



UNIVERSITY OF HAWAII SYSTEM

‘ŌNAEHANA KULANUI O HAWAII

Legislative Testimony

Hō'ike Mana'o I Mua O Ka 'Aha'ōlelo

Testimony Presented Before the
Senate Committee of Higher Education
Tuesday, February 6, 2024 at 3:00 p.m.

By

Brennon Morioka, Dean
College of Engineering

And

Michael Bruno, Provost
University of Hawai'i at Mānoa

SB 2502 – RELATING TO THE GENERATION OF WILDFIRE SUSCEPTIBILITY MAPS FOR HAWAII

Chair Kim, Vice Chair Kidani, and members of the Higher Education Committee:

Thank you for the opportunity to provide testimony in support of SB 2502 provided its adoption does not replace or adversely impact priorities as indicated in our Board of Regents Approved Budget. This measure establishes and appropriates funds for the University of Hawai'i to develop wildfire susceptibility and vulnerability maps for the State of Hawai'i.

These maps 1) help identify areas that are more susceptible to wildfire hazard, 2) allow decision-makers to prioritize high-risk areas for targeted risk reduction strategies, and 3) assist in the development of adaptation policies that lessen the disastrous impacts of future wildfires. Decision-makers can use wildfire vulnerability maps to guide zoning regulations to reduce the impact of wildfires on communities. Moreover, authorities will be more informed about policies allowing construction in vulnerable areas and locating essential facilities (e.g., hospitals, schools, and firefighting stations) in areas that are less vulnerable to wildfires.

In collaboration with the National Weather Service, the Hawai'i Department of Land and Natural Resources-Division of Forestry and Wildlife, Hawai'i-Emergency Management Agency, and county fire departments, the results of this project will be used to develop the best mitigation strategies such as ecological forest management (fuel reduction to restore to natural conditions), creation of defensible space (using native and/or fire-resistant vegetation), and development of greenbelts (diverse vegetation including trees, shrubs, grasses and wildflowers, that act as natural buffers to create separation from wildlands) in each county to reduce the impacts of wildfires.

The UH Mānoa (UHM) College of Engineering and UHM Water Resources Research Center's research capabilities, combined with the extensive outreach activities and technical solutions from the UHM College of Tropical Agriculture and Human Resources, will provide the full range of skillsets and research, as well as the climate data necessary to develop this important tool for Hawaii's decision-makers.

Thank you for the opportunity to testify on this measure.



**TESTIMONY OF
THE DEPARTMENT OF THE ATTORNEY GENERAL
KA 'OIHANA O KA LOIO KUHINA
THIRTY-SECOND LEGISLATURE, 2024**

ON THE FOLLOWING MEASURE:

S.B. NO. 2502, RELATING TO THE GENERATION OF WILDFIRE SUSCEPTIBILITY MAPS FOR HAWAII.

BEFORE THE:

SENATE COMMITTEE ON HIGHER EDUCATION

DATE: Tuesday, February 6, 2024 **TIME:** 3:00 p.m.

LOCATION: State Capitol, Room 229 and Videoconference

TESTIFIER(S): Anne E. Lopez, Attorney General, or
Candace J. Park, Deputy Attorney General

Chair Kim and Members of the Committee:

The Department of the Attorney General provides the following comments.

This bill: (1) requires the University of Hawai'i to establish and report on a two-year program to generate web-GIS wildfire susceptibility and vulnerability maps for the State to determine which communities, landscapes, buildings, and infrastructure are most vulnerable to future wildfires; and (2) makes an appropriation for purposes of the Act.

Article X, section 6, of the Hawai'i Constitution gives the Board of Regents of the University of Hawai'i "exclusive jurisdiction over the internal structure, management, and operation of the university." Section 6 further provides: "This section shall not limit the power of the legislature to enact laws of statewide concern. The legislature shall have the exclusive jurisdiction to identify laws of statewide concern." If the Committee decides to pass this bill, we recommend an amendment to add a statement identifying this bill as a law of statewide concern.

