



# UNIVERSITY OF HAWAII SYSTEM

## Legislative Testimony

---

Testimony Presented to the  
House Committee on Higher Education and Technology  
Friday, February 11, 2022 at 2:00 p.m.

by

Vassilis L. Syrmos, Vice President for Research and Innovation  
University of Hawai'i System

HB 2229 HD1 – RELATING TO COASTAL EROSION

Chair Takayama, Vice Chair Clark, and Members of the Committee:

The University of Hawai'i (UH) supports HB 2229 HD1 which establishes and appropriates funds for UH to conduct a two-year study on the impacts of sand bag walls on sand movement patterns and coastal erosion at 'Ehukai Beach Park on O'ahu.

As a complement to Hawai'i Sea Grant's excellent research, education and policy efforts, UH Mānoa's College of Engineering has a Coastal Erosion Shoreline Team that brings to bear a cadre of research expertise in geotechnics, transportation, infrastructure and shoreline hardening that can provide working, technical solutions to this important study.

Thank you for the opportunity to testify on this measure.

DAVID Y. IGE  
GOVERNOR



CRAIG K. HIRAI  
DIRECTOR

GLORIA CHANG  
DEPUTY DIRECTOR

EMPLOYEES' RETIREMENT SYSTEM  
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND  
OFFICE OF THE PUBLIC DEFENDER

**STATE OF HAWAII**  
**DEPARTMENT OF BUDGET AND FINANCE**  
P.O. BOX 150  
HONOLULU, HAWAII 96810-0150

ADMINISTRATIVE AND RESEARCH OFFICE  
BUDGET, PROGRAM PLANNING AND  
MANAGEMENT DIVISION  
FINANCIAL ADMINISTRATION DIVISION  
OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

**WRITTEN ONLY**  
TESTIMONY BY CRAIG K. HIRAI  
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE  
TO THE HOUSE COMMITTEE ON HIGHER EDUCATION & TECHNOLOGY  
ON  
HOUSE BILL NO. 2229, H.D. 1

**February 11, 2022**  
**2:00 p.m.**  
**Room 309 and Videoconference**

RELATING TO COASTAL EROSION

The Department of Budget and Finance (B&F) offers comments on this bill.

House Bill No. 2229, H.D. 1: requires the University of Hawai'i (UH) to study the impact of sandbag walls on sand movement patterns and coastal erosion at Ehukai Beach Park; appropriates an unspecified amount of general funds for FY 23 to UH for the study, and extends the lapse date of the appropriation to June 30, 2024; and mandates a report to the Legislature.

B&F notes that, with respect to the general fund appropriation in this bill, the federal Coronavirus Response and Relief Supplemental Appropriations Act requires that states receiving Elementary and Secondary School Emergency Relief (ESSER) II funds and Governor's Emergency Education Relief II funds must maintain state support for:

- Elementary and secondary education in FY 22 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and

- Higher education in FY 22 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

Further, the federal American Rescue Plan (ARP) Act requires that states receiving ARP ESSER funds must maintain state support for:

- Elementary and secondary education in FY 22 and FY 23 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 and FY 23 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

The U.S. Department of Education has issued rules governing how these maintenance of effort (MOE) requirements are to be administered. B&F will be working with the money committees of the Legislature to ensure that the State of Hawai'i complies with these ESSER MOE requirements.

Thank you for your consideration of our comments.



Written Statement of  
**DR. PATRICK K. SULLIVAN**  
**PRESIDENT/CEO OCEANIT**

Before the

**HOUSE COMMITTEE ON HIGHER EDUCATION & TECHNOLOGY**

Friday, February 11, 2022  
2:00 p.m.  
State Capitol, Conference Room 309 Via Videoconference

In Support of

**HB2229 RELATING TO COASTAL EROSION**

To: Chair Representative Gregg Takayama, Vice Chair Representative Linda Clark and Members of the Committees

From: Dr. Patrick K. Sullivan, President/CEO

Re: Testimony in Support of HB2229

Honorable Chair, Vice-Chair and Committee Members:

Thank you for the opportunity to submit testimony **in support of HB2229**

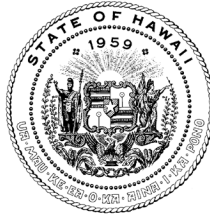
This bill suggests a program to study the impact of temporary protection on sand movement patterns and erosion at Ehukai Beach Park. We strongly support this measure in hopes that decisions on appropriate strategies to manage the critical erosion hazards at Ehukai may be based on data, science, and engineering knowledge.

