

CLIMATE CHANGE COMMISSION
CITY AND COUNTY OF HONOLULU

925 DILLINGHAM BOULEVARD, SUITE 257 • HONOLULU, HAWAII 96817
PHONE: (808) 768-2277 • EMAIL: ccc@honolulu.gov • INTERNET: www.resilientoahu.org



KIRK CALDWELL
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MAKENA COFFMAN, PH.D., CHAIR
CHARLES FLETCHER, PH.D., VICE CHAIR
ROSIE ALEGADO, PH.D.
VICTORIA KEENER, PH.D.
BETTINA MEHNERT, FAIA, LEED AP

Climate Change Commission
Thursday, October 24, 2019
DLNR Board Room, Kalanimoku Building
1151 Punchbowl Street
Honolulu, Hawai'i 96813
Meeting Minutes

Members present: Rosie Alegado, Makena Coffman, Victoria Keener, and Bettina Mehnert.

Members Absent: Charles Fletcher.

Public: Deputy Director Justin Gruenstein, Uyen Vong, Hayley Cook, and Christine Pereira (Office of Climate Change, Sustainability and Resiliency); Courtney Sue-Ako (Corporation Counsel); Svea Breckberg; Teresa Dawson; Dane Martin; Keoni Wasano; Alvin Au; Kiana Otsuka; Nicole Cernohorsky; Taylor Ellis; Cari Ishida; Alec Macleod; Mike Plowman; Susan Mukai; Dean Nakano; Nancy McPherson; Anu Hittle; Harvey King; Melissa White; Abbey Seitz; Tenaya Jackman; Zoe Sims.

Call to order: Chair Makena Coffman called the meeting to order at 2:01 p.m.

Roll Call: Four out of five commissioners were present. Quorum was established.

Approval of the Meeting Minutes of May 28, 2019 and July 2, 2019: The minutes of May 28, 2019 were unavailable. Agenda item skipped until next meeting. The minutes of July 2, 2019 were adopted (**AYE:** Alegado, Coffman, Keener, Mehnert; **NAY:** None; **ABSTAIN:** None.)

Report on the Activities of the Office of Climate Change, Sustainability and Resiliency (CCSR):

Executive Deputy Director Justin Gruenstein presented the following report:

- The City Council formally adopted Resolution 19-233, relating to the City Council adopting *Ola: Resilience Strategy*. The passage of Resolution 19-233 makes the Resilience Strategy an official city document, supported by both Mayor Caldwell and the City Council. The hope is that all other departments will follow the guidelines and priorities identified in this strategy.
- Electric codes have been adopted and signed into law. That was first of many updates to general building codes.
- Bill 25 is still in committee. It is expected that it will be heard at the Committee of Zoning, Planning and Housing on November 14. CCSR is trying to work with all stakeholders to find as much common ground as they can.
- Bill 50 has been sent down to Council and it was on the Committee hearing just now. It is expected that it will be moved along in the process.
- CCSR has a new staff in the office: Laurien "Lala" Nuss. CCSR will have additional focus around equity issues. Nuss, Stanbro and Gruenstein will be departing tomorrow for the USDN annual meeting in Detroit. The theme of the meeting is community equity. CCSR is thrilled to have Lala on board for that meeting.

Questions and Comments that Followed:

- Coffman inquired about the role of the Climate Change Commission in the implementation of the

Resilience Strategy process. Gruenstein responded that he encourages the Commission to take a deep dive and look at the actions that are under the purview of the Commission or of personal interest.

Discussion and Possible Action on Shoreline Management on O'ahu – Sam Lemmo from the Department of Land and Natural Resources (DLNR):

