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OFFICE OF THE PUBLIC DEFENDER

**STATE OF HAWAII**  
**DEPARTMENT OF BUDGET AND FINANCE**  
P.O. BOX 150  
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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 PUBLIC SAFETY,  
INTERGOVERNMENTAL, AND MILITARY AFFAIRS  
ON  
HOUSE BILL NO. 2302, H.D. 1

**March 17, 2022**  
**3:05 p.m.**  
**Room 229 and Videoconference**

RELATING TO THE UNIVERSITY OF HAWAII SEA GRANT COLLEGE PROGRAM

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

House Bill No. 2302, H.D. 1, appropriates an unspecified amount of general funds for FY 23 for the continued operation and disaster preparedness outreach efforts of the University of Hawai'i Sea Grant College Program.

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.



# UNIVERSITY OF HAWAII SYSTEM

## Legislative Testimony

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Testimony Presented Before the  
Senate Committee on Higher Education and  
Senate Committee on Public Safety, Intergovernmental, and Military Affairs  
Thursday, March 17, 2022 at 3:05 p.m.

By  
Darren T. Lerner, PhD  
Director  
University of Hawai'i Sea Grant College Program  
And  
Michael Bruno, PhD  
Provost  
University of Hawai'i at Mānoa

### HB 2302 HD1 – RELATING TO THE UNIVERSITY OF HAWAII SEA GRANT COLLEGE PROGRAM

Chairs Kim and Nishihara, Vice Chairs Kidani and DeCoite, and members of the committees:

The University of Hawai'i Sea Grant College Program (Hawai'i Sea Grant) supports HB 2302 HD1, provided that its passage does not replace the priorities as indicated in the University's Board of Regents Approved Budget.

This Bill is urgently needed because there is more hazard risk than people realize, particularly with regard to hurricanes. Note the following:

- 1) A Pacific Disaster Study conducted after the near hit of Hurricane Lane in 2018, estimated a Category 2 strike on O'ahu would result in 52,000 displaced households and 27 billion dollars in damage.
- 2) A 2019 Hurricane Behavioral Study by FEMA, the Army Corps of Engineers and the Hawai'i Emergency Management Agency found the average citizen was ill-prepared and had not properly gathered their supplies or readied their homes. The number one recommendation was increased education and outreach. The second was help in hardening homes. Both are important to make the State resilient.
- 3) A 2019 Communication Outreach and Education Study conducted by Hawai'i Sea Grant, at the request of the 2017 HI State Legislature, concluded that education and outreach should be significantly increased with traditional and non-traditional methods on a continuous long-term basis to inform and prepare citizens in the State. The report was submitted to the 2020 Legislature and is available online at the link below.

- 4) In 2020 Hurricane Douglas threatened the Hawaiian Islands and a Hurricane warning was called for O'ahu for the first time in recent history. A 2021 presentation by the Central Pacific Hurricane Center indicates tropical cyclone tracks may shift north in the future attributed to warming waters and climate change. See graphic below. This would increase the risk of Hurricanes such as Douglas impacting the State.

Hawai'i Sea Grant is well positioned to continue and increase its education and outreach of hurricane risk and preparation around the State. The *Homeowner's Handbook to Prepare for Natural Hazards – 4<sup>th</sup> Edition* (link below) provides useful tips regarding readiness for natural hazards such as tsunami, earthquakes, floods and hurricanes. The handbook lists local civil defense and emergency management agency information, provides guidance on emergency supplies, evacuation planning, and explains various measures to reduce property damage through home retrofit. This publication has gone through ten print runs with over 100,000 copies and has been modified for thirteen U.S. states and other countries based off the Hawai'i book. The 4<sup>th</sup> Edition, released in late 2019, was a major update with more options on home retrofit, as well as evacuation planning guidance and sections on volcanoes and climate change.

In the last three years, Sea Grant has participated in over 100 outreach events, and given almost 30,000 Homeowner's Handbooks. We have provided free books to individual homeowners as well as large organizations such as: (Catholic Charities – 280), (AARP – 63), (Be Ready Mānoa - 80), (Zephyr Insurance – 200), (Kāhala Emergency Fair – 80), (Cross Island Resilience Network consisting of 17 Communities on O'ahu – 2,800), Hawai'i Public Library System – 480 with another 600 requested for all 51 public libraries around the State). All Emergency Management and Civil Defense Agencies have receive an initial allotment of 1,000 books. Maui Emergency Management Agency has requested another 600. It is estimated about 7,000 homes have been retrofitted since 2007, through the education and outreach of many organizations, including Hawai'i Sea Grant. Many homeowner's who retrofit plan on using their locations to shelter their families and/or friends, so there is a multiplier in the relief on hurricane shelter demand.

