

CLIMATE CHANGE COMMISSION
CITY AND COUNTY OF HONOLULU

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ROSIE ALEGADO, PH.D.
VICTORIA KEENER, PH.D.
BETTINA MEHNERT, FAIA, LEED AP O+M

Climate Change Commission
Monday, November 26, 2018
Mission Memorial Building, 1st Floor Hearings Room
550 South King Street
Honolulu, HI 96813
Meeting Minutes

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

Members Absent: None.

Public: Executive Director Josh Stanbro, Rocky Mould, Matthew Gonser, Uyen Vong, and Hayley Cook (Office of Climate Change, Sustainability and Resiliency); Courtney Sue-Ako (Corporation Counsel); Dave Raney; Anu Hittle and Philipp LaHaela Walter (Department of Land and Natural Resources); Nathan Eagle (Honolulu Civil Beat); Lori Ann Saunders (Blue Planet Energy); Bruce Tsuchida (Townscape, Inc.); Joshua Cooper; Bob Stanfield; Kem Lowry (University of Hawai'i at Manoa); Nami Ohtomo (WSP); Nancy McPherson (Department of Hawaiian Home Lands); Andrei Shkvorov; G.M. Ogle; Steven Moylan; D. Seo

Call to order: Chair Makena Coffman called the meeting to order at 3:09 P.M.

Roll Call: All five commissioners were present. Quorum was established.

Approval of the Meeting Minutes of May 8, 2018 and October 16, 2018: The minutes of October 16, 2018 were unavailable and approval was pushed to a future meeting agenda. The minutes of May 8, 2018 were adopted as amended (**AYE:** Coffman, Fletcher, Keener, Mehnert; **NAY:** None; **ABSTAIN:** None.)

- Page 5, "resilience" should be "reliance".

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

Executive Director Josh Stanbro presented the following report:

- Stanbro introduced Peter Jenkins of 100 Resilient Cities (100RC), working as part of 100RC's technical capacity support to look at future development around the rail. Jenkins congratulated the Commission on the recently issued and adopted recommendations. Jenkins noted in his work with coastal cities similarly experiencing issues of sea level rise and climate change, the need for a similar type of commission to review best available science and issue independent recommendations to local government to inform planning and decision making has come up in places like Houston and Miami Dade County.
- The Resilience Strategy working groups held their final meeting and prioritized their recommendations for the Resilience Strategy that will come out first quarter next year.
- CCSR held a design symposium at an American Institute of Architects convening to work on what the future of resilient city planning looks like.
- CCSR has now held seven out of eleven scheduled community meetings on the Climate Action Plan around the island with strong public participation. Stanbro noted it is wonderful to see the

way the City Council have eagerly partnered with CCSR to co-host the meetings.

- The City of Honolulu was selected as one of 20 cities to be awarded the Bloomberg American Climate Cities Challenge grant, which will focus on accelerating progress toward a carbon free economy, especially in the transportation sector. Bloomberg will be providing technical services/assistance and embedding a specialist within the City & County. The first meeting of the cohort will be held in Pittsburgh next week.
- Mayor Caldwell just held a press conference to shed light on the recently released National Climate Assessment to elevate the most comprehensive assessment around climate in terms of impacts and trajectory.
- The Dutch group Arcadis is in Honolulu to look at sea level rise issues and design for the future in the Iwilei/Kapālama area. Piet Dircke of Arcadis, a global leader in water management will be giving a public talk on November 27 at 6pm at HPU Aloha Tower to share how the Dutch have wrestled with water and what Honolulu can do to reduce risk.
- Councilmembers Fukunaga and Kobayashi introduced Resolution 18-221 urging the City administration to adopt and establish renewable energy goals, many of which are in alignment with commitments the City has already made, as well as with recommendations from the Commission. The resolution is scheduled to be heard in the Public Works, Infrastructure and Sustainability committee this week. Stanbro noted that it is positive to see council leadership aligning with the administration around climate issues and that CCSR wholeheartedly supports the resolution.