- Lemmo introduced himself as the administrator for Office of Conservation and Coastal Lands (OCCL) in Department of Land and Natural Resources (DLNR). His agency is analogous to City and County of Honolulu Department of Permitting and Planning (DPP). Counties have regulation of land seaward of the shoreline. However, because of the concern over the state of beaches and public access to beaches, DLNR is keenly interested in what the counties are doing because county regulations affect beaches and public access to beaches. OCCL has been at the table for many years and OCCL has great relationships with planning departments on other islands.
- OCCL is part of the State Climate Commission. Anu Hittle is the Climate Coordinator. Like the City Commission, the State Commission is trying to address issues of Greenhouse Gas (GHGs) emission reductions and adaptation. The primary focus on the mitigation efforts is related to transformation of public fleet from carbon-based sources to electrification. On the adaptation side, OCCL is very involved in the sea level rise (SLR) discussion. They basically wrote the 2017 report which is now forming the basis of some guidelines or even policies for some of the county agencies in terms of utilizing projections for sea level rise throughout the century. OCCL has active discussions with all the counties and the sea level rise exposure area, which is a hazard overlay.
- O'ahu is the most densely populated of the four major islands. The flat coastal plains were subdivided and developed over the 20th century. There is still a lot of development even though it is known that these areas will be vulnerable in the future. The problem is that a lot of the development occurred without knowledge of dynamic shoreline process. There was certainly no recognition of SLR occurring back then. Now that sea level has risen at least 8 inches, the coastal areas are seriously in jeopardy. The North Shore is almost fully armored with soft shoreline protection. The Waianae Coast is now experiencing serious erosion. The islands are mixed of soft porous shorelines and hardy, old lava forms. There will be erosion in the areas where it is sandy or alluvial. Have a lot of armoring around the island. The east side has Kamehameha highway is basically a giant seawall. OCCL has hired a Gordon Brown Fellow, Katia Chikasuye, and is working with a team which includes Brad Romine of UH Sea Grant, Dr. Fletcher, Lemmo and others. The idea is to SLR-XA and show how to utilize it more effectively so it can help the counties. The timeline for this project is approximately one year.
- Lemmo stated that they threw everything into a combined vulnerability zone, however he thinks that each erosion type needs to be dealt with in its own perspective. Lemmo stated that it makes sense to address each particular hazard in its own compartment. In doing that, that will enable them to look at it from a regulatory perspective. For high wave over wash, if near the shoreline with annual inundation, will actually have more than annual inundation, it will be very deep and there will be a lot of velocity. However as one moves inland, then the situation is not so dire and there is more time, so one can think about mitigation measures which can be set in place via discussions via guidance.
- Lemmo added they are really early on this process, but foresees something as an addendum to the SLR report and bring back to the Commission and ask to rule on it. They will include the counties to the greatest extent possible in development. Some counties are already moving forward to address this. Maui and Kauai are looking to adopt erosion level for regulatory purposes.
- Lemmo says that in terms of setbacks, there are setbacks in the conservation zone, which is more prevalent on the neighbor islands. On O'ahu, there is a variable erosion rate 40 feet plus 70 times the erosion rate, which is the same as Kauai.

Questions and Comments that Followed:

- Mehnert asked Lemmo if they look at different time frames, such as a shorter term scenario and then in 10, 50, 100 years. Lemmo replied that the timing of hazard and timing of planning efforts is an active discussion. They're integrating all of their SLR planning with their drainage and flood control projects. Lemmo added that it is hard to plan in advance because planners need to take

into other effects of climate change, besides sea level rise.

- Mehnert commented that planning is a major component to climate change solutions. She attended a resiliency workshop on the east coast, where they talked about Miami and debated if it made sense for people to continue living in Miami. Lemmo responded that while in general, people in red states do not discuss climate change, but they want to have a conversation about flooding means that they know they have to do something about the changing environment.
- Keener asked for the history of the origin of the state setback variable rate. Lemmo responded that it was created in 2011, however shoreline setbacks were not mentioned in the conservation rules. Permits for conservation land were discretionary. Keener asked what the drive was for establishing it. Lemmo commented that the movement started when people began to notice beach coastal erosion and loss. Keener asked if the guidance variable rate is in need of being updated to which Lemmo replied that it is being updated. Lemmo also commented that when the SLR-EX guidance is released, he would like to use that guidance in the next rule revision because it is necessary to move beyond using erosion rate as a mechanism for coastal hazards. There are other coastal hazards that coastal property owners will face.
- Coffman asked what the important criteria is when considering a red line. Lemmo commented that Maui and Kauai counties currently have variable rate based erosion setbacks. Maui's setback is 50 times the erosion rate and Kauai's setback is 70 times the erosion rate. These rates were established by evaluating past shorelines, based on a time cast. The actual timeline is not as important as the planning for sea level rise and coastal erosion.
- Coffman asked how the lines match up in comparison to the red lines and conservation lands. Lemmo commented that in some cases, it could exceed the 70 times erosion rate.
- Coffman asked what the important criteria is regarding the guidance for shoreline setbacks. Lemmo responded that Oahu is very unique because of its density. There needs to be a means to limit development in vulnerable areas such as dictating maximum size of homes in areas that are hazardous.
- Alegado asked what has been the process and policy for historical structures of cultural significance. Lemmo replied that people will need to have an open dialogue with local practitioners and come to terms that important historical sites will be lost over the next century, such as fishponds, burials, iwi.
- Coffman commented that a couple of years ago, the Attorney General (AG) made a ruling regarding shoreline takings. Lemmo clarified that there is a distinction between regulatory taking and taking by the sea. The AG ruled that an individual no longer has rights to their property if it lost to the sea. Once the shoreline advances landward, the land reverts to public land. However, OCCL has chosen to avert a chaotic situation by giving homeowners emergency permits to fortify their homes. OCCL noted that it is not sustainable.
- Resident Michael Plowman asked for Lemmo's thoughts on a plan by the Marine Corps to build a giant seawall on Ewa Beach. Lemmo shared that it has been brought to his attention a few years ago, and that the military does not have to abide by state or city regulations. Plow man asked if a giant seawall would affect property adjacent to the seawall to which Lemmo replied that it would.