Beach and shoreline erosion are a persistent problem in our islands, and we often aim to develop wholistic nature-based approaches to mitigate threats to public safety while protecting the natural environment. Historically, much of the shoreline on parts of Oahu, Maui and Kauai has been armored in response to the erosion trend. Alternatives to shoreline hardening such as beach and reef ecosystem restoration, dune enhancement, erosion accommodation, and managed retreat may be feasible in some cases.

While alternatives to shoreline hardening may be available, the processes for managing coastal zone issues in Hawaii seems too inefficient to effectively respond to the climate crises, which is accelerating in pace and breadth across our islands. Perhaps in recognition of this issue, the State Office of Planning and Sustainable Development recently committed to develop a regional shoreline management strategy specific to Hawaii's unique context. In the meantime, our coastal communities are grappling with a wicked problem that cannot be solved by a single landowner or government agency. While state leaders work toward a new comprehensive shoreline management strategy and communities work through the layered regulatory process, temporary erosion control is an important tool to protect the public while also preventing damage to environmental resources in some cases.

Temporary erosion control may take many forms. “Sandbag walls” constructed of geotextile fabrics and beach sand are seen as a low-impact design when compared to the alternatives. Best practices in the design and construction of these structures can further limit the risk of negative impacts. Modern technology allows for detailed monitoring of the beach in response to shoreline hardening and beach changes may be evaluated and reported by experienced professionals. We strongly support this bill since the proposed study may gather important data and further the understanding of beach response to temporary shoreline hardening.

DAVID Y. IGE  
GOVERNOR OF HAWAII



**STATE OF HAWAII**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**  
OFFICE OF CONSERVATION AND COASTAL LANDS  
POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

**SUZANNE D. CASE**  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

**ROBERT K. MASUDA**  
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

**Testimony of**  
**SUZANNE D. CASE**  
**Chairperson**

**Before the House Committee on**  
**HIGHER EDUCATION & TECHNOLOGY**

**Friday, February 11, 2022**  
**2:00 pm**

**State Capitol, Conference Room 309 & Videoconference**

**In consideration of**  
**HOUSE BILL 2229, HOUSE DRAFT 1**  
**RELATING TO COASTAL EROSION**

House Bill 2229, House Draft 1, proposes to appropriate funds to the University of Hawaii to study the impact of sandbag walls, or "sand burritos," on sand movement patterns and coastal erosion at Ehukai Beach Park; including from the shoreline area near Ke Iki road to Sunset beach. **The Department of Land and Natural Resources (Department) appreciates that the Legislature is addressing coastal erosion, and offers the following comments:**

Hawaii Administrative Rules Chapter 13-5 currently allow the Chairperson (Chair) of the Board of Land and Natural Resources to issue emergency permits when there is an imminent threat to public health or safety. This has been an important tool for the Department when addressing short-term emergencies such as floods, landslides, tsunamis, and storms.

Temporary erosion control devices with sandbag walls, or "burritos," and tarp systems can have similar effects as concrete and rock seawalls and other hardening structures. As such, emergency permits are designed to be temporary in nature, and to provide landowners time with the conditioned expectation that they work on short, mid, and long-range options.

In the proposed study area, the Department has authorized fifteen permits for emergency shoreline protection, fronting approximately twenty-eight parcels. We have attached an exhibit listing these permits, along with their current status, to assist the Committee in decision making.

