



Coalition to Mitigate the Impacts of Sea Level Rise  
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May 30, 2022

Susan Todani, Chairperson  
Chason Ishii, Vice Chairperson  
Hawaii Community Development Authority (HCDA)  
547 Queen Street  
Honolulu Hawaii 96813

**Re: Opposition to Permit #: KAK 22-024; Applicant: Victoria Ward, Limited (local Howard Hughes subsidiary); Tax Map Key: (1) 2-3-001:133. Project Location: 1000 Ala Moana Boulevard, Honolulu, HI 96814 (June 1, HCDA 2022 Presentation Hearing).**

Description: The Applicant is proposing to build a single, 330-unit residential, mixed-use condominium tower (“Project”) located on a 45-foot-high parking podium and ground floor commercial/retail space, located on a 113,705-square-foot lot on the northeast corner of Ala Moana Boulevard and Ward Avenue.

**As a follow-up to our letter of May 23, 2022 in which we requested that HCDA stop pursuing development within the makai (ocean) and mauka (mountain) areas under its jurisdiction that are located within the four-foot sea level rise zone as indicated on the NOAA (National Oceanic and Atmospheric Administration) sea level rise (SLR) map, we are herewith also asking to shelve Permit # KAK 22-024 before you for review.**

Please, again take time to refer to the attached handout from the *Coalition to Mitigate the Impacts of Sea-Level-Rise* (attachment 1), as it provides a much-needed wake-up call for ‘vitality needed actions’ about impending sea level rise due to climate change. An update has been added to indicate the location of the Howard Hughes Ward Village complex located within the NOAA four-foot sea level rise zone and its new KAK 22-024 permit application for another high rise at 1000 Ala Moana Blvd. that lies at the edge of the three-foot sea level rise zone.

So, let us repeat what we have stated previously to HCDA and other agencies as it will affect everyone. Active managed retreat due to sea level rise along Oahu’s coast will need to start within the next 30 years or by about 2050. This will also include or affect the many high-rises that have been built or are still being built, permitted or proposed within the NOAA four-foot sea level rise zone. Such coastal retreat, while unavoidable, is contrary to the present buzz word of “resiliency” used by so many government agencies. It is expected that perhaps up to 15 million people in the U.S. will need to be relocated by 2100, and that our military has contingency plans to assist with such relocation efforts wherever feasible.

While proposals by academic institutions pertaining to “resiliency” such as for Waikiki are perhaps political rays of hope, are they realistic? With global warming now expected to be unstoppable, as it will readily exceed the 1.5° C threshold, we must accept that retreat in most cases is the only meaningful long-term planning option to mitigate major climate change disasters inclusive of accelerated sea level rise.

We are aware of the well-researched coastal zone policies that presently still guide the permitting process. However, these coastal zone policies were initially prepared more than five years ago and were to act as future planning guidelines, as there was still the belief that the looming Climate Change crisis—and with it sea level rise— could still be managed if our country would step up and assume a leadership role in reducing greenhouse gas emissions. But we all must acknowledge now that our country instead took steps backward and that

droughts, food scarcity, unstoppable wildfires, hurricanes, subsidence, and overall unpredictable weather changes are just the precursors of accelerating sea level rise.

Furthermore, does the recently enacted “Buyer Beware Law” not actually protect the Real Estate industry and condone further high-rise development in high-risk flood hazard zones? The law requires the Real Estate industry to disclose to buyers if land lies in areas susceptible to impacts from a projected 3.2-foot sea level increase as indicated on the *Hawaii 2017 Sea Level Rise and Vulnerability and Adaptation Report and its Sea Level Rise Viewer*. Have not these excellent documents been largely ignored in the development of the Howard Hughes Ward Village complex over the last five years? While the 2017 report estimated just 12.9 billion dollars in structural losses due to sea level rise, these figures may increase by quite a few billion dollars and by more than the estimated 13,300 residents displaced if the more recent construction at the Howard Hughes Ward Village complex is taken into account.

Dr. C.H. Fletcher of the School of Ocean and Earth Science and Technology at UH, in his May 6, 2022 interview as published in the *Honolulu Star Advertiser* (attachment 2), provides factual answers to our questions. He stated that global sea level rise has become irreversible even if we stop greenhouse emissions today, and that moving away from shorelines is irreversible. He further states that sea level rise is such a game change that it is probably worth a total rethink of the local, state, and national coastal zone policies.