Hawai'i Sea Grant is committed to continued partnership with all emergency management and civil defense agencies at the State and county level in order to make our communities more resilient and foster a greater culture of preparedness in Hawai'i.

Thank you for the opportunity to testify on this measure.

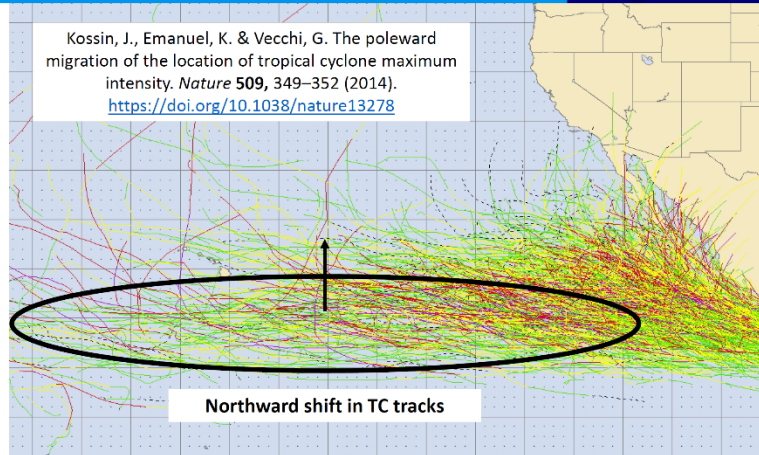
## Impacts of a Warming Ocean

Observed: covering the 31 year period 1982-2012



Central Pacific  
Hurricane Center

Kossin, J., Emanuel, K. & Vecchi, G. The poleward migration of the location of tropical cyclone maximum intensity. *Nature* 509, 349–352 (2014).  
<https://doi.org/10.1038/nature13278>



Northward shift in TC tracks

[weather.gov/cphc](http://weather.gov/cphc)

@NWSHonolulu

Homeowners Handbook to Prepare for Natural Hazards – 4<sup>th</sup> Edition

<http://seagrant.soest.hawaii.edu/homeowners-handbook-to-prepare-for-natural-hazards/>

Communication Plan and Outreach Strategy Submitted to the 2020 Legislature

<https://seagrant.soest.hawaii.edu/wp-content/uploads/2020/09/Communication-Strategy-Outreach-Plan-V.1.pdf>





STATE OF HAWAII  
HAWAII STATE PUBLIC LIBRARY SYSTEM  
HAWAII STATE LIBRARY  
HAWAII & PACIFIC SECTION  
478 SOUTH KING STREET  
HONOLULU, HAWAII 96813

**Written Only**  
Testimony Presented Before the  
Senate Committee on Higher Education  
Senate Committee on Public Safety, Intergovernmental, and Military Affairs  
Thursday, March 17, 2022, 3:05 p.m.  
by  
Linda Sueyoshi  
Librarian  
Hawaii & Pacific Section/Hawaii Documents Center  
Hawaii State Library

HB 2302 HD1 – Relating to the University of Hawaii Sea Grant College Program

Chairs Kim and Nishihara, Vice Chairs Kidani and DeCoite, and members of the committees:

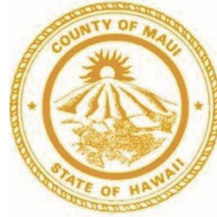
I am writing my support for HB 2302 HD1. The Hawaii Documents Center at the Hawaii State Library was grateful to receive 16 boxes of the “Homeowner’s Handbook to Prepare for Natural Hazards” on behalf of the Hawaii State Public Library System earlier this year. We were able to distribute copies to libraries on each island as free giveaways, and made an announcement on our website to alert the public to this resource.

Hawaii’s public libraries have always been a reliable source for our community’s informational needs, so it makes perfect sense to be able to offer this extremely useful handbook, for free, to the people we serve. With climate change on everyone’s mind, there has never been a better time to prepare yourself for the threat of natural disasters.

As it turns out, there is a high demand for this resource in certain communities. For instance, Kahuku Public & School Library urgently asked for more copies for their library users. As their branch manager said, “We’re seeing erosion damage daily up here.” The Keaau and Kihei branches have also asked for more than what we initially gave them, saying their copies disappeared quickly, a testament to how useful they are. We are hoping for 600 more copies of this publication for our libraries this year, if possible. We would like to thank the University of Hawaii Sea Grant once again for this opportunity to get this valuable resource out into our communities!

