



Climate Change Commission

CITY AND COUNTY OF HONOLULU

650 South King Street, 11th Floor • Honolulu, Hawai'i 96813

COMMISSIONERS

Charles Fletcher, Ph.D., Chair
Rosanna Alegado, Ph.D., Vice Chair
Makena Coffman, Ph.D.
Melanie Islam, AIA, NCARB, LEED APBD+C, LFA
Victoria Keener, Ph.D.

Climate Change Commission
Friday May 20, 2022, 9:00 AM
Zoom Virtual Meeting
Meeting Minutes **DRAFT**

Members Present: Chair Charles Fletcher, Vice Chair Rosie Alegado, Makena Coffman, Melanie Islam, Victoria Keener

Members Absent: None

Public: Coranne Park-Chun, Matthew Gonser, Courtney Sue-Ako, Ryan Ringuette, Eric Robinson, Tara Owens, Surfrider O'ahu, Gernot Presting, Jeff Overton, Morgan Stephenson, Janie Jensen, Ian Hardy, Marc Erikson, Terry Chan, David Smith, Carl Mayfield, Alexandra Grant-Hudd, Leah Laramée, Jonathon Fusiz, Walter Billingsley, Lindsey Nakashima, Shellie Habel, Duane Fisher, Alisha Summers, Dylan Senkiw, Georgina Casey, HHF Planners, Amy Wirts, Mike Plowman, Ruby Pap, Sarah Harris, Dolan Eversole, Colin Lee, Tracy Camuso, Henry Curtis, Pane Meatoga III, Chris Delaunay, Gregory Wong, Scott Sullivan, James Barry, Brad Romine

1. **Call to Order:** Chair Fletcher called the meeting to order at 9:01 AM.
2. **Roll Call:** All five Commissioners were present. Quorum was established.
3. **Approval of the Meeting Minutes of April 8, 2022 last:** The meeting minutes of August 31, 2021 were not adopted.
 - A. Commissioner Keener commented that the minutes were over detailed and recommended they be streamlined to be more compatible with previous minutes. She noted inconsistent formatting and editorial things that needed to be addressed before she would feel comfortable taking action.
 - B. Vice Chair Alegado noted that she didn't finish going through the minutes and that the minutes were long.
 - C. Commissioner Islam wanted to take another look through of the minutes and pass a revised version in the next meeting.
 - D. Commissioner Coffman had no specific comments.
 - E. Chair Fletcher decided to delay action on the April 8 minutes until the next meeting.
4. **Communications and Correspondence from the Public: None**
5. **Report on the Activities of the Office of Climate Change, Sustainability and Resiliency (CCSR):**

Executive Director Matthew Gonser presented the following report:

- A. Michelle Ahn, an Americorps Vista volunteer, has finished her service. Four new Americorps Vistas have been onboarded for CCSR and the Office of Economic Revitalization. CCSR added a new team member in budgeting and operations. CCSR currently has four positions open, which can be found online at CCSR's website.
- B. CCSR has continued efforts on Bill 22, a Better Buildings Benchmarking Program. Positive

discussions on Bill 22 have occurred with City Council and stakeholders. Bill 22 is anticipated to be on the June 14 agenda of the City Council's Transportation, Sustainability and Health Committee.

- C. Updating the energy conservation code from the State's energy conservation code has had a lot of good stakeholder engagement. Shoutout to Commissioner Islam for helping CCSR connect with stakeholders. Meetings are scheduled with individuals, groups, and topic area panels: stretching savings through innovation, making it fit for Hawai'i, actions to beat the heat, and cost savings through readiness potential and readiness measures.
- D. The Climate Ready O'ahu team concludes their 5th community engagement on May 21 at Mālama Loko I'a. CCSR will share out summary lessons from their engagements.
- E. Dexter Kishida, the lead for the program, has been doing outreach for the City's upcoming ag grant program. This program is a phase 1 effort using state, local fiscal recovery funds to support farmers and ranchers that were impacted through the covid pandemic. They are hoping for future phases and increased funding once proven successful. This program was developed through a partnership with Council member Kia'aina. The grant is not yet live, but educational sessions are ongoing, there's a kōkua line, and attention in the Star-Advertiser. CCSR is also grateful for their partnership with the Pacific Gateway Center for translation resources; all the resources will be available in eight different languages. There are also partners to support those who may need assistance getting through the application or portal.