Discussion and Possible Action on efforts Subsequent to the Study, "Assessing the Feasibility and Implications of Managed Retreat Strategies for Vulnerable Coastal Areas in Hawaii," commissioned by the State of Hawaii Office of Planning – Justine Nihipali from the State of Hawaii, Office of Planning:

- Justine Nihipali introduced herself as the program manager for the state Coastal Zone Management (CZM) program. CZM is housed in the Office of Planning, administratively attached to the Department of Business, Economic Development and Tourism (DBEDT).
- Hawaii is one of 34 states in the national CZM program. It is funded through cooperative agreement with NOAA. In 1972, the national CZM program was founded with the premise that land adjacent to coastal areas is important for economic development. In Hawaii, CZM areas include the entire state, which is not the case in the US mainland. This is to recognize that anything happening mauka can affect near-shore environments.
- Every five years, NOAA requires CZM to release a five –year strategic plan for certain types of funded. They select two of the nine enhancement areas, currently working on ocean resources

management plan and coastal hazards. One of the plans is called the Ocean Resources Management Plan, which is focused on integrated management and collaboration. They also meeting once a month to collaborate on projects.

- Regarding the managed retreat project, some of the members include county planning departments, colleagues at UH Sea Grant, and HI-EMA. It was composed of background research and literature review of areas who have successfully completed managed retreat. The group held a day-long symposium to share ideas on managed retreat. The final report is also available to the public.
- For Hawaii, there are a lot of concerns about using public dollars to buy out highly priced coastal properties and the equity of doing so. The counties are also losing their property tax base. They also have to be concerned with moving people to neighborhoods that may not be able to handle the influx of people – such as schools, churches, and infrastructure (roads, sewage, etc.).
- CZM has supported a project to conduct analysis of research-based shoreline setbacks for Hawaii counties. They have laos funded designs of mapping for probabilistic 2500 year tsunamis which helps to apply building standards for critical infrastructure.
- The next five-year plan is set to be released in March 2020. This five-year plan is a result of face to face meetings in eight locations and an online survey which mirrored the public meetings.

Questions and Comments that Followed:

- Keener asked about buybacks in New Jersey. Nihipali responded that Fawn Mc Gee with the new Jersey government used HUD funding to complete the buybacks. The average price of the buyback was \$300,000 per home. The properties now are being converted to public space, such as a public park. Nihipali commented that property values in Hawaii are much higher, which may make this strategy not feasible.
- Alegado asked about managed retreat in regards to the homeless populations. Nihipali acknowledged that it is not in her report, but it should be.
- Coffman asked about the workshop where people raised concerns about using public money to buy out expensive homes, which raises an equity issue. Coffman asked if there have been examples elsewhere of a scaling of buyout programs. Nihipali says there is a Harvard paper which states the best way to implement managed retreat is to have transparent criteria.