The Department notes that one of the structures has been removed, and the authorizations for the remaining structures have expired. The Department's Office of Conservation and Coastal Lands is

currently investigating potential permit non-compliance with each of the remaining erosion control structures. Alleged issues include the failure of the permit holders to secure the proper land disposition from either the Department's Land Division or the County Department of Parks and Recreation, failure to file a completion report, failure to clean debris from failed structures, and the use of unauthorized materials.

We do not know the outcome of the investigation at this time and cannot guarantee that the sandbags will remain for the duration of the proposed study period.

The Department also notes that landowners have engaged in both authorized and unauthorized "sand pushing" in the study area, that is, removing sand from a stream mouth or the nearby beach to create temporary berms fronting their property. These can also impact beach processes.

Given the above, the Department would recommend the following addition to the Bill (underlined):

SECTION 1. (a) The University of Hawaii shall establish and implement a two-year program to study the impact of the installation or removal of sandbag walls, often referred to as "sand burritos", as well as the impact of sand pushing, on sand movement patterns and coastal erosion and on public trust resources, including beach access, coastal water quality, and recreation, at Ehukai Beach Park, including from the shoreline area near Ke Iki Road to Sunset Beach.

While our preference is that proposed appropriations be directed to developing more appropriate avenues of implementable and cross-jurisdictional near-term adaptive management and planning, the Department acknowledges the value in studying the specific impacts of sandbag walls and sand pushing on a specific beach.

Thank you for the opportunity to comment on this measure.

<b>Tax Map</b>	<b>Address</b>	<b>Date, permit number</b>	<b>Status as of February 9, 2022</b>
5 9 002 002	59-147 Ke Nui Rd	13-Aug-18	Permit expired; under investigation for alleged non-compliance with permit conditions
5 9 002 003		Emergency CDUP OA-19-06	
5 9 002 004	59-149 Ke Nui Rd	18-Jul-18 Emergency CDUP OA-19-01	Permit expired; under investigation for alleged non-compliance with permit conditions
5 9 002 005	59-151 A Ke Nui Rd	18-Jul-18 Emergency CDUP OA-19-02	Permit expired; under investigation for alleged non-compliance with permit conditions
5 9 002 008	59-155 Ke Nui Rd	29-Oct-18 Emergency CDUP OA-19-14	Permit expired; under investigation for alleged non-compliance with permit conditions
5 9 002 011	59-161 Ke Nui Rd	16-Oct-19 Emergency CDUP OA-20-07	Permit expired; under investigation for alleged non-compliance with permit conditions
5 9 002 012	59-163 Ke Nui Rd		
5 9 002 017	59-165 D Ke Nui Rd	25-Sep-18 Emergency CDUP OA-19-05	Permit expired; under investigation for alleged non-compliance with permit conditions
5 9 002 018	59-165 B Ke Nui Rd	17-Oct-13 Emergency Permit OA-14-01	Permit expired; under investigation for alleged non-compliance with permit conditions
5 9 002 027	59-175 B Ke Nui Rd	21-Sep-18 Emergency CDUP OA-19-07	Permit expired; under investigation for alleged non-compliance with permit conditions
5 9 019 047	59-269 Ke Nui Rd	25-Jan-18 Emergency CDUP OA-18-07	Permit expired; under investigation for alleged non-compliance with permit conditions
5 9 019 048	59-271 Ke Nui Rd		
5 9 019 049	59-275 Ke Nui Rd		
5 9 019 050	59-279 Ke Nui Rd		
5 9 019 051	59-281 Ke Nui Rd		
5 9 020 001	59-145 Ke Nui Rd		
5 9 020 006	59-297 Ke Nui Rd	03-Jul-19 Emergency CDUP OA-19-23	Permit expired; under investigation for alleged non-compliance with permit conditions
5 9 020 008	59-305 Ke Nui Rd	23-May-19 Emergency CDUP OA-19-19	Permit expired; under investigation for alleged non-compliance with permit conditions
5 9 020 007	59-301 Ke Nui Rd	21-Sep-18 Emergency CDUP OA-19-09	Permit expired; under investigation for alleged non-compliance with permit conditions
5 9 020 010	59-309 Ke Nui Rd		
5 9 020 011	59-311 Ke Nui Rd		
5 9 020 013	59-317 Ke Nui Rd		
5 9 020 014	59-3119 Ke Nui Rd		
5 9 020 017	59-329 D Ke Nui Rd		
5 9 020 020	59-165 Ke Nui Rd	18-Jun-19 Emergency CDUP OA-19-22	Landowner reports that structure removed
5 9 020 057	59-297 Ke Nui Rd	18-Jun-19 Emergency CDUP OA-19-21	Permit expired; under investigation for alleged non-compliance with permit conditions
5 9 020 058	59-199 D Ke Nui Rd	11-Jul-19 Emergency CDUP OA-19-24	Permit expired; under investigation for alleged non-compliance with permit conditions