Thank you for the opportunity to provide these comments.



TESTIMONY FROM THE DEMOCRATIC PARTY OF HAWAII

SENATE COMMITTEE ON HIGHER EDUCATION

FEBRUARY 6, 2024

SB2502 – RELATING TO THE GENERATION OF WILDFIRE SUSCEPTIBILITY MAPS FOR HAWAII.

POSITION: SUPPORT

The Democratic Party of Hawai'i **supports** SB2502, relating to the generation of wildfire susceptibility maps for Hawai'i. Pursuant to the “Public Safety and Disaster and Emergency Preparedness” section of the Democratic Party of Hawai'i platform, the party supports “policy that protects the people of Hawai'i and their property against natural and man-made disasters,” and “believes that climate change is real, affirms human activity as its primary cause and main driver, and supports emergency preparedness and planning efforts to mitigate its impacts.”

Last year, we witnessed the impact of the climate emergency on our shores. On August 8, 2023, wildfires swept across Maui and killed at least 100 people, making it one of the nation's deadliest natural disasters. The spread of the fires has been attributed to climate change conditions, such as unusually dry landscapes and the confluence of a strong high-pressure system to the north and Hurricane Dora to the south.

The wildfires destroyed over 2,200 structures, including numerous residential buildings, historic landmarks, and school facilities. In September

2023, a report from the United States Department of Commerce estimated the total economic damage of the wildfires to be roughly \$5.5 billion. According to a report issued by the University of Hawaii Economic Research Organization on September 22, 2023, the unemployment rate on Maui was expected to soar above 11 percent by the end of 2023 and remain above 4 percent through 2026. A total of 10,448 new claims for unemployment in Maui County were filed in the four weeks following the wildfires, about 9,900 more than the preceding four weeks. Displaced families and workers who lost their jobs are still attempting to recover from the disaster, with a full recovery expected to take many years to achieve.

Accordingly, we must do all we can to prevent tragedies like this from occurring again on our shores, including by investing in this two year program that will generate web-GIS wildfire susceptibility and vulnerability maps for the State of Hawaii to determine which communities, landscapes, buildings, and infrastructure are most vulnerable to future wildfires. The Hawai'i Emergency Management Agency released an updated State Hazard Mitigation Plan last November, in which the state's wildfire risk level soared 74 percent to 6.6 from its previous level of 3.8 in the 2018 draft of the report.

The updated hazard mitigation plan contains statistics on how many people by county are at risk from wildfire hazards. For Honolulu, 427,293 people could potentially be affected by wildfires, which was listed as the highest risk with a risk factor of 5.7. Maui County also has wildfires as its highest emergency risk with a score of 5.8 and 81,424 people at risk. On Kaua'i, wildfires carry a 5.6 risk level and threaten 27,604 people. Hawai'i Island has a wildfire risk score of 4.6 and 32,080 people at risk.

Wildfires are now designated as the top hazard in the state according to the updated HIEMA report. It is incumbent upon policymakers to respond with urgency to keep our communities safe.

Mahalo nui loa,

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SB-2502

Submitted on: 2/4/2024 12:46:15 PM

Testimony for HRE on 2/6/2024 3:00:00 PM

Submitted By	Organization	Testifier Position	Testify
L Toriki	Individual	Oppose	Written Testimony Only

Comments:

I oppose this bill.

Why is the UH being used for this? Shouldn't we have professional fire experts looking into this?

Once these "fire hazard zones" are established, what will happen to everyone's insurance rates within these supposed "fire zones"? How will this information be used to protect individual owners, renters or business within these zones????

Just like with the rush to "fix" fire safety within condominiums, all it did for condominium owners was raise their HOA fees and their insurance premiums. The cost for repairs are too exhorbitant and is some cases, not realistic, for condo owners to repair the older buildings so nothing was accomplished except to raise insurance premiums and add to the already high cost of living in this State. The only benefit is for the State and HOAs as this would now cover their liabilities, but it adds no protection for land owners, business owners, homeowners, condominium owners or renters.