Discussion and Possible Action on Shoreline Setback Practices on Oahu – Dr. Katia Balassiano from the City Department of Planning and Permitting:

- Katia Balassiano introduced herself as the chief of the Land Use Permits Division within the Department of Planning and Permitting (DPP). The division handles land use permits including conditional land use, zoning adjustments, variances, and specials district permits. They also process SMA permits and shoreline variances and they are responsible for updating regulations.
- The LUPD is in the process of updating the Chapter 23 shoreline setback regulations. About a year ago, they applied for funds, were not successful but they were able to work with the Resilience Office to reapply for FEMA funds. This will be the first update since 1992. The update will be modeled after Kauai's regulations which are more robust.
- Oahu has a 40 feet setback rate, which is applied to all coastal areas. They are looking to update the setback rate to be based on erosion rates, which will make it variable-based. The update will coincide with the update of the Primary Urban Center (PUC) development plan. They have concluded that not all properties can be saved from coastal erosion.

Questions and Comments that Followed:

- Keener asked how the Commission could provide either input or assistance. Balassiano replied that the Commission's white papers have already helped. Balassiano commented that in Mayor Kirk Caldwell's letter to the commission regarding shoreline setbacks, there should be a way that the commission can work with DPP since DPP is the implementing department, however DP does not currently have the funds or resources to do this. Balassiano added that the City and County of Honolulu is not part of the CZM program, but hope to be in the future which will add a Sea Grant staffer as an additional resource.
- Balassiano commented that DPP is concurrently tasked by City Council to update the land use

ordinance, which includes the zoning code. They have reached out to AIA, APA, and other land use professionals. Balassiano commented that they hope to have the amendments to the Planning Commission by December 2019 and that it has been 30 years since the land use code have been reviewed at a holistic level.

- Constituent Harvey King introduced himself as a student at Windward Community College and asked how permitting regulations adjust to population levels. Balassiano responded that in terms of anticipating a growing or changing population, DPP has been focusing on new residential populations around rail stations, which would ultimately encourage people to use the rail more and use their cars less. Balassiano added that monster homes are a result of cost of living and overcrowding issues since people are finding it cheaper to convert or build new homes that could be internally subdivided. While new monster homes regulations are in place, DPP has recently adopted new regulations that allow for construction or redevelopment of apartments in areas that affordable housing is necessary.
- Nancy McPherson, a planner with the State Department of Hawaiian Homelands, asked about sea level rise exposure areas in areas identified within Transit-Oriented Development. Balassiano commented that the older the plans, the less sea level rise was considered in the plans. Now that they are looking at the plans, they will now having conversations about the cost of raising buildings, raising roads and utilities and how much of the work is feasible.

Report on Shoreline Setback Practices Research by Climate Change Research and Policy Analyst AmeriCorps VISTA Christine Pereira:

- The Coastal Zone Management Program includes 21 coastal states that implement no-build areas to regulate ocean shorefront development. There are seven states which implement erosion-based no-build areas, including George. Guam uses a fixed distance criteria. Florida uses all three criteria: fixed-distance, erosion-based, and mean high water mark. The document with this information can be shared with the commission and the public.

Questions and Comments that Followed:

- Keener asked which method was the most progressive. Pereira will follow up.
- McPherson asked if Pereira looked into how to Washington State interacted with tribal communities. Pereira said she did not look into this issue.

Public Input for Matters Not on the Agenda:

- Constituent Svea Breckberg brought up a concern that single family homes built before 1988 are not built to withstand hurricanes. Breckberg added that 369,110 of the 525,000 homes were built before 1990. Breckberg would like to see an educational campaign to educate homeowners on hurricane preparedness.
- Constituent Michael Plowman brought up a concern about a project being completed by the Marine Corps in Ewa Beach. Plowman commented that the reef runway was installed in the 1970s and since changed the shoreline, and now there are nine groins near the entrance of Pearl Harbor due to erosion which was done without completing an environmental impact statement. Plowman commented that they are also installing steel sheet piles near the reef, which is next to Pu'uoloa Beach Park, a legacy beach for Ewa Beach residents. Plowman asked for the Commission's assistance.

Tentative Next Meeting Date: The next Climate Change Commission meeting date is tentatively scheduled for November 18, 2019 from 5:00 p.m. to 7:00 p.m.

Announcements:

- Coffman announced that the Commission will be having more meetings in the evening and outside of urban Honolulu to allow for greater public participation.
- Coffman commented that Layla Kilolu has been working on an equity brief. Alegado will replace Coffman and will work on the equity brief with Keener.

Adjournment: The meeting was adjourned at 4:19 p. m.