

CLIMATE CHANGE COMMISSION

CITY AND COUNTY OF HONOLULU

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

Climate Change Commission
Tuesday, March 19, 2019
Council Committee Room, 2nd Floor Honolulu Hale
530 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, Uyen Vong, Hayley Cook, and Ujay Siddharth (Office of Climate Change, Sustainability and Resiliency); Courtney Sue-Ako (Corporation Counsel); Julius Fischer (Hawaii Green Growth); Mike Hamnett (Ala Wai Watershed Collaboration); Henry Curtis (Life of the Land); Dave Martin; Susan Mukai; Dean Nakano; Alex Nakao; Mark Hagadone; Randy Ching; Bruce Tsuchida; Cari Ishida; Kirsten Baumgart Turner; and Elizabeth Guni.

Call to order: Chair Makena Coffman called the meeting to order at 3:01 P.M.

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

Approval of the Meeting Minutes of January 8, 2019: The minutes of January 8, 2019 were adopted as amended (**AYE:** Coffman, Fletcher, Keener, Mehnert; **NAY:** None; **ABSTAIN:** None.)

- On page 2, "prince" should be "price".
- On page 3, "though" should be "thought".

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

Executive Director Josh Stanbro presented the following report:

- The City's Resilience Strategy is likely to be released before the commission meets again. CCSR is looking forward to releasing the strategy with its tangible goals that have been articulated by the community.
- By charter, CCSR is required to conduct regular reporting of the City's environmental performance and present it to the mayor and city council members. The office expects that to be released within the next month and will be annual going forward to continually measure key metrics.
- Honolulu was selected as one of 25 cities in the Bloomberg Philanthropies Climate Challenge which provides Honolulu with technical support and an embedded technical assistant in the office. CCSR is close to having that person on board and is also finalizing the memorandum of agreement with Bloomberg, as well as the nine point plan that will accompany it.
- As part of the City's commitment to uphold the Paris climate agreement, CCSR has conducted an island-wide greenhouse gas inventory which should be released within the next few weeks. The office is working to release the inventory in alignment with the other three counties on the heels of the release of the state's inventory.
- CCSR has been conducting stakeholder meetings in an effort to update the island's electrical and

energy codes, one of the most important ways to drive down emissions, and which haven't been updated since 2007. The codes will be updated to 2015 standards and have local amendments to help push forward electrification of transportation and efficiency in terms of hot water production.

- CCSR has been actively representing the City at the Public Utilities Commission (PUC) and intervening in the performance-based regulation docket to put forward the City's vision of the utility of the future that is working to drive down emissions and protect against the risks of climate change while delivering cost effective services. The filings will be online within the next few days.
- CCSR is playing a role in the Ala Wai community meeting, along with the Department of Emergency Management, Commission Vice-Chair Fletcher, and the Army Corps of Engineers, to have a discussion on the risks in the watershed, as well as one potential solution.

Questions and comments that followed:

- Fletcher asked Stanbro to expand on the office's work with the PUC. Stanbro responded that CCSR would like to see a utility rewarded for performance in certain criteria that look at the concentration of greenhouse gases per kilowatt-hour and incentives and rewards for moving faster on the state law of 100 percent renewable by 2045. CCSR is also interested in grid resiliency and finding ways to incentivize microgrids and the ability to decentralize the grid.
- Fletcher asked Stanbro if he is aware of any strong effort to follow the suggestions of the Elemental Excelerator report that pushed for 100 percent renewable by 2030. Stanbro responded that the report was referenced by the office in the PUC docket but believes its legacy lies with the individual groups that are advocating for it.
- Coffman asked Stanbro to expand on the core metrics of the environmental reporting for the City. Stanbro responded that there are over 20 metrics in the report including tracking greenhouse gas emissions, tree canopy cover and number of trees planted, number of bike lane miles, and penetration of renewable fuel vehicles in the City's fleet.
- Mehnert asked Stanbro where the City is currently at in terms of canopy coverage. Stanbro responded that the island's canopy has decreased from 26 percent to 23 percent, not due to large-scale removal, but individual trees taken out either by request from neighborhoods or lack of similar replacement levels after street redesigns. Stanbro added that the current FY20 budget has about 700,000 dollars in increased funds for community foresters and nursery operations to help reach the mayor's goals of planting 100,000 trees by 2025 and reaching 35 percent urban canopy by 2035.
- Henry Curtis commented that in a response to a discovery question, HECO noted that if the grid had 35 percent renewables, 65 percent fossil fuels, and equivalent 80 units of rooftop solar then the renewable portfolio standard would be 115 percent. The Elemental Excelerator study reported using a mathematical definition which is not part of the state law. Also, within the state law there is nothing within the definition of renewable energy that mentions climate change, and the 100 percent renewable only applies to electricity and not gas.

