BILL041(22)
Testimony

MISC. COMM. 336

ZONING AND PLANNING

ZONING AND PLANNING Meeting
Meeting Date: Aug 25, 2022 @ 09:00 AM
Support: 4
Oppose: 0
I wish to comment: 1

Name:	Email:	Zip:
Flora Obayashi	of8@hawaii.edu	96744
Representing:	Position:	Submitted:
Self	Support	Aug 23, 2022 @ 11:34 AM

Testimony:
Aloha Council Chair Waters and councilmembers,
We need this bill in the face of climate change and changing ocean conditions. I am seeing a 3.2 feet SLR sea level rise eroding the shoreline in my Kahaluʻu neighborhood. Some houses are now on the water's edge and will be in the water in this decade. The problem in other Oʻahu coastal areas is far worse as houses fall into the water. We need a greater shoreline setback area to mitigate the impacts of sea level rise.
Mahalo

Name:	Email:	Zip:
Kathleen Pahinui	pahinuik001@hawaii.rr.com	96791
Representing:	Position:	Submitted:
Self	Support	Aug 24, 2022 @ 06:41 AM

Testimony:
Aloha Committee Chair Elefante and Committee Members -

I support Bill 41 Relating to Shoreline Setbacks. The changes are fair and are important for our North Shore community to ensure and maintain the integrity our our shoreline and beaches. The impacts of climate change are real and are being felt these revisions will help protect all of us including homeowners.

I request one change: on page 19, under Section 23-1.14 Enforcement: please add that neighbors and the appropriate neighoborhood board(s) and community associations be notified of any hearings regarding a Notice of Violation of this ordinance.

Mahalo for your time and consideration.

Kathleen M. Pahinui
Waialua Resident

Name:	Email:	Zip:
Chip Fletcher	fletcher@soest.hawaii.edu	96734
Representing:	Position:	Submitted:
Climate Resilience Collaborative	Support	Aug 24, 2022 @ 10:59 AM

Name:	Email:	Zip:
Terence Tang	terence.tang@gmail.com	96707
Representing:	Position:	Submitted:
Self	Support	Aug 24, 2022 @ 01:43 PM

Testimony:
I strongly support Councilmember Andria Tupola's proposed amendment to Bill 10 (2022), CD1: CC-237[2022], which reinstates ALL properties in Ko Olina Fairways and Ko Olina Hillside Villas as legal TVU units. It is reasonable and fair that all properties located with Ko Olina Resort be treated the same.

Name:	Email:	Zip:
Andrea Anixt	andreapeatmoss6@gmail.com	96730
Representing:	Position:	Submitted:
Self	I wish to comment	Aug 24, 2022 @ 06:45 PM

Testimony:
Aloha Council Members
Bill 41's proposed setback changes
From 40' to 130' is of grave concern to our community members. Their property and homes are at stake as their old houses deteriorate and new permits are needed. Will building codes let them build up higher on their old footprint? Are they grandfathered

in?
Retreat from the ocean is scientifically valid; however it is in the Public Interest to harden the only highway from Haleiwa thru Kahalu'u also for the millions of users per year and for emergency vehicles especially isn't it?
Ka'a'awa School is built partially close proximity to the ocean , across the 2 lane highway also. There is a highway -saving hardening project this could also affect...so a larger public interest is affected to be considered.
Our small beach town is paying taxes that will go to save hotels permitted to be built too close to the ocean probably; and much more recently than our houses were built.
What exemptions will the "little guy" get that Kyo-Ya was given?
Careful consideration now is needed.
Mahalo

Dr. Charles "Chip" Fletcher
Director of the Climate Resilience Collaborative
Interim Dean of the School of Ocean and Earth Science and Technology at the University of Hawai'i at Mānoa

fletcher@soest.hawaii.edu

August 25, 2022

Aloha, Chair Elefante and Vice Chair Kia'āina,

I am writing to voice my **strong support of Bill 41 (2022)** which is being heard by your committee, the Honolulu City Council Committee on Zoning and Planning, on August 24, 2022. Bill 41 (2022) would update the Shoreline Setbacks on O'ahu, codified at Revised Ordinances of Honolulu Chapter 23.

Currently, I am the Director of the Climate Resilience Collaborative (CRC), a research program at the University of Hawai'i at Mānoa, formerly called the Coastal Geology Group.[1] CRC is an affiliation of researchers, technicians, modelers, architects, attorneys, economists, planners, and undergraduate and graduate students spread across campus working on challenges related to climate change. Our work is focused on making all communities in Hawai'i more resilient to impacts from climate change by maximizing the effectiveness of predictive climate science and advancing our ability to dynamically respond to climate change.