SB-2502

Submitted on: 2/4/2024 1:16:15 PM

Testimony for HRE on 2/6/2024 3:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Tamara Paltin	Individual	Support	Written Testimony Only

Comments:

I am in strong support of SB2502. I am a councilmember of the County of Maui residing in West Maui. I took office in 2019 on the heels of a wildfire that nearly burnt down our town and fast forward to today where majority of our Lahaina town burnt down 8/8/23 and in between, there was a major wildfire on election night in 2021. Despite these many fires in the past five years alone, we never imagined such total devastation would be a reality, our firefighters whom I believe are among the best in the state had always pulled through and this devastation is no reflection on their heroic efforts but rather an indication that things need to change and communities need to be fully aware of the potential for devastation. In the response I have heard from many other communities that face similar challenges that our town had faced with lack of evacuation routes and dry grasses, etc. If we can prevent this from happening to another community this will be well worth the effort.

Mahalo for your commitment to the resilience of our communities,

Tamara

Testimony by Dr. Clay Trauernicht IN SUPPORT of SB 2502, Relating to Wildfires

For the hearing on February 6th, 2024, Conference Room 229

To Senator Donna Mercado Kim, Chair of the Committee on Higher Education:

I am submitting testimony in support of SB 2502 Relating to the Generation of Wildfire Susceptibility Maps for Hawai'i. I have been working at the University of Hawai'i at Mānoa in the field of wildfire science and management since 2013, however, I am submitting this testimony as an individual and not as an official University of Hawai'i (UH) spokesperson.

Determining “wildfire susceptibility” requires two components: 1) using key environmental factors to determine wildfire risk across the landscape and 2) assessing the vulnerability or exposure of valued resources in the built and natural environments relative to that risk. UH Researchers, including myself, have made progress in assembling wildfire history and using these records alongside other UH data products such as the rainfall and temperature maps developed by Dr. Tom Giambelluca to develop preliminary assessments of wildfire risk for the Hawaiian Islands. This work demonstrates that UH has the expertise to develop and improve wildfire risk maps. However, this bill is required to further develop fundamental components of wildfire risk assessment, namely hazardous vegetation and key weather variables including wind and relative humidity that, as we saw in the August 2023 fires on Maui and Hawaii Island, are key drivers of fires on Hawai'i. Most importantly, these funds will support the development and compilation of data on so-called “values at risk,” which include all the resources in the built and natural environment that need protection, such as homes, schools, hospitals, municipal infrastructure, fire-sensitive ecosystems, croplands, etc. Assessing wildfire risk relative to these assets is necessary to determine our vulnerability to fire impacts and prioritize where risk reduction actions are most needed.

One advantage that we have regarding wildfire risk is that we have identified the actions that we can take to reduce our vulnerability to wildfire impacts. This will include expanding and creating fuels breaks through grazing, mowing, or replanting nonnative, grassy areas with woody vegetation that is less likely to burn. It will also include re-establishing agriculture land use in fallow areas, which is arguably – if not demonstrably – the most effective way of reducing wildfire risk. However, as my own work has shown, there are approximately 1 million acres, or 25% of the state land area, dominated by high risk vegetation. The work proposed by this bill will help address the key question of where this work is most necessary and where do we begin.

I myself have make public statements that we need to move beyond mapping and modeling (which academic institutions excel at) to implementing fuels management. However I support this bill because the reality is that the scale and scope of Hawaii's wildfire problem requires these fundamental tools to support planning and eventually tracking progress of the risk reduction actions that are already underway. Finally, funding this work through a public

institution will ensure that the general public, landowners, and agencies with limited resources will have equal access to the best available information.

Thank you for considering this testimony and don't hesitate to contact me for further comment.

Sincerely,

A handwritten signature in black ink, appearing to read "Clay Trauernicht". The signature is fluid and cursive, with the first name "Clay" being more prominent and the last name "Trauernicht" following in a similar style.

Clay Trauernicht, PhD
Extension Specialist in Ecosystems and Fire
University of Hawai'i at Mānoa