Presentation on the Ala Wai Watershed Collaboration by Julius Fischer and Mike Hamnett:

- Hamnett noted that following a U.S. Army Corps of Engineers (USACE) presentation about its infrastructure project, there was a recognized need to engage a broader group of stakeholders. A meeting was convened in January of 2015 and it was decided the group should continue to meet, which became the Ala Wai Watershed Collaborative (Collaborative).
- Fischer introduced the Collaboration as a group of people facilitated by Hawai'i Green Growth coming together across sectors to find solutions to challenges in the watershed. The Collaboration meets quarterly and has three working groups: (1) Policy, finance, and infrastructure; (2) Culture, community and education; and (3) Environmental quality, research, and science.
- An example of a Collaboration project is the redevelopment of Old Stadium Park in Moiliili. The Collaboration partnered with Blue Zones, the University of Hawai'i, and Arizona State University to create new designs to show how the park could have a hydrological function of preventing stormwater runoff, filter water, increase community health and mobility, and tell the story of place. Another example is the Make the Ala Wai Awesome Challenge design challenge for students to reimagine the space as an opportunity to think positively about the challenges in the watershed.

- Fischer presented facts about the Ala Wai watershed:
 - The watershed is about 19 square miles and contains 200,000 residents and 80,000 visitors any given day.
 - The watershed is 40 percent conservation zoned and 60 percent urban zoned.
 - Waikīkī is an important feature in the watershed and consists of ten percent of the state's tax revenue, jobs, and GDP. The University of Hawai'i Mānoa campus is another important feature.
 - The watershed contains a number of different important cultural sites, including one intact heiau, the Kūka'ō'ō Heiau.
 - The boundaries of the watershed sit in two different ahupua'as. Most within the Waikīkī ahupua'a, but another part in the Honolulu ahupua'a, which is a result of when the Makiki stream was diverted into the canal.
- Fischer presented challenges in the watershed which include: Current infrastructure – a lot of the watershed is paved over by concrete or asphalt which causes flooding issues; low water quality in the canal; risk of flooding from hurricanes and sea level rise; and lack of connection to place for residents in the watershed
- Hamnett noted that the Collaborative is looking into creating an entity that can work with a variety of stakeholders to support work in the watershed in the form of a watershed improvement district, which would be similar to the Waikīkī beach replenishment special improvement district, and would be able to bridge gaps due to city and state jurisdictional issues, sponsor community dialogue, and potentially conduct the maintenance of the resulting USACE flood control project and other infrastructure projects. Fischer noted that the Collaboration conducted an analysis to determine all the options of what type of entity the Collaboration should pursue. The options were a special improvement district, a semi-autonomous City agency, or an entity similar to the Hawai'i Community Development Authority. The Collaboration did a legal and policy analysis for creating a special improvement district and collectively decided that was the option to pursue.
- Fischer and Hamnett noted that many people have various issues with features of the USACE plan because it is still at the 20 to 30 percent design level, which means there is an opportunity to figure out what the plan looks like in real time and connect it to other initiatives like the City's complete streets plans.
- Robert Kroning noted that the USACE project's feasibility study and environmental impact statement shows the different alternatives studied and the one chosen, which entails a set of detention and catchment basins up in the valleys down through to the Ala Wai golf course with flood walls around the canal. It also includes two pump stations to help water flow out into the ocean. There has been discussion around giving up a lane of Ala Wai Boulevard to allow for more space to put the flood walls further away from the canal and utilization of the interior area for a multimodal use path.
- Hamnett and Fischer discussed the level of design completion with the Commission. Hamnett noted that they are currently in the process of looking at where there is wiggle room on the USACE project. Coffman noted her understanding was that the flood control elements are reasonably set in stone. Hamnett responded that the achievement standards are set in stone. Kroning added that the design is fairly set and the rest of the 70 percent design is more in terms of engineering of the specific pieces of the system. Kroning noted that he wouldn't expect the overall design to change dramatically.
- Hamnett commented that there is wiggle room for the complimentary use aspects of the design, but while the USACE is in favor, they're not going to pay for it as the project is only to meet the design standards for a once in a hundred year flood. Hamnett noted that in maps for the USACE project, the flood footprint for a 25 year, 50-year, and 100-year flood are almost exactly the same with a difference in the depth of the water, but he could not comment on what the depths are.
- Fischer presented on the community investment vehicle (CIVic) to help the Collaboration support a pipeline of projects in the watershed, including the USACE among others. CIVic would be a nonprofit, 501c3 entity that can work across jurisdictions and would help with maintenance of projects, create community dialogue, handle project coordination, and look at the watershed from a long-term resilience point of view. The vision is for CIVic to have a balanced board of five