Questions and comments that followed:

- Keener asked Stanbro to clarify what a resolution means. Stanbro responded that it is a statement of position that serves as a strong foundation for which to bring policies that align with the goals and statements in the resolution. Keener asked if the resolution's purpose is just to establish a goal and not to get into the specifics of how things would be done. Stanbro responded that there is some hardline statements that can easily translate into policy, such as language on adopting the Power Past Coal by 2022 initiative.
- Fletcher asked for the last date to submit testimony on the resolution. Stanbro responded that it is 24 hours before the hearing scheduled on November 27 at 1 p.m. Fletcher asked if the resolution could use comments from the Commission aside from general support. Stanbro encouraged the Commission to review the resolution and offer comments if they would like.
- Coffman asked about the duration of the Bloomberg grant and where the specialist position will be housed. Stanbro responded that the current plan is for a two year position that will sit within CCSR and work across departments, especially with the Departments of Transportation Services, Planning and Permitting, and Facility Maintenance.
- Dave Raney noted that the Hawai'i Kai Climate Action Plan community meeting focused on mitigation strategies and asked about the process of beginning to look at adaptation strategies. Stanbro responded that CCSR endeavors to complete a climate action and adaptation plan, but will take it on in parts, starting with mitigation. Stanbro noted that some adaptation work at a high level is being done by the working groups, but hopes to have a comprehensive adaptation component to the plan next year. Coffman noted that for the primary urban center, the community development plan is currently ongoing.

Discussion on Developing a White Paper on Topics of Climate Change and Risk:

- Coffman noted that the process of developing the white paper thus far was to send an outline for each commissioner to populate different sections, with the intent to use today's meeting to stitch the pieces together and identify gaps.
- Coffman described the current outline of the paper which included sections on: (1) Introduction for context as to how rating agencies are starting to evaluate climate change as it will undermine the fiscal health of cities; (2) Physical science of increasing hazards; (3) Physical responses to hazards, including building codes and land use codes; (4) Financial, market-based responses to risk mitigation, including peer-reviewed literature to understand what other cities are doing; and (5) Status of what Honolulu is doing and could do.

- Fletcher provided an overview of the section on increasing hazards, which includes information on distinguishing shocks and stresses, global trends, and recent literature on drought, tropical cyclones, extreme rainfall and weather disasters. The section also provides information on U.S. trends and Hawai'i specific information, reviewing the salient information with regard to extreme weather from the Climate Change Brief.
- Alegado suggested focusing more on Hawai'i-specific regional trends first, expanding on flooding and tropical cyclones and including marine heat waves and tsunamis.
- Alegado noted that the current section on increasing hazards focuses on the urban core, but as an O'ahu-wide commission, it is important to look at the impacts in rural areas as well.
- Keener noted a challenge in providing specific recommendations. Fletcher suggested peer-review. Coffman noted the Commission can comment on the different market mechanisms that exist without specific recommendations.
- The Commission discussed organizing the risks in terms of chronic stresses (tidal and storm flooding, season coastal erosion, seasonal drought, multi-annual El Niño with increased frequency of hurricanes, rising sea surface temperature, sea level rise, increasing heat, wildfire, and migration) and catastrophic shocks (tropical cyclones, El Niño with coral bleaching, marine heat waves, heat waves, extreme precipitation, and tsunami).
- Alegado suggested making note of the extreme events that have happened in Hawai'i, like the flooding in Kaua'i in April 2018 and the impacts of Hurricane Lane in Hilo. Keener suggested prioritizing the events in terms of their chronic or catastrophic impacts, and Alegado suggested noting the number of times the event has happened in the last 50 years state-wide.
- The Commission discussed keeping the content of the white paper focused specifically on O'ahu versus state-wide. Alegado argued that many of the hazards, such as hurricanes, affect the whole state.
- The Commission discussed resources that already exist characterizing hazards and responses to them. Fletcher noted the U.S. Geological Survey Atlas of Natural Hazards in the Hawaiian Coastal Zone and Gary Chock noted the Honolulu Hazard Mitigation Plan update, which will include a chapter on each hazard.
- The Commission discussed focusing on only shocks, as the financial mechanisms for shocks and stresses are dramatically different. Alegado suggested if focusing only on shocks to make explicit the intent to address stresses at a later date. Mehnert suggested that stresses might be easier to digest as it might not be possible to prepare for the shocks. Coffman noted that the rating agencies are interested in both stresses and shocks.
- The Commission discussed structuring the white paper in three tables: (1) Physical characterizations of the shocks and stresses (to be completed by Fletcher and Alegado); (2) Types of physical response mechanisms to address stresses and shocks (to be completed by Mehnert); and (3) Types of financial response mechanisms to address stresses and shocks (to be completed by Keener and Coffman).
- The commission discussed with Corporation Counsel the possibility of editing the white paper on a Google doc viewable to the public. Sue-Ako suggested discussing in Executive Session at the end of the meeting.