**MICHAEL P. VICTORINO**  
Mayor

**HERMAN ANDAYA**  
Administrator



County of Maui  
**MAUI EMERGENCY MANAGEMENT AGENCY**  
200 SOUTH HIGH STREET  
WAILUKU, MAUI, HAWAII 96793  
PHONE: (808) 270-7285  
FAX: (808) 270-7275  
emergency.management@mauicounty.gov

**LATE**

16 March 2022

**TESTIMONY ON HOUSE BILL 2302, HD 1  
RELATING TO THE UNIVERSITY OF HAWAII SEA GRANT COLLEGE PROGRAM**

**TESTIMONY TO:  
SENATOR DONNA MERCADO KIM, CHAIR  
SENATOR MICHELLE KIDANI, VICE CHAIR  
MEMBERS OF THE SENATE COMMITTEE ON HIGHER EDUCATION**

**SENATOR CLARENCE NISHIHARA, CHAIR  
SENATOR LYNN DECOITE, VICE CHAIR**

**BY:  
HERMAN ANDAYA  
ADMINISTRATOR  
MAUI EMERGENCY MANAGEMENT AGENCY**

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Thank you for this opportunity to testify in **SUPPORT** of HB 2302, HD1.

HB 2302, HD1 appropriates funding for the continued operation and disaster preparedness outreach efforts of the University of Hawaii Sea Grant College program. The University of Hawaii Sea Grant College program allowed for the development and publication of the Home Owner's Handbook, 4<sup>th</sup> Edition. Maui Emergency Management Agency received 1000 copies of the Home Owner's Handbook, 4<sup>th</sup> Edition in January 2020 to provide to communities in Maui County at various Emergency Preparedness events. Maui Emergency Management Agency submitted a request for 600 additional copies of the Home Owner's Handbook, 4<sup>th</sup> Edition to support our 2022 Emergency Preparedness outreach efforts.

This book provides invaluable information for homeowners on using hazard mitigation building techniques to protect their homes from storm damage.



*Utilizing Emergency Management Principles, We Protect All Persons Within  
The County of Maui to Achieve Whole Community Resilience*





TESTIMONY PRESENTED BEFORE THE  
SENATE COMMITTEE ON HIGHER EDUCATION  
SENATE COMMITTEE ON PUBLIC SAFETY, INTERGOVERNMENTAL, AND MILITARY AFFAIRS  
March 17, 2022 3:05 PM

By

Dennis Hwang

HB2302 – RELATING TO THE UNIVERSITY OF HAWAII SEA GRANT COLLEGE PROGRAM

Chairs Kim and Nishihara, Vice Chairs Kidani and DeCoite, and members of the committees:

I am Dennis Hwang, Faculty at the UH Sea Grant College Program. Since 2007, I have helped Sea Grant with hazard education and outreach related to the Homeowner's Handbook to Prepare for Natural Hazards. In 2020, we also sent to the Legislature an Education and Outreach Plan to Prepare Hawaii for Natural Hazards. The Plan was based on Lessons Learned from conducting over 300 outreach/education events and concepts of Social Science. The links for both the Handbook and Communication Plan are found below.

Today I am speaking as a private citizen. I support HB2302 as there is more risk than the general public realizes. To make our community more resilient, it will take a concentrated effort using traditional education/outreach methods as well as concepts of Social Science. Sea Grant is well suited to carry out this mission as shown by the resources provided below.

Please note:

- 1) Through research, field work and partnerships – the Handbook provides the most up to date mitigation measures to reduce hurricane damage to homes. We work with structural engineers and architects, as well as agencies such as the FEMA Building Science Branch and Institute of Building and Home Safety. We have participated in field assessments after Hurricane Harvey hit Texas in 2017 and Hurricane Ida struck Louisiana in 2021. The Handbook provides guidance measures that are hazard resilient, environmentally sustainable and adaptive to a changing climate.
- 2) There is strong demand for the book. Kauai Emergency Management Agency and Hawaii County Civil Defense each received 1,000 books. The City Emergency Management Agency and the Office of Climate Change, Sustainability and Resilience received 11,000 books, many going to city employees. Maui Emergency Management Agency recently asked for 600 more books after receiving an initial 1,200. The Hawaii Public Library System, which distributes to all 51 of their libraries around the State on all islands recently asked for 600 books after receiving an initial 480. The Cross Island Resilience Network which consists of 17 resilience organizations around Oahu (Aina Haina, Foster Village, Hauula, Kaaawa, Kahuku, Kailua, Kalihi, Kaneohe/Kahuku, Laie, Leeward Oahu, Manoa, Mililani, North Shore, Pearl Harbor/Hickam, Wahiawa/Whitmore Village, Waikiki, and Waimanalo) requested and picked up 2,800 books. Catholic Charities and the Lanakila Multi-Purpose Senior Center asked for 300 books. Then there are the hundreds of books we give to individual homeowner's who seek advice on how to prepare family evacuation plans or strengthen their homes for a hurricane.
- 3) A major vulnerability for Hawaii is shelter space for a hurricane. Through education with our partners approximately 7,000 homes have been retrofitted. While more needs to be done,

this is significant since many of these homeowners plan to shelter relatives during severe weather. This will relieve demand on shelter space.