government stakeholders, five business representatives, and five community organizations. It would be created as the special improvement district passed through City Council and would be financed by a supplemental service fee in addition to an island-wide stormwater fee, called stormwater fee plus. CIVic would be eligible to apply for grants and enter public-private partnerships. It would (1) create a holistic master plan that takes into account the Board of Water Supply watershed management plan, the Department of Facility Maintenance stormwater management plan, and the Department of Planning and Permitting general plan; (2) procure maintenance for projects; and in the long-term, (3) take over maintenance of USACE project features; (4) conduct specific climate adaptation planning in Waikīkī; (5) update the data sets and incentives for the stormwater fee.

- Fischer noted that reinsurance company Swiss Re suggested to the Collaboration that while stormwater management districts are not unique, a district that manages resilience holistically would be a game changer.
- Kroning commented that the City is very grateful for the Collaboration and the work it's done, particularly in the value it adds to connecting the work with the community. The City fully supports the CIVic and will continue to work with the Collaborative.

Questions and comments that followed:

- Fletcher asked where there are individual landowners who are impacted by the design elements of the USACE project if there has been focused discussion in each case to eliminate or confirm that the intersection with the private landowners is the only possible option. Hamnett responded that while the USACE claimed that to be the case, there were complaints from people who said they had never been consulted. Coffman asked how many properties had been identified. Kroning responded that 37 total properties had been identified as being somewhat affected, and of those, four will probably be entire acquisitions. The other properties are pieces that require easements, and some are only temporary for during construction.
- Mehnert asked Fischer for an explanation of the image of a college level student design submission for the Make the Ala Wai Awesome Challenge. Fischer confirmed that it showed a floating boardwalk structure so as the Ala Wai fills with more water, the boardwalk would travel up on the wall.
- Keener asked Fischer how difficult it would be to establish the watershed as a special improvement district. Fischer responded that it would need a lot of support to pass through ordinance at the City Council. The Collaboration is focusing on this over the course of this year by reaching out to neighborhood boards and other stakeholders.
- Fletcher asked if the stormwater fee would be island-wide or only applied to properties in the watershed. Fischer responded that the Department of Facility Maintenance is considering an island-wide stormwater fee, and the stormwater fee plus would make the fee a little higher for properties in the watershed.
- Coffman asked about the precedence for creating a special improvement district that focuses on residents as opposed to the commercial sector like the Waikīkī special improvement district. Fischer responded that it would be unique as current special improvement districts have not acted at the residential level nor at the scale as large as the watershed.
- Fletcher asked how USACE defines a 100-year flood. Hamnett responded that it is a large rainfall event in the mauka regions that does take into account the effects of sea level rise but not the effects of a hurricane. Henry Curtis asked if there should be a project to cover both large rainfall events and hurricanes. Kroning responded that the USACE project is not going to solve every scenario, and the City needs to take into consideration how to protect citizens from water from all directions.
- Coffman asked what level of sea level rise is considered in the USACE modeling. Kroning responded that updated numbers are 2.5 feet in 50 years and 3.7 feet in 100 years.
- Fischer asked the best way to communicate with the Commission going forward to get to where it might recommend the implementation of the CIVic to the City. Coffman responded that any documentation, notice of meetings, and the policy analysis should be shared with the Commission. Coffman noted that the Commission would be eager to have a follow up

conversation when the time is right in terms of moving forward with recommendations.

- Ben Trevino commented that he is very impressed with the work of the collaborative and applauds Kroning and the work of the City. Trevino drew the Commission's attention to the work of Sean Connelly who does spatial analysis, 3D, and GIS work to look at the Ala Wai watershed as a holistic ahupua'a with a historical perspective.