Questions and comments that followed:

- Dave Raney noted that the State Climate Commission recommends moving ahead with mandatory disclosures and there is a California Coastal Commission guidance document on assumption of risk trying to make clear that there will be building restrictions. Coffman noted that she read that if armoring was done, a payment would be made as a transfer of value, but there is a different legal context for Hawai'i beaches.
- Bob Stanfield noted that it is important to consider the level of risk that is reasonable to protect against and that there is a value choice about how much financial risk you're willing to accept versus how much you're going to spend. Stanfield noted how the Dutch protect against the 500 year flood as opposed to the 100 year flood, and Coffman commented that well-crafted insurance products can incentivize the mitigation of physical risk.

- Stanfield suggested that for long-range sea level rise issues, regulation is required because financial incentives through the insurance market will not work, as policies do not give incentives that reflect a longer-term perspective. Fletcher noted examples of adding a foot or two to the base flood requirement in other cities. Fletcher also noted an Obama-era executive order for all federal projects to consider the 500 year flood, which was rescinded by the Trump administration.
- G.M. Ogle noted another stressor to consider is the social inflow of people from neighboring islands or outflow from Hawaii which causes the loss of the tax base as people start to leave.
- Bruce Tsuchida asked if there are financial opportunities. Fletcher responded yes in insurance and the construction industry where a lot of investment will need to be made on infrastructure that is out of code and out of date. Tsuchida noted there are more basic examples such as in getting more rain, more freshwater should be collected. Fletcher noted that many municipalities have stormwater fees that go to catchment, mitigating flooding and feeding into reservoirs. Stanfield noted that Tokyo has built containments to capture rain and Chock noted that Seattle has requirements for rain catchment on commercial roofs.
- Steven Moylan noted that as an interested property buyer, the most resilient homes are in Hawai'i Kai, yet even valued over one million dollars, they are made of wood and are not likely to withstand a category one or two hurricane. Moylan noted that after storms in Guam in the 1960's, the code was changed to require concrete and steel, and no structure can be insured unless made with those materials.
- Chock offered a note of caution to not use Hurricane Lane (and its near-miss) as a poster child for climate change, as a Lane-sized event is within the range of probability for the current climate.
- Tsuchida noted that Hawai'i is on the way to the 2045 mandate and moving off of fossil fuels will help in terms of resilience and survivability, for after disasters like those in Puerto Rico and New York, electricity was key to resilience.

Public Input for Matters Not on the Agenda: None.

Next Meeting: The next Climate Change Commission meeting is tentatively scheduled for Thursday, December 20, 2018 from 3:00 P.M. to 5:00 P.M.

Announcements: None.

Executive Session: Fletcher moved and Keener seconded the motion to enter into Executive Session. (**AYE:** Coffman, Fletcher, Keener, Mehnert; **NAY:** None; **ABSTAIN:** None.)

Adjournment: The meeting was adjourned at 5:14 P.M.