- 4) In general, Hawaii residents need to be better educated on where to go during a hurricane. In the Handbook, there is a shelter in place table which provides scientific and engineering based guidance on when people can shelter in their homes (see below). During a hurricane, many people may shelter in homes that are not sufficiently strong. Systematic and sustained education/outreach which HB2302 provides can help homeowner's create sound evacuation/emergency plans.

**Table 3-4. Shelter-In-Place Guidance (please read instructions in Part 3.6)**

<b>ABILITY TO SHELTER IN PLACE DURING A HURRICANE</b>									
PLEASE READ INSTRUCTIONS BEFORE USING THIS TABLE									
Safe room						FEMA or Hawai'i Residential Safe Room			
Concrete or CMU wall house	Concrete CMU wall house in poor condition	→	Concrete CMU wall house in good condition	→	Concrete CMU wall house with hurricane clips	→	Concrete CMU wall house with hurricane clips & window protection	→	Concrete CMU wall house with hurricane clips exceeding code & window protection
Double wall house	Double wall house in poor condition	→	Double wall house in good condition	→	Double wall house with hurricane clips	↗	Double wall house with hurricane clips & window protection	→	Double wall house with hurricane clips, window protection, garage & roof reinforced
Single wall house	Single wall house in poor condition	→	Single wall house in good condition	→	Single wall house with hurricane clips	→	Single wall house with hurricane clips & window protection	→	Single wall house with clips, window protection and foundation upgrades
Suggested Action	<b>Unsafe</b> Evacuate! Do Not Shelter in place	<b>Marginal</b> Shelter in place up to a Tropical Storm	<b>Good</b> Shelter in place up to Category 1 hurricane	<b>Better</b> Shelter in place up to Category 2 hurricane	<b>Best</b> Shelter in place up to Category 3 hurricane				

\*Based on discussions and review with Ian Robertson, Professor, UH Mānoa, Civil and Environmental Engineering; Gary Chock, Structural Engineer, Martin & Chock Inc.; Tim Waite, PE, Simpson Strong-Tie; and Kevin Richards, Natural Hazards Officer, Hawai'i Emergency Management Agency.

Helping residents to gather emergency supplies, create evacuation plans and strengthen homes will result in a more resilient Hawaii. For the reasons above, I support HB2302 - Thank you for the opportunity to testify.

Dennis Hwang  
94-1042 Pulelo St.  
Waipahu, HI 96797 -- 808-544-8608

*Homeowners Handbook to Prepare for Natural Hazards – 4<sup>th</sup> Edition*  
<http://seagrant.soest.hawaii.edu/homeowners-handbook-to-prepare-for-natural-hazards/>

*Communication Plan and Outreach Strategy Submitted to the 2020 Legislature*  
<https://seagrant.soest.hawaii.edu/wp-content/uploads/2020/09/Communication-Strategy-Outreach-Plan-V.1.pdf>

**HB-2302-HD-1**

Submitted on: 3/15/2022 5:48:08 PM

Testimony for HRE on 3/17/2022 3:05:00 PM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Alice Saul	Individual	Support	Written Testimony Only

Comments:

Testimony on HB2302 HD1 Relating to the University of Hawaii Sea Grant College Program

Please support the passage of the provision in HB2302 HD1 which aims to facilitate the distribution of The Homeowners Handbook to Prepare for Natural Hazards.

This is the single most informative, practical, and productive publication available on disaster preparation as it addresses directly the hazards specific to Hawaii.

I am personally engaged in seeing that anyone in my community of over 220 families who might not be able to readily access the information digitally can have this important reference source available to them. The University of Hawaii Sea Grant program has been very helpful in this regard.

Thank you.

Aloha.

Alice Saul  
Kuapa Isle, Hawaii Kai  
Honolulu

**HB-2302-HD-1**

Submitted on: 3/15/2022 8:18:05 PM

Testimony for HRE on 3/17/2022 3:05:00 PM

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

Comments:

I, Rodney Boucher, support this bill. In fact I have benifitted from the Homeowners Handbook in protecting my home from high winds and lowered my Home Insurance as well. Point of Disclosure is that I am a Community Preparedness volunteer Instructor and have used the Handbook while instructing and distributed multiple cases of the Handbook to various Veteran Service Organizations and community groups.

Mahalo and I am avaiable to provide further information as needed.