



# **UNIVERSITY OF HAWAII SYSTEM**

## **Legislative Testimony**

---

Testimony Presented to the  
Senate Committees on Higher Education and Water and Land  
Thursday, March 17, 2022 at 3:00 p.m.

by

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

### **HB 2229 HD1 – RELATING TO COASTAL EROSION**

Chairs Kim and Inouye, Vice Chairs Kidani and Keith-Agaran, and Members of the Committees:

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.

A combination of Hawai'i Sea Grant's excellent research, education and policy efforts with working, technical solutions from the UH Mānoa's College of Engineering Coastal Erosion Shoreline Team in geotechnics, transportation, infrastructure and shoreline hardening, provides the full range of skillsets necessary to conduct 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 SENATE COMMITTEES ON HIGHER EDUCATION AND  
WATER AND LAND  
ON  
HOUSE BILL NO. 2229, H.D. 1

**March 17, 2022  
3:00 p.m.  
Room 229 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.

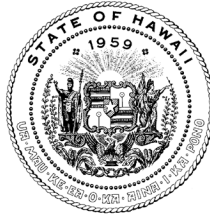
Further, the federal American Rescue Plan (ARP) Act requires that states receiving ARP ESSER funds must maintain state support for:

- 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.

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 Senate Committees on**  
**HIGHER EDUCATION**  
**and**  
**WATER AND LAND**

**Thursday, March 17, 2022**  
**3:00 pm**

**State Capitol, Conference Room 229 & 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 for a two-year study on the impact of sandbag walls, or "sand burritos," 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. **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. The Department has attached an exhibit listing these permits, along with their current status, to assist the Legislature 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.

The Department does 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 (underscored) to this measure:

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 the Department's 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.

Attachment: Emergency Permits for Shoreline Structures along Ke Nui Road, Oahu

| <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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>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<br>Emergency CDUP OA-19-22   | Landowner reports that structure removed  |
| 5 9 020 057    | 59-297 Ke Nui Rd   | 18-Jun-19<br>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<br>Emergency CDUP OA-19-24   | Permit expired; under investigation for alleged non-compliance with permit conditions |



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

Before the

**SENATE COMMITTEE ON HIGHER EDUCATION &  
COMMITTEE ON WATER AND LAND**

Thursday, March 17, 2022  
3:00 p.m.

State Capitol, Conference Room 229 Via Videoconference

In Support of

**HB2229 RELATING TO COASTAL EROSION**

To: Chair Senator Donna Mercado Kim, Chair Lorraine R. Inouye, Vice Chair Senator Michelle N. Kidani, Vice Chair Senator Gilbert S.C. Keith-Agaran 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.





3/15/2022

HRE/WTL Committees  
Hawai'i State Capitol  
Honolulu, Hawai'i 96813

Dear Chairs Kim and Inouye, Vice Chairs Kidani and Keith-Agaran, and members of the Senate Committees on Higher Education and Water and Land,

**Position: Support HB2229 with amendments**

The Surfrider Foundation is a national nonprofit organization dedicated to the protection and enjoyment of our ocean, waves, and beaches. We support the intent of HB2229, but suggest the following amendments to ensure that this measure can help the state more proactively manage our coastlines.

Suggested amendments:

1. In light of the recognized impacts of shoreline protection structures, suggest inclusion of the development of a solution-oriented coastal adaptation plan that includes a hazard risk and vulnerability assessment of the area, an evaluation of adaptation measures pathways and action triggers that includes strategic retreat of shoreline infrastructure.
2. A complementary effort to develop a beach and dune management plan for these important stretches of beaches would also serve an important role in identifying potential sediment management techniques and coastal dune restoration and management strategies.
3. Any study of the impact of sandbag walls or other shoreline protection structures should also include a summary and assessment of potential policy and rule amendments and alternatives to emergency shoreline protection.
4. Data on historical and seasonal shoreline change exists for most of the state and is regularly updated by the University of Hawai'i researchers, this data compliments the intent to develop an assessment of an evaluation geotextile "burritos."
5. Long term beach conservation planning, maintenance and management should be part of larger comprehensive and cooperative planning efforts among a range of state and county agencies and communities. Coastal community adaptation measures including strategic or phased relocation of coastal development and infrastructure should be included in coastal management plans and will improve community resilience to coastal hazards and sea level rise while conserving and restoring beach environments.

The science and impacts on the beach clearly indicate that "burritos" can be ineffective, can block public access, and "band aid," "sandbag," or "burrito" measures will not protect beachfront homes from the long-term impacts of sea level rise. With this in mind, we ask you to support HB2229 with the above amendments that will strengthen its ability to support long-term and holistic management plans for the coastlines of Hawai'i.