Every year human communities on our coastline grow increasingly vulnerable to the dangers of wave impacts, coastal erosion, high tide flooding, and storm surge, all of which are exacerbated by sea level rise. Sea level rise 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 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 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]

Over the next 2000 years, 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 over subsequent millennia. There is nothing we can do to stop sea level rise. Communities need to

[1] CRC, formerly known as the Coastal Geology Group, is referenced in the definition of "Hawaii Shoreline Study" and "Hawaii Shoreline Study web map" in this bill. I am also the Interim Dean of the School of Ocean and Earth Science and Technology at the University of Hawai'i at Mānoa. 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.
[2] AR6 WGI SPM p.21 B.5.4.

understand the problem and governments must develop adaptation policies to adjust to and prepare for the new reality.

I support Bill 41 (2022) because it is an important improvement to the City and County of Honolulu's Shoreline Setbacks ordinance because it will generally increase the buffer zone between the rising ocean and Honolulu's coastal communities. This will have the overall effect of increasing the resilience of Honolulu's coastal communities to the impacts and hazards caused by sea level rise.

In addition, I support Bill 41 (2022) because it would update the hardship standard required by a coastal property owner in order to attain a variance from the shoreline setback to artificially fix the shoreline. This update will conform to the amendments made to the Hawai'i Coastal Zone Management Act made by the State Legislature in 2020 which set out a policy of no new hardening on Hawai'i's sandy shorelines. Hardship variances on O'ahu have been used to build seawalls, which have been the most significant contributor to beach loss. Artificial shoreline hardening prevents a beach and natural dune system from accessing its sand reserves in the backshore "that would otherwise be available to resupply the depleted beach."[3] Science has conclusively and repeatedly observed that shoreline hardening causes beach loss because it "disrupts natural processes, accelerates erosion on adjacent lands (known as "flanking"), and limits the natural dynamic behavior of the environment."[4] Further, shoreline hardening on natural Hawaiian beaches "experiencing chronic erosion, ultimately the result of long-term sea level rise, causes beach narrowing and loss [], and flanking triggers more hardening leading to additional beach degradation."[5] As of 2012, "70% of beaches on O'ahu, Maui, and Kaua'i experience an erosional trend" and "shoreline hardening has caused a total of 21.5 km of beach loss statewide."[6] Studies published in 1997[7] documented that historical seawall and revetment construction (coastal armoring) to protect eroding lands had caused the narrowing of 17.3 ± 1.5 km and loss of 10.4 ± 0.9 km of sandy beach over the period 1928 or 1949 to 1995. This is ~24% of the 115.6 ± 9.8 km of originally sandy shoreline of Oahu.

Lastly, I would like to note two things in Bill 41 (2022) that I believe should be changed to align the regulations with the science:

First, Sec. 23-1.4(a)(2) would create a "Sixty feet [shoreline setback] on zoning lots within the Primary Urban Center Development Plan area," which extends from Pearl Harbor all the way around Diamond Head and into Kahala.[8] However, I believe it would be more prudent for your Committee on Zoning and Planning to amend that provision to apply the sixty feet plus 70 times the annual coastal erosion rate formula from Sec. 23-1.4(a)(1) to the Kahala and Diamond Head areas because those areas have a similar development pattern to neighboring portions of East Honolulu and much of the rest of the island (rather than the dense urban development of the PUC). Further, these narrow and low-lying beaches are also very susceptible to sea level rise and coastal erosion, and have experienced strong

---

[3] Hawai'i Dune Manual, University of Hawai'i Sea Grant College Program 11 (2022).
[4] Alisha Summers, Charles H. Fletcher, Daniele Spirandelli et al., *Failure to Protect Beaches Under Slowly Rising Sea Level*, 151 Climatic Change 427, 428 (2018).
[5] *Id.*
[6] *Id.*
[7] Fletcher, C.H., et al. (1997) Beach loss along armored shorelines of Oahu, Hawaiian Islands, Journal of Coastal Research, 13, 1, 209-215. https://www.soest.hawaii.edu/coasts/publications/JCRBeachLoss.pdf
[8] https://www.honolulu.gov/rep/site/ocs/roh/SCP_DP_PrimaryUrbanCenter.pdf.

historical erosion trends. Thus, the science shows that those sandy coastlines should be subject to the historical erosion rate-based setback and the improved safety buffer they provide.

Second, I believe that it would be prudent for your Committee on Zoning and Planning to consider changing the effective date of Bill 41 (2022) from January 1, 2024 to "*upon approval"*. For one thing, Act 16 (2020) was effective upon approval, thus those changes in this measure made to conform with state law should be effected as soon as practicable. Second, time is of the essence, and any delay in updating Honolulu's shoreline setback will only hurt our coastal communities in the long term. Finally, having an effective date so far out may unintentionally lead to an increase in development as coastal property owners will rush to exploit the current shoreline setback before Bill 41 (2022) becomes effective.

I sincerely appreciate this Committee's time and effort to consider and hear this measure. Please feel free to contact me if you have any questions about the substance of my testimony.

Respectfully,

C. Fletcher

Charles Fletcher