



# UNIVERSITY OF HAWAII SYSTEM

## ‘ŌNAEHANA KULANUI O HAWAII

### Legislative Testimony

### Hō'ike Mana'o I Mua O Ka 'Aha'ōlelo

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Testimony Presented Before the  
Senate Committee on Higher Education  
Senate Committee on Public Safety and Intergovernmental and Military Affairs  
Thursday, February 8, 2024 at 3:01 p.m.

By  
Brennon Morioka, Dean  
College of Engineering  
And  
Michael Bruno, Provost  
University of Hawai'i at Mānoa

#### SB 2284 – RELATING TO A WILDFIRE FORECAST SYSTEM FOR HAWAII

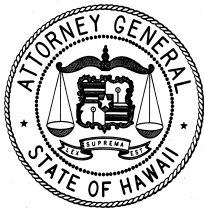
Chairs Kim and Wakai, Vice Chairs Kidani and Elefante, and members of the Committees:

Thank you for the opportunity to provide testimony in support of Senate Bill 2284, 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 a wildfire forecast system for the State of Hawai'i. The system will assist in forecasting potential wildfire incidents across the State of Hawai'i in order to enhance public safety, preparedness, and risk mitigation.

This early detection system will allow authorities to issue timely warnings to enhance the preparedness of first responders and enable the broader community to take proactive measures, such as evacuation planning and home risk mitigation. By providing timely information, these forecasts can help reduce the total area burned and mitigate the overall impacts of wildfire through rapid response and suppression efforts. By better anticipating potential wildfire locations and intensities, the forecast system assists emergency responders to allocate resources more efficiently. This includes positioning of firefighting teams, equipment, and helicopters in strategic locations based on the forecasted fire behavior. The rapid response leads to better control of the fire, reducing its spread and resultant damage. Finally, in collaboration with the National Weather Service, Department of Land and Natural Resources-Division of Forestry and Wildlife, Hawai'i-Emergency Management Agency, and county fire departments, wildfire risk forecasts from this project will be integrated into the Red Flag Warning to improve the overall preparedness and response capabilities of these agencies.

The UH Mānoa (UHM) College of Engineering's research capabilities in artificial intelligence and the Hawai'i Climate Data Portal development by the UHM Water Resources Research Center, 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 Hawai'i'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**

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**ON THE FOLLOWING MEASURE:**

S.B. NO. 2284, RELATING TO A WILDFIRE FORECAST SYSTEM FOR HAWAII.

**BEFORE THE:**

SENATE COMMITTEES ON HIGHER EDUCATION AND ON PUBLIC SAFETY AND INTERGOVERNMENTAL AND MILITARY AFFAIRS

**DATE:** Thursday, February 8, 2024      **TIME:** 3:01 p.m.

**LOCATION:** State Capitol, Room 229 and Videoconference

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

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Chairs Kim and Wakai and Members of the Committees

The Department of the Attorney General provides the following comments.

This bill: (1) requires the University of Hawaii to establish and report on a two-year program to develop a wildfire forecast system for the State using artificial intelligence approaches; 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 that adds 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 8, 2024

**SB2284 – RELATING TO A WILDFIRE FORECAST SYSTEM FOR HAWAII.**

**POSITION: SUPPORT**

The Democratic Party of Hawai'i **supports** SB2284, relating to a wildfire forecast system 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 Hawai'i 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 wildfire forecast system for the using artificial intelligence approaches. The system will forecast the risk of wildfire statewide to enhance public safety, preparedness, and risk mitigation, including improving the preparedness of firefighters and enabling residents to take proactive fire mitigation measures for their homes and plan for evacuations.**

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,

**Kris Coffield**

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**MAUI**  
CHAMBER OF COMMERCE  
VOICE OF BUSINESS

**HEARING BEFORE THE SENATE COMMITTEES ON  
HIGHER EDUCATION and  
PUBLIC SAFETY AND INTERGOVERNMENTAL AND MILITARY AFFAIRS  
HAWAII STATE CAPITOL, SENATE CONFERENCE ROOM 229  
Thursday, February 8, 2024 AT 3:01 P.M.**

To The Honorable Senator Donna Mercado Kim, Chair  
The Honorable Senator Michelle N. Kidani, Vice Chair  
Members of the Committee on Higher Education  
To The Honorable Senator Glenn Wakai, Chair  
The Honorable Brandon J.C. Elefante, Vice Chair  
Members of the Committee on Public Safety and Intergovernmental and Military Affairs

**COMMENTS on SB2284 RELATING TO A WILDFIRE FORECAST SYSTEM FOR HAWAII**

The Maui Chamber of Commerce would like to **COMMENT on SB2284** which establishes a 2-year program at the University of Hawaii to develop a wildfire forecast system for the State using artificial intelligence, appropriates moneys, and declares that the appropriation exceeds the state general fund expenditure ceiling for 2024-2025.

The Chamber supports the idea of using leading technologies to help us forecast environmental shifts and predicting and providing advance warning on disasters. Modeling already exists for disasters like hurricanes and we feel wildfire modeling is appropriate and would like to see where this fits in a comprehensive wildfire preparedness plan.

We would like to suggest that this effort and the effort in SB2502 (relating to the generation of wildfire susceptibility maps for Hawaii) should be combined.

Mahalo for the opportunity to offer **COMMENTS on SB2284**.

Sincerely,

Pamela Tumpap  
President

To advance and promote a healthy economic environment for business, advocating for a responsive government and quality education, while preserving Maui's unique community characteristics.