



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
Senate Committee on Higher Education and the Arts
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by
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SB 2473 – RELATING TO AIR QUALITY

Chair Taniguchi and members of the Higher Education and the Arts committee:

The University of Hawai'i at Mānoa School of Ocean and Earth, Science and Technology (SOEST) supports the intent of SB 2473 provided that its passage does not replace or adversely impact priorities as indicated in the University's Board of Regents Approved Executive Biennium Budget. This legislation appropriates funds for a dispersion-modeling center within SOEST in order to improve vog forecasts for the State.

Emissions of sulfur dioxide from Kīlauea, which has been degassing for over 30 years, are more than ten times greater than the dirtiest coal-fire power plant currently operating in the USA. The pollution plume represents a significant health hazard to the people of Hawai'i and it has been costly for Hawaiian agricultural interests. During vog episodes, hospitals report substantially increased numbers of patients suffering of respiratory ailments, that are consistent with a wide-range of respiratory symptoms linked to volcanic emissions. In addition, GPS and tilt meter data show that Mauna Loa is inflating and past eruption history suggests that Mauna Loa is overdue for an eruption.

Air quality forecasts for the State of Hawai'i are unavailable for volcanic emissions. To fill the void, scientists at the University at Hawai'i at Mānoa have been collaborating with stakeholders in Hawai'i to develop a custom dispersion model for volcanic emission in Hawai'i. The resulting Vog Model (short for volcanic smog) has been running operationally since 2010 over Hawai'i. Vog Model forecasts are run twice daily out to 60 hours in the future and are successful in simulating the extent of the plume and its downwind trajectory. For people in Hawai'i who suffer from allergies, emphysema, or asthma, having a vog model that forecasts the position of the plume, helps them to plan their activities to minimize their exposure. In addition the dispersion modeling center can play an important role in educating the public how best to mitigate the effects of vog.

SB 2473 provides funding support to SOEST to continue our efforts to provide and improve state-of-the-art dispersion modeling to Hawai'i stakeholders statewide that increases community resilience to volcanic emission hazards. The University of Hawai'i through SOEST is well positioned to carry this out and has demonstrated success through its Volcanic Measurement and Prediction program (see website link below).

Thank you for the opportunity to testify on this measure.

<http://weather.hawaii.edu/vmap/index.cgi>