He further points out that groundwater inundation and storm drain backflow are often ignored (in the permitting process?) but are crucial to consider, as many of our coastal areas are going to become wetlands as the water table rises in parallel to sea level rise. In certain urban areas, as already pointed out in much of the research conducted by UH scientists (and also listed on our CMISLR website), storm drain systems designed to carry away runoff using gravity, instead act as sources of salt water flooding/infiltration during high tides.

As to the question of reducing carbon emissions in the hope of warding off serious coastal damage, Dr. Fletcher clearly states that this is too late. For this to happen, greenhouse gas emissions would need to peak by 2025, decline by 40-50% by the end of the decade, and reach net zero by 2050. However, instead of declining and in step with global energy policies, greenhouse gas emissions are projected to increase by 7-15% by the end of the decade.


As to hope for solutions, Dr. Fletcher points out that hope is (and has been) our biggest enemy, but that one must be optimistic, and optimism must be imbedded in action. While the five immediate action items he recommended to ward off global climate disaster is largely beyond the control of HCDA except for perhaps requiring zero emissions by 2030 for new structures (and also stopping the permitting process in the 4-foot NOAA sea level rise zone), further immediate action can and must be taken in this direction by everyone such as supporting an agricultural revolution with sustainable food production. His final comments “Every part of society must be experience transformational change. Nobody, no sector can sit this out.” But do we really care? Most of us have shown with our actions that we are either ignorant or are apparently not willing to change our present “cocoon” life styles and are willing to kick the problems we created “down the road” for future generations to sort them out and suffer.

As we understand, HCDA also reviews the NOAA SLR Viewer which shows projected SLR up to 6.0 feet by the year 2100. Could this really happen? Yes, it could! Specifically, NOAA’s 2022 Sea Level Rise Technical Report, representing the first update since 2017, clearly states: “*Failing to curb future emissions could cause an additional 1.5-6 feet (0.5-1.8 meters) of rise for a total of 3.5-7 feet (1.1-2.1 meters) by the end of the century. If so, Honolulu, Hawaii, the US, and much of the world as we know it, would cease to function.*” Add to this the monthly “nuisance” new moon and full moon high tides, the predictable summer and winter King Tides and the occasional Kona storm flood surges that could add at least another 7-8 inches of sea level rise to a King Tide’s predicted sea level rise as was witnessed on December 5, 2021. Where do we go from here?

In light of these uncertainties—and setting hope aside—we must not only rethink local, state, and national coastal zone policies as stated by Dr. Fletcher, but must almost immediately implement “boots-on-the-ground” changes that reflect these realities. This must also include truly affordable housing and food self-sufficiency in these planning processes, or there will be little left for future generations.

Honolulu City and County staff responsible for infrastructure maintenance and improvement have stated that adequate infrastructure support cannot be provided thirty years from now for development within the NOAA four-foot sea level rise zone. While out-of-state investment fuels such construction and provides well-paying jobs, it has not created ‘vitally needed affordable housing’ while being largely responsible for the ever-accelerating Real Estate prices and creation of further liability to the State when “Managed Retreat” becomes inevitable. **GIVEN JUST THESE FACTS, why are permits still being issued for construction everywhere, inclusive of high-rises, as if climate change and sea level rise were a myth?**

For the future of our country, Hawaii, and our children and grandchildren, we are therefore requesting that all public agencies work together in ceasing permitting of new construction in the NOAA four-foot sea level rise zone now, and planning efforts instead are focused on more effective infrastructure maintenance and improvement, truly affordable housing, accelerated replacement of cesspools, as well as effectively increasing food self-sufficiency.

  
Klaus Radtke, Ph.D.  
Environmental Scientist  
Coalition Member



QUESTIONS WITH . . .

# CHIP FLETCHER

The UH scientist explains the best strategies for handling rising seas and threats to coastal communities



RUTH FLETCHER

**1** How would “managed retreat” — moving structures away from the shoreline — work as state policy?

Recent reports from the Intergovernmental Panel on Climate Change remind us that global sea level rise is irreversible, even if we stop greenhouse gas emissions today. Moving away from shorelines is inevitable. But it is a complicated policy question that involves balancing overall public good, private rights, and the particular factors at play along the state’s dynamic coastline.

We have already seen managed retreat in Hawaii. After the repeated tsunamis of 1946 and 1960, folks in Hilo came to better understand the threat of tsunamis and changed their decisions about what to build and where. They essentially mitigated the effects of future tsunamis in their community by relocating away from the coast.