Thank you for your consideration of this testimony in support of HB2229, submitted on the behalf of the Surfrider Foundation's 4 Chapters in Hawai'i and all of our members who live in the state and visit to enjoy the many coastal recreational opportunities offered by all of the islands' coastlines.

Sincerely,

Lauren Blickley  
Hawai'i Regional Manager  
Surfrider Foundation

**HB-2229-HD-1**

Submitted on: 3/16/2022 5:42:47 AM

Testimony for HRE on 3/17/2022 3:00:00 PM

| <b>Submitted By</b> | <b>Organization</b> | <b>Testifier Position</b> | <b>Testify</b>         |
|---------------------|---------------------|---------------------------|------------------------|
| Eric Freeman        | Individual          | Support                   | Written Testimony Only |

Comments:

Aloha,

I am a homeowner on the North Shore of Oahu at Cami's beach near Rocky Point. Our area has experienced extreme seasonal erosion this year culminating with one of our neighbor's houses falling onto the beach a few weeks ago. I am in support of the new bill but respectfully request the expansion of the study to include:

- a) 'rock revetment' wall impact; located next to the proposed study area at OFF THE Wall at Pipeline Beach.
- b) cement retaining walls and rock groins built at Waikiki beach
- c) harbor jettys located at Haleiwa Harbor

The increase in scope is necessary to provide a view on most of the shoreline management techniques currently employed on the North Shore, ie, ; au natural, sand burriotos, rock revetments, groins, jettys and retaining walls to find a sustainable solution for the area.

Respectfully,

Eric Freeman, North Shore resident

**HB-2229-HD-1**

Submitted on: 3/16/2022 7:45:18 AM

Testimony for HRE on 3/17/2022 3:00:00 PM

| <b>Submitted By</b> | <b>Organization</b> | <b>Testifier Position</b> | <b>Testify</b>            |
|---------------------|---------------------|---------------------------|---------------------------|
| peter halford       | Individual          | Support                   | Written Testimony<br>Only |

Comments:

I am writing in strong support of this bill. I have been a resident of the N shore for over 25 years and have been witness to the ever changing shoreline and sand movement. 3 years ago our home was in dire straights, and we were given approval from the DNLR for placement of sand "burritos". Needless to say it saved our house and minimized loss of property into the ocean. Today the beach is robust and there is over 200 feet of sand again. There are no signs of any exposed "burritos". This study makes total sense to guide the DNLR in its North Shore Coastal Management efforts. We need expertise backed by evidence based science to best plan the future for this coastline. Thank you, Peter Halford 59-317 Ke Nui Road

**HB-2229-HD-1**

Submitted on: 3/16/2022 10:29:35 AM

Testimony for HRE on 3/17/2022 3:00:00 PM

| <b>Submitted By</b> | <b>Organization</b> | <b>Testifier Position</b> | <b>Testify</b>         |
|---------------------|---------------------|---------------------------|------------------------|
| rodney youman       | Individual          | Support                   | Written Testimony Only |

Comments:

We purchased our home on the North Shore of Oahu (in the area affected/mentioned in this Bill), in the summer of 2016. Since then, we have lost 1/3 (one third) of our land. I have submitted official shoreline surveys to the State of Hawaii showing this tremendous loss of property. The loss has been the result 100% of erosion. I am certain that our home would have fallen into the Ocean had it not been for the sand burritos that were put in place from 2018, until 2021, when the emergency opermit expired. There is no question that sand burritos, although a temporary solution, have saved our homes. Proof of this is that the house that fell into the Ocean recently, was the only home that had not taken any erosion control measures (such as sand burritos) in the area. The DLNR has stated repeatedly that our homes are built on sand and that we are all basically doomed. But it ignores the fact that these homes were built decades ago (ours was built more than 80 years ago). When they were built, the beaches were much wider than today, and the erosion control measures we need today were not even remotely necessary. The people who built these homes did not come to the risk. On the contrary, the risk has slowly come to our homes, due to rising sea levels worldwide.

We desperately need an extension of our burrito permits. And then, we need more permanent solutions to this worldwide problem. In Waikiki, the beachfront hotels were not told that they were doomed and had to leave. To relocate. No, in places like that, more permanent solutions have been put in place. The North Shore is no different. There are families who have been here for a long time. We cannot be expected to just let our homes fall into the Ocean and find homes elsewhere. That is NOT the solution.

Thank you very much.

Rodney R. Youman