Questions and comments that followed: None

Comments and public testimony that followed: None

6. Discussion and Action on Urban Heat Guidance Document

Chair Fletcher discussed the draft of the Urban Heat Guidance Document:

- A. He mentioned seeing a number of articles relating to upcoming food shortages and price spikes.
- B. He thanked Ryan Ringuette, Commissioner Coffman, and Commissioner Keener, for their work on the draft of the Urban Heat guidance document.
- C. From Commissioner Coffman and Keener's suggestions, he moved the global discussion of heat into the appendix. He then discussed the components of the appendix. Several of the heat related organizations in Appendix three were recommended by Vivek Shandas.
- D. From Commissioner Keener's suggestion, a table of contents was added.
- E. He provided an overview of the draft. Highlighted sections were added by an external reviewer. Commissioner Islam provided a new section on ventilation and urban design, Figure 3, Figure 4, and Figure 5.
- F. Following Comments 1-3, Chair Fletcher read the draft's recommendations.

Questions and comments that followed:

- 1. Commissioner Coffman liked that there was a lot of content.
- 2. Vice Chair Alegado liked the new organization of the draft. She still thought there may be too much information.
- 3. Chair Fletcher read an email from Vivek Shandas. Highlighted comments from the email were addressed. All heat related organizations in the email were added. Vivek Shandas' mentioned the lack of heat related communications, networks, and cooling centers; however, the body of the draft and recommendations include reference to those. Vivek Shandas' had comments regarding policies that amplify heat, perverse incentives for building like we have since the 1950s, and the distributional effects of heat (especially on Native Hawaiians). Vivek Shandas is the coauthor "The Effects of Historical Housing Policies on Resident Exposure to Intra-Urban Heat: A Study of 108 US Urban Areas." This paper found that areas that have been historically redlined still suffer today, are areas of least shade and open space, and the greatest amounts of heat. Chair Fletcher then pointed out where Vivek Shandas' comments have been added to the draft--text highlighted in yellow.
- 4. Vice Chair Alegado raised two points. 1) the Commission has committed to getting more stakeholder input, and she wanted ensure there was a mechanism for more stakeholder input beyond editing the heat document draft during Commission meetings. 2) The Commission is

advisory rather than policy making. The language in the recommendations around requirements could be too strong.