When it comes to sea level rise, the University of Hawaii has a wealth of research that can help guide us into the future. The truth is, sea level rise is such a game-changer that it is probably worth a total rethink of local, state, and national coastal zone policies.

Federal support coupled with state and local government action could put funds toward managed retreat and make a pathway for those dollars to be spent on adaptations to sea level rise. The state and county also could use programs and money to incentivize coastal property owners to voluntarily retreat from the shoreline.

Ideally, we would work with a bundle of economic and policy tools, and they all should emphasize community engagement and public outreach to the affected property owners, but also to the broader community of folks who use and benefit from our public trust beaches.

**2** Which coastal areas risk the greatest loss from sea encroachment?

Certainly areas that are chronically eroding, and our research provides a great roadmap on this question. We have a number of online tools and reports that identify these areas and I would combine this analysis with our projections of future erosion as well. The best tools for Hawaii include the NOAA SLR Viewer, NOAA Flood Exposure Mapper, and the Hawaii SLR Viewer.

Groundwater inundation and storm drain backflow are often ignored because they are less visible, but are crucial to consider. In short, many of

## THE BIO FILE

- >> **Title:** Interim dean, School of Ocean and Earth Science and Technology, University of Hawaii-Manoa.
- >> **Professional:** Joined UH-Manoa in 1991, served as professor, department chair, associate dean, interim dean.
- >> **Community:** Formerly on Kailua Neighborhood Board, Legacy Land Conservation Commission, currently chair of the Honolulu Climate Change Commission.
- >> **Family:** Wife Ruth, president of St. Andrews Schools; three adult children, two sons-in-law, two grandchildren.
- >> **One more thing:** Climate change threatens Hawaii supply lines. To thrive, we need to unify the community and accelerate local food production, electricity and fuel independence, and climate-resilient development.

our coastal areas are going to become wetlands as the water table rises in parallel with sea level rise. You can see this in certain urban areas where the storm drain system, designed to carry away runoff using gravity, is instead acting as a source of saltwater flooding during high tide.

**3** What is the state’s responsibility in responding to private property collapse, as has happened recently on the North Shore?

Under the public trust doctrine the state has a legal responsibility to maintain beaches for citizens of the state and its future generations. Key to this is the recognition that sea level rise is not a threat to beaches because under natural conditions, they respond by migrating landward, driven by a combination of rising water and wave energy.

However, seawalls, revetments, sandbags and other measures prevent this natural response and eventually destroy the beach. Recent amendments to state law preventing shoreline hardening on sandy beaches have sent a strong message that the government intends to conserve Hawaii’s beaches.

Beyond that, the state has no responsibility to protect private property from coastal erosion, but should

be using its power and funds to incentivize coastal property owners to move away from the shoreline. Proactive regulation and enforcement of our existing shoreline regulatory regime are necessary to prevent situations like the one at Rocky Point.

**4** Is it too late for carbon emission reduction to ward off serious coastal damage?

Yes, it is obviously too late. Look at the threatened homes on Sunset Beach. These homeowners and the state and county would describe this as “serious coastal damage.”

Now we need to take action to limit this problem. The most recent IPCC Report tells us that a planetary emergency exists. Greenhouse gas emissions need to peak by 2025, decline 40-50% by the end of the decade, and reach net zero by mid-century. However, instead of declining, on track with global energy policies, emissions are projected to increase 7-15% by the end of the decade.

With continued greenhouse gas emissions we risk pushing large-scale global systems such as permafrost, Arctic sea ice, ocean circulation, tropical and boreal forests, coral reefs, marine ecosystems and massive ice sheets past the point of no return.

**5** Are there any advances or innovations that give you hope for solutions?

In some aspects, hope is our biggest enemy. We aren’t going to manage this problem with hope. But giving up, or taking a pessimistic approach, won’t help either. We must remain optimistic, and optimism is embedded in action.

Here are just five:

1. Building a zero-emissions electric grid.
2. Decommissioning existing fossil-fuel infrastructure and keeping unused oil, gas and coal reserves in the ground.
3. Transportation must become emissions-free.
4. Buildings must be zero emissions. By 2030, one-third to half of all buildings need energy and efficiency retrofits.
5. An agriculture revolution must take place. Producing beef generates 100 times more greenhouse gas than plant-based food, and eating beef is unhealthy. Sustainable food production includes steps to increase soil carbon storage.

Every part of society must experience transformational change – no body, no sector, can sit this one out.

Asked by Vicki Viotti, Star-Advertiser