February 10, 2022

Aloha Chair Takayama, Vice Chair Clark, and Members of the HET Committee,

I write in **strong support** of HB2229 HD1 - RELATING TO COASTAL EROSION **and suggest one clarifying amendment.**

I greatly appreciate that my Representative Sean Quinlan introduced this bill as one of many steps to address a severe shoreline erosion problem on the North Shore of O‘ahu and to consider the statewide implications for public trust resources of these kinds of failing “bandaid” erosion control measures.

I have lived on the North Shore of O‘ahu since 1990, and for the first five years, I lived on Ke Iki Road, in the ‘Ehukai to Sunset area where the beaches have been heavily eroding for the past decade, threatening homes and impairing beach access, water quality, and recreation.

From living in the area, and walking, swimming, and snorkeling along these beach for years, I am familiar with the deteriorating shoreline conditions for these beachfront homes and the major shifts in sand movement from the seasonal swells, wind, and severe weather events. Climate change and sea level rise will only exacerbate all of the erosion trends we have witnessed in recent years.

I am also a member of the North Shore Coastal Resilience Working Group, an inter-agency, UH Sea Grant, NGO/community inclusive group started in 2021, which is studying this specific area and the issues discussed in the bill.

The UH study proposed by this bill is very important as one of many steps to address the severe erosion problem in this area and threats to public and private property.

This area has gone from one of the most spectacular scenic wide sand beaches in the State, with outstanding water quality, to a “**war zone**” of soft and hard erosion control measures, heavy equipment desperately sand pushing, “borrowing” sand (which belongs to the public trust) from stream mouths to protect private home frontage, the shocking blocking of public access points due to hazardous drop offs, sandbags, and obstruction, and debris from homeowners’ “temporary” erosion-control measures ending up in the nearshore waters.

The area is really a **disaster scene**. Here is a photo from January 30, 2022 of the erosion along the Ke Iki Road area near “Kammies” surf break. As you can see, the “burritos” can be ineffective, can block public access, and the collapsed deck of the house on the left indicates that either historic or new “band aid,” “sandbag,” or “burrito” measures will not protect these beachfront homes from the inevitable scouring that has now been set in motion by a domino effect of haphazard homeowner “remedies.” This is just one snapshot of the shoreline erosion tragedies that have beset this coastal area and caused substantial interference with public access and public trust resources.



This bill, if appropriately funded, will go a long way to assisting a number of ongoing efforts to come up with mitigation measures and solutions for this accelerated and tragic erosion problem.

However, as suggested by Sea Grant testimony on the original bill, the impacts are fairly well understood. It is the solutions that need to be tested and implemented.

The clarifying amendment that I suggest is to amend Page 1, line 15-17, as follows (to not just study the problem but to take some action): “study, **and test the feasibility of alternative solutions with willing landowners and in collaboration with the relevant state and county agencies to**, the impact of sandbag walls or “sand burritos . . . .”

I appreciate your consideration and passage of this HB2229 HD1.

Mahalo,

Denise Antolini  
Pūpūkea Resident