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

- Coffman announced that the Commission is waiting for an additional meeting with the Department of Budget and Fiscal Services (BFS) to get more data on the City's insurance coverage, and the white paper's recommendations will be strengthened with that information.
- Keener noted that since the last meeting, the paper had been simplified and streamlined with the critical findings intended to be brought up to the top of the document. The paper outlines the financial options and then evaluates their relevance in relation to specific shocks and stressors.
- Coffman suggested Table 2 "Design responses to stresses and shocks" doesn't fit into the paper, but is critically important and could be its own white paper.
- Keener noted that citations from the Fourth National Climate Assessment had been added to Table 1 on shocks and stressors.
- Coffman announced that the commission has been in contact with Hawai'i Insurance Commissioner Colin Hayashida to better understand hurricane data. It was found that the data on private hurricane coverage in its current form is confidential and cannot be shared as is. Therefore, the commission won't be able to assess the private exposure to hurricanes. However, the commission is working on the possibility of adding another question to the insurance commission's annual survey that would make an aggregated version of the data publicly available in the longer-term. Coffman also noted the initial intent of the state hurricane relief fund was to bring insurers back and not necessarily to act as insurance itself. Since the fund hasn't grown in magnitude in almost two decades, there was a question as to whether it could accomplish the same goals today.
- Mehnert suggested defining "weather disaster" as referenced on page 3 under the heading "Shocks".
- Mehnert suggested adding the years 2017 and 2018 in addition to 2015 and 2016 as hottest years on record on page 4 to show the trend.
- The commission discussed the data that exists in the white paper. Coffman noted that in the section discussing cost of property damages on page 5, the data came from Dr. Kitty Courtney of Tetra Tech who was the lead on calculating property tax estimates for the state's vulnerability and adaptation report. Coffman received the breakdown of how she calculated the 12.9 billion dollars of loss in the 3.2 SLR-XA between the tax categories. The analysis accounts for the entirety of properties, so the estimate that the losses account for almost eight percent of total annual property taxes is an overestimate, but still provides a magnitude from which to work with. Fletcher noted that it could be thought as though the revenue loss would occur sooner if there was total abandonment or retreat from the 3.2 SLR-XA. Mehnert noted that the eight percent number might be misleading because there are additional impacts from flooding relative to just the damage of the first floor of a building. Coffman noted that the white paper takes a very financial perspective, but the state report includes the number of residents in the SLR-XA.
- Fletcher noted that there could be a financial analysis of a Hurricane Iniki-type storm hitting the primary urban center today and at one meter of sea level rise. Coffman suggested that could be done with more research capacity.
- Coffman suggested the commission work on better understanding how the City's hazard mitigation plan calculates the annualized version of the hurricane figure and how the plan's update is relative to the current figure.
- Fletcher noted that since Miami Beach decided to spend 500 million dollars, they must have done an economic calculation a decided it was worth it to spend that much and presumably go into debt with bond issuers to raise the 500 million dollars.
- The commission discussed the potential to make a recommendation to the City to convene a workshop or conference for private insurers on O'ahu to talk about parametric insurance and

potential hurricane or heat wave strikes and ways to financially get out in front of risks by scenario analysis.

Questions and comments that followed:

- Mehnert asked why the property tax data is from 2013 and not more recent. Coffman responded that while the property tax revenue numbers are available up to 2018, the work of breaking out the SLR-XA maps onto the property tax rates hasn't happened since 2013.
- Henry Curtis asked how long it would take to recover the eight percent of property tax losses assuming build out. Coffman responded she is not sure how long it would take and has only seen one study from Louisiana that documents how properties are not getting higher valuations at the same rate as properties in less vulnerable areas. There is a bullet in the white paper that reads, "There will be a shifting value to other properties", but it is unknown how long that will take. Keener noted the paper points to the example to Florida's Citizens Property Insurance Corporation where the state decided not to deal with the shifting property values by creating a government insurance organization that would insure properties that were uninsurable as deemed by the insurance companies that fled after Hurricane Andrew.
- Fletcher asked Stanbro if the City has done a financial analysis of a category four hurricane strike. Stanbro responded that the Department of Emergency Management or the risk department within BFS would be better poised to answer the question.

Public Input for Matters Not on the Agenda:

- None.

Next Meeting: The next Climate Change Commission meeting will be scheduled at a later date.

Announcements:

- Stanbro announced that the U.S. Conference of Mayors is being held in Honolulu for the first time since 1967 where 200 to 300 mayors will gather from June 28 to July 1, 2019. The agenda is set by the U.S. Conference of Mayors and it is not a public conference. Mayor Caldwell has agreed to put on a Climate Mayors Summit the day preceding the conference and Stanbro is not sure if an invitation will be extended to the commission members.
- Coffman announced tentative next meeting topics: (1) a presentation from the State Office of Planning to understand the City components of the state shoreline managed retreat report; (2) a presentation from the Citizens Climate Lobby on the national carbon bill for the commission to decide if they will sign on as a supportive entity; and (3) and update on greenhouse gas inventories from the State Department of Health and CCSR.
- Henry Curtis asked if Life of the Land could be put on the agenda to make a counter proposal for the carbon tax.
- Keener announced that a mechanism and funding was secured for an intern to help with research for a six month term with opportunities for renewal.

Adjournment: The meeting was adjourned at 5:02 P.M.