

RES22-239
Testimony

MISC. COMM. 457

BUDGET

BUDGET Meeting

Meeting Date: Oct 19, 2022 @ 09:00 AM

Support: 2

Oppose: 0

I wish to comment: 0

Name: Camile Cleveland	Email: policy@oahu.surfrider.org	Zip: 96816
Representing: Surfrider Foundation O'ahu Chapter	Position: Support	Submitted: Oct 18, 2022 @ 07:31 PM
Name: Dr. Chip Fletcher	Email: fletcher@soest.hawaii.edu	Zip: 96734
Representing: Climate Resilience Collaborative	Position: Support	Submitted: Oct 18, 2022 @ 08:10 PM



10/19/2022

Committee on Budget
City and County of Honolulu
Honolulu, Hawai'i 96813

Aloha Chair Say, Vice Chair Cordero, and Members of the Committee on Budget,

Position: Support Resolution 22-239.

The Surfrider Foundation is a national nonprofit organization dedicated to the protection and enjoyment of our ocean, waves, and beaches. Surfrider maintains a network of over 150 chapters and academic clubs nationwide, including 4 chapters in the Hawaiian Islands. The Surfrider Foundation focuses on many aspects of the environment such as coastal protection, plastic pollution, and water quality.

I am testifying in strong support of Resolution 22-239 urging the state legislature to appropriate funds "to enable the Hawai'i State Climate Change Mitigation and Adaptation Commission, in collaboration with the State of Hawai'i Office of Planning and Sustainable Development's Coastal Zone Management Program, to conduct certain activities to address sea level rise impacts."

The coastlines of Hawai'i are facing severe chronic erosion that is being exacerbated by climate change and sea level rise (SLR). 60 percent of the beaches on O'ahu face chronic erosion, and over five miles of O'ahu beaches have already been lost to erosion.¹ Further, O'ahu faces unique challenges as Honolulu has the highest potential in the state for SLR-induced economic losses,² and the homes and infrastructure on the island are already starting to collapse due to shoreline erosion and SLR.³ Shoreline erosion and SLR pose a complicated threat to the islands that require complex solutions to solve – appropriating funding is a critical part of that solution, as it will allow the Climate Change Mitigation and Adaptation Commission and Hawai'i Office of Planning and Sustainable Development to address impacts and hazards of SLR.

Thank you for your consideration of this testimony in support of Resolution 22-239 submitted on the behalf of the Surfrider Foundation O'ahu Chapter and all of our members who live on the island and visit to enjoy the many coastal recreational opportunities offered by all of the island's coastlines.

Sincerely,

Camile Cleveland
Volunteer Policy Coordinator
Surfrider Foundation, O'ahu Chapter

¹ Fletcher, C.H., Romine, B.M., Genz, A.S., Barbee, M.M., Dyer, Matthew, Anderson, T.R., Lim, S.C., Vitousek, Sean, Bochicchio, Christopher, and Richmond, B.M., 2012, National assessment of shoreline change: Historical shoreline change in the Hawaiian Islands: U.S. Geological Survey Open-File Report 2011–1051, 55 p. (Also available at <https://pubs.usgs.gov/of/2011/1051/>.)

² Hawai'i Climate Change Mitigation and Adaptation Commission. Hawai'i Sea Level Rise Vulnerability and Adaptation Report. Prepared by Tetra Tech, Inc. and the State of Hawai'i Department of Land and Natural Resources, Office of Conservation and Coastal Lands, under the State of Hawai'i Department of Land and Natural (2017).

³ <https://www.hawaiinewsnow.com/2022/02/28/no-injuries-after-house-collapses-oahus-north-shore/>



Dr. Charles “Chip” Fletcher

Director, University of Hawai‘i at Mānoa Climate Resilience Collaborative
Interim Dean, School of Ocean and Earth Science and Technology at the
University of Hawai‘i at Mānoa
fletcher@soest.hawaii.edu

October 19, 2022

Aloha, Chair Say and Vice Chair Cordero,

As the former Chair of the Honolulu Climate Change Commission, I am writing to voice my **strong support of Resolution 22-239** which is being heard by your Committee on Budget of the Honolulu City Council on October 19, 2022. Resolution 22-239 would urge the Hawai‘i State Legislature to appropriate funding to enable the Hawai‘i State Climate Change Mitigation and Adaptation Commission, in collaboration with the State of Hawai‘i Office of Planning and Sustainable Development’s Coastal Zone Management Program, to conduct certain activities to address sea level rise impacts.

I write as Interim Dean of the School of Ocean and Earth Science and Technology at the University of Hawai‘i at Mānoa and as the Director of the Climate Resilience Collaborative (CRC), a research program at the University of Hawai‘i at Mānoa.¹ CRC is an affiliation of scientists, architects, attorneys, economists, planners, and undergraduate and graduate students spread across campus working on challenges related to climate change. Our work is focused on building community resiliency to climate change impacts by maximizing the effectiveness of predictive climate science and advancing our ability to dynamically respond to climate change.

I support Resolution 22-239 because Hawai‘i is already experiencing the significant impacts of climate change and sea level rise including more frequent and intense storms, increasing temperatures combined with decreased trade winds to cool our communities, and nearshore marine and coastal impacts such as coral bleaching and beach loss. Peer-reviewed research has shown that these harmful impacts will continue to get worse and at increasing rates.

Sea level rise alone is an unstoppable reality and without major adjustments to coastal laws and policies, these dangers will increase - slowly at first, as at present, but by the 2030’s sea level rise impacts related to extreme tidal flooding will increase exponentially. The 6th Assessment Report of the Intergovernmental Panel on Climate Change states with high confidence that “[i]n the longer term, sea

¹ I have been a research scientist specializing in coastal processes and beach response to sea level rise for over four decades. In that time, I have published over one hundred peer-reviewed articles and three textbooks on these topics. Further, I have been a key advisor in over 30 master and PhD studies of shoreline processes in Hawai‘i.

level is committed to rise for centuries to millennia due to continuing deep-ocean warming and ice-sheet melt and will remain elevated for thousands of years.”²

Global mean sea level will rise by about 6.5 to 10 feet if warming is limited to 1.5°C, 6.5 to 20 ft if limited to 2°C and 62 to 72 ft with 5°C of warming, and it will continue to rise for centuries to millennia. There is nothing we can do to stop sea level rise. Communities need to understand the problem and governments must develop adaptation policies to adjust to and prepare for the new reality.

Given these significant sea level rise projections, I support Resolution 22-239 because its main purpose is to urge the state to fund critical planning and analysis of Hawai‘i’s vulnerabilities including conducting a thorough inventory of infrastructure at risk to sea level rise, identifying priority areas that will be subject to high rates of sea level rise, designing and proposing sea level rise impacts zone maps, working with state and county agencies to develop sea level rise plans, and making specific recommendations to the Hawai‘i Legislature regarding managed retreat, relocation, or mitigation measures.

I sincerely appreciate the Committee on Budget’s time and effort to hear and consider Resolution 22-239. Please feel free to contact me if you have any questions about the substance of my testimony.

Respectfully,

C. Fletcher

Charles Fletcher

² AR6 WGI SPM p.21 B.5.4.