- a) Matthew Gonser commented that recommendations can be received, considered and further investigated, and wouldn't want to curtail the Commission's expertise in what the Commission thinks is needed.
 - b) Courtney Sue-Ako read the section of the Charter related to the Commission's powers and abilities—Section 6-107, subsection H. She believed phrasing the recommendations as “the Commission recommends that the C&C consider the following” is a fair way of characterizing the Commission's recommendations as providing advice and within the powers of the Commission.
5. Commissioner Coffman recommended simplifying some recommendations. For example, the cooling action plan (2b) and recommendation 3 should go together, as cooling strategies should be for both heat stressors and heat shocks. She recommended “Honolulu” should be replaced by “O’ahu” regarding the climate action plan. She recommended softening the language of recommendations 5b and 5c, as energy needs are very different for different energy uses. She recommended being careful around recommendations and language around air conditioning, as air conditioning is both an important heat adaptive response, and can stress the electricity grid and exacerbate the urban heat island effect. She mentioned how much to recommend home air conditioning versus cooling centers. She cautioned that parts of the draft conflate the urban heat island effect with heat stress, and that language regarding those two needs to be crisper. The Commission's definition of heat stress is a climate induced increase in underlying temperatures, and that heat waves are heat shocks. The urban heat island effect exacerbates both of those. She liked that some of the global heat impacts were moved into the appendix, but she still finds the document a little confusing when reading through—at what scale are the different findings? Specifically, recommendation 1, ‘intolerable heat’ seemed incongruent with asking for more heat data to be collected. Census data is only one way to identify particularly vulnerable communities for the cooling action plan, the Commission should add something about working with communities to identify vulnerable populations and people.
- a. Vice Chair Alegado agreed with Commissioner Coffman regarding identifying vulnerable groups and communities, and volunteered to develop language with Commissioner Coffman.
6. Commissioner Islam recommended moving recommendation 5a up to the cooling center recommendation (3a), and softening ‘require’ to ‘recommend’ in recommendation 5d. She wanted a discussion on how and who are involved in creating policies around heat mitigation and adaptation of the built environment, and resiliency plans; and how do we get to an actionable solution. Generally, she believed there needs to be a more holistic approach in putting all of these recommendations together into a strategy that can then be viewed by the City and City departments, so that they can find ways to make them actionable.
- a. Chair Fletcher commented that he thought she was getting at the evolution of the Commission itself.
7. Vice Chair Alegado recommended that recommendation 4 use more specific language. She commented that the recommendation currently seems like a broad, unfunded mandate. She also commented that it was unclear who was collecting the heat information.
- a. Chair Fletcher responded that he didn't want the recommendation to be too prescriptive.
 - b. Commissioner Coffman commented that recommendation could define the criteria of heat information to collect—the shape and form rather than the how.
8. Commissioner Keener agreed that community based planning language should be incorporated into the document, and that recommendations should be tightened and combined to make a more holistic cooling action plan strategy.
9. Chair Fletcher decided not to take action on the document. Vice Chair Alegado and Commissioner Coffman will take charge of the document next.

Comments and public testimony that followed:

1. Henry Curtis commented that recommendation 5c needed language regarding feasibility and cost. Providing emergency power in every single building would also impact utilities and the Public Utilities Commission.
 - a) Commissioner Coffman pointed out that this is related to her previous comments about different power loads.
 - b) Chair Fletcher mentioned that the heat wave and resulting deaths in Europe as the

- impetus for this discussion.
2. Matthew Gonser greatly appreciated the content of the document and commented that within the Climate Ready O'ahu Climate Risk Hazard Assessment, heat was a top climate risk hazard due to its likelihood and consequence.
 - a) Chair Fletcher mentioned the 2019 marine heat wave that broke over 300 temperature records.
 3. Leah Laramée commented that the information from the document would be helpful for her work. She also mentioned a working group related to greening and bluing urban spaces. She felt there may be an under emphasis of those spaces in the document. She asked if those spaces could these be highlighted more. She also mentioned the tree canopy viewer by the Community Forest program that shows the disparity in tree coverage.
 4. In chat: Walter Billingsley asked if the Commission could emphasize a need to provide green-power standby supplies and if the technology is available as many standby power supplies are typically fossil-fuel based.
 - a) Commissioner Coffman replied that the technology would be a battery system, which would be a good, but not perfect substitute.

7. Discussion on Sea Level Rise Guidance II Document

- A. Chair Fletcher commented that a mayoral directive states that additional guidance will be automatically built into the mayoral directive to the executive departments of the City. If this document is accepted, it will be incorporated under the mayoral directive.
 - a. Mathew Gonser noted that the language is something like: City departments and agencies are required to use the most current versions of the Commission's sea level rise guidance and climate change brief.
- B. Chair Fletcher read and described the reasoning for the recommendations. He defined 'interagency' as a task force composed of NOAA, NASA, and USGS (and probably the US Army Corps of Engineers), who updated NOAA's 2017 report to be consistent with the new IPCC reports and updated science. Planners choose a scenario based on the risk tolerance of the planning project. The Intermediate high scenario is used for recommendation two as it is for general planning projects; the High scenario is used for recommendation three as it relates to public infrastructure projects, which are expensive and supposed to be long lived.
- C. Chair Fletcher provided a general overview of the document. Figure 3 describes different socioeconomic projections, which constitute different greenhouse gas emission futures that create radiation forcing on earth's atmospheric heat budget—currently our closest socioeconomic pathway is SSP2-4.5. He highlighted the IPCC's new low-likelihood, high-impact storyline (the dotted line) which reflects the potential for the Greenland ice sheet and West Antarctic glaciers to be near or have passed their tipping points. Once tipping points are reached, melting becomes irreversible. He mentioned that global sea level rise will continue to rise for thousands of years even if greenhouse gas emissions are stopped today. Only cooling the planet back down by reducing CO₂ to 300 parts per million (ppm) (currently we are at 420 ppm) will we start to reverse these processes. Planning needs to think with a new lens in regard to this. He also highlighted that Hawai'i will experience sea level rise greater than the global average. He then described Figure 7, that Honolulu should use the intermediate scenario as the minimum for planning, and that the intermediate-high and high scenarios are the safe levels to use.

Questions and comments that followed:

1. Vice Chair Alegado wanted to confirm that the language in the recommendations of the new document was consistent with the 2018 sea level rise guidance document. She recommended changing the language in the recommendations from "the city and county of Honolulu should" to "it's reasonable to set as a planning benchmark."
2. Commissioner Keener commented that recommendation four didn't seem like a recommendation and recommended moving it to the Findings section. She recommended that on pages eight and nine, the five aspects of sea level rise not widely known but should be taken into account, be elevated to a recommendation. Sample language could be: the Commission recommends planning for these lesser known impacts [insert five aspects of sea level rise]. As a general comment, she recommended elevating local and regional information over global information.
 - a. Chair Fletcher commented that much of the global discussion can be moved into an

appendix

3. Commissioner Islam recommended that there should be a discussion of how to screen projects for risk to create uniformity, as designers might not all have the same level of knowledge regarding sea level rise. She asked whether adding a discussion on the impacts of the new scenarios on existing structures, and a discussion on general adaptation strategies would be helpful. She recommended adding a simple diagram showing various levels of sea level rise to visually show those differences.
4. Commissioner Coffman supported Vice Chair Alegado's comments about using similar language as the 2018 document. She asked for a differentiation between public infrastructure and critical infrastructure. She wondered what the scope of the document should be. The last sea level rise guidance document dealt with latest climate science, should the Commission give advice on the adaptation arena in the new document? She agreed with Commissioner Keener's comment about prioritizing local data and moving some of the IPCC data into the appendix. She commented that the section related to planning for sea level rise concerns itself more with the impacts rather than the response. She suggested reframing that section to be "understanding localized impacts".
5. Commissioner Keener recommended adding a table of contents.
 - a. She also had a comment related to the Heat document. She believed that the figures in the appendix requires permission to use them.
 - i. Commissioner Coffman also agreed.

Comments and public testimony that followed:

1. Ruby Pap asked whether the State had updated their sea level rise guidance.
 - a. Chair Fletcher replied that there has been no coordination with State's Climate Change Commission. He mentioned that the Commission's action on this may spur the State to move on it as well. He also mentioned that the City has a representative that sits on the State's Commission, and that person could mention it as a comment at the State Commission's next meeting.
 2. Chair Fletcher read a comment from Tara Owens asking for all thresholds to be reported in meters and feet. He agreed to it.
 3. Chair Fletcher also commented that the new thresholds are a dramatic increase from 3.2 ft of sea level rise. The 3.2 ft level of sea level rise is still valid, it is only occurring earlier. These new thresholds should hold even as more ice fractures.
 4. Gernot Presting asked whether the data collection item in the heat document could be placed first before other recommendations are implemented. Existing data could be used for some things to be implemented on right away, and more data needs to be collected for future actions. He commented that one way to include this would be to include language such as "Recommendations are in no particular order."
 - a. Chair Fletcher agreed that the recommendations are in no particular order, though we may view them otherwise.
 - b. Gernot Presting commented that it is easier to collect data then to implement costly measures.
 5. Chair Fletcher noted that Vice Chair Alegado and Commissioner Coffman will work on the heat guidance document. Commissioner Keener volunteered to join Chair Fletcher on the sea level rise guidance II document. He proposed adding the heat document for editing and action, further discussion of the sea level rise document, an update to the equity document, and a discussion on the transfer of the Commission Chair to next month's agenda. The July meeting may include the update to the climate brief and the construction industry document.
- 8. Discussion on action on testimony in support of Bill 22**
- A. Chair Fletcher read a draft of the testimony.
 - B. Commissioner Coffman recused herself from commenting on the testimony due to her work on O'ahu's Climate Action Plan.
 - C. Commissioner Islam commented that Bill 22 is about disclosing building energy and water performance, and asked whether a discussion on water should be included in the testimony. She mentioned the importance of including water in the context of the Red Hill crisis.
 - D. Vice Chair Alegado supported adding language related to water. She asked what the timing for submitting testimony on the Bill would be.
 - a. Matthew Gonser commented that the Bill currently is not a CD1, and that the

anticipated hearing for the Bill would be June 14; before the Commission's next scheduled meeting.

- i. Chair Fletcher removed language referring to CD1 from the document.
 - b. Courtney Sue-Ako commented that substantial changes to the testimony should be open to the public. The Commission could convene a meeting just for this testimony.
- E. Edits were made following questions and comments from Commissioners and the public. The testimony for Bill 22 as amended was adopted. (**AYE:** Keener, Alegado, Fletcher, Islam; **NAY:** None; **ABSTAIN:** Coffman).
- a. Matthew Gonser requested that the draft testimony be sent to Corrane for non-substantive edits.

Questions and comments that followed:

1. Commissioner Keener proposed language related to water to be inputted after paragraph four: "In light of ongoing drought conditions in Hawai'i, the current water conservation recommendation from the Board of Water Supply, and projected future climate change impacts, it is critical to monitor water use and wastewater production."
2. Chair Fletcher added the following sentence: "Bill 22 provides for this monitoring."
3. Commissioner Islam proposed language related to water for paragraph five: "the inability of existing systems to handle peak hourly demand."
4. Vice Chair Alegado proposed including language relating to Red Hill for paragraph five.
 - a. Commissioner Keener proposed the following language for paragraph five: "The Red Hill crisis has negatively impacted O'ahu freshwater resilience."

Comments and public testimony that followed:

1. Henry Curtis commented that the language calling building's the biggest source of emissions is only correct so far as how things are currently measured. Full accounting would identify aviation as the biggest emitter.
 - a. Chair Fletcher commented the current language doesn't pin buildings as the largest source of emissions.
 - b. Henry Curtis recommended adding "in-state" before greenhouse gas emissions in paragraph three.
 - i. Chair Fletcher adopted the recommendation.

9. Public Input for Matters Not on the Agenda: None

10. Tentative Next Meeting Date: The next meeting date is scheduled for June 24, 2022 at 9:00 AM via Zoom.

11. Announcements:

1. Commissioner Coffman requested the heat document be sent to Vice Chair Alegado and herself.
2. Chair Fletcher noted that the School of Ocean and Earth Science and Technology at UH Mānoa will be hosting a public speaker, a physical oceanographer from Australia named Matt English, on June 21, 2022 at 6:00 PM on the ocean's role in climate change.

12. Adjournment: The meeting was adjourned at 10:57 AM.