

**Marine and Coastal Zone Advocacy Council (MACZAC) / Ke Kahu O Na Kumu Wai**

**MINUTES**

**Friday, October 16, 2015: 1:30 pm – 4:30 pm**  
**Hawaii Convention Center, Room 316C**  
**1801 Kalakaua Ave, Honolulu, HI 96815**

**ATTENDANCE**

- Members Present: Phil Fernandez, Shaylyn Kimura, Donna Brown, Rich Brunner, Dawn Hegger-Nordblom, Kimbal Thompson, Sue Sakai, Jim Coon, Lori Buchanan, Craig Severance
- Members Absent: Rhoda Libre, Robin Kaye
- Office of Planning/Coastal Zone Management (OP/CZM) Staff Present: Leo Asuncion, Justine Nihipali, Lisa Webster
- Others Present: Nancy McPherson (DHHL), Gary Chock (Martin & Chock)

**DISTRIBUTED MATERIAL**

- MACZAC Meeting Agenda for October 16, 2015
- Minutes from June 1, 2015 MACZAC Meeting [Draft]
- MACZAC Hotspots 10/2015
- Building Code Amendments for Coastal Hazards and Climate Change (Existing Requirements and Proposed Changes) October 12, 2015
- Thumbs-Up Award Guidelines
- Thumbs-Up Award Nominations 2015
- "Ala Wai Canal Flood Control: the High Cost of Protecting Waikiki" –  
[<http://www.civilbeat.com/2015/09/ala-wai-canal-flood-control-the-high-cost-of-protecting-waikiki/>]
- "DOH, UH Studies Find Growing Evidence of Cesspool Impacts to Coast, Potable Wells" - Dawson, T. (2015, October 1). DOH, UH Studies Find Growing Evidence of Cesspool Impacts to Coast, Potable Wells. *Environment Hawaii*, p. 10.
- "Hawaiian Electric Proposes Community-Based Renewable Energy Program" –  
[<http://mauinow.com/2015/10/06/hawaiian-electric-proposes-community-based-renewable-energy-program/>]
- "Ige Signs Rules to Create Community-Based Subsistence Fishing Area" -  
[<http://www.civilbeat.com/2015/08/ige-signs-rules-to-create-hawaiis-first-community-based-subsistence-fishing-area/>]
- "Imua Maunaloa: Group Launches New Planning Process to Help Troubled Bay" –  
[<http://www.civilbeat.com/2015/09/imua-maunaloa-group-launches-new-planning-process-to-help-troubled-bay/>]
- "State to Conduct Animal Control Operations on Big Island" –  
[<http://westhawaii.com/news/local-news/state-conduct-animal-control-operations-big-island>]
- "Updated Plan for Lanai Omits Luxury Hotel, Residential Development" –  
[[http://www.bizjournals.com/pacific/blog/morning\\_call/2015/06/updated-plan-for-lanai-omits-luxury-hotel.html](http://www.bizjournals.com/pacific/blog/morning_call/2015/06/updated-plan-for-lanai-omits-luxury-hotel.html)]
- "Vet Center Told 'No Solar'" –  
[<https://themolokaidispatch.com/vet-center-told-no-solar/>]

**I. Call to Order**

MACZAC Chair, Sue Sakai, called the meeting to order at 1:33 pm and welcomed everyone. All those present briefly introduced themselves.

## II. Approval of June 1, 2015 Meeting Minutes

The June 1, 2015 Meeting Minutes were unanimously approved by all members present.

## III. Hawaii Coastal Zone Management (CZM) Program Report

Mr. Leo Asuncion, Office of Planning, provided a verbal CZM report highlighting the following:

### Legislature 2016

- Two Administration Bills that were introduced in the 2015 Legislative Session will be reintroduced by the Office of Planning (OP).
  - One bill is to update the Hawaii State Plan.
  - The other bill aims to define bona fide agricultural activity.
- OP added a CIP request of 1 million dollars to the 2016 OP Budget for Transit-Oriented Development (TOD) planning around Rail stations.
  - The LUD staff has been meeting with other agencies one-on-one to begin the planning process.

### National Estuarine Research Reserve in Hawaii

- The preferred NERRs site is He'eia.
- Draft NEPA EIS and Management Plan will be published in January/February 2016. The 45-day comment period will start once document is published.
- Information on NERRS Designation Process can be found on-line at <http://planning.hawaii.gov/czm/initiatives/nerrs-site-proposal-process/>.

### Climate Change Adaptation

- Inter-agency Climate Adaptation Committee (ICAC) will be holding a symposium in February 2016 at East West Center (DLNR, OP, SOEST). ICAC is a cabinet-level committee, and is mandated by statute. This committee is concentrating on sea level rise and its possible impacts to the State.

### Staff Updates

- Nathalie Morrison, CZM Planner, has left OP to return home to New Hampshire. OP will be recruiting to fill her position in the next few months.

## IV. Reports from MACZAC Working Groups

- Education and Website Working Group
  - Ms. Lisa Webster, MACZAC administrative assistant, recently updated the MACZAC brochure. A table was set up for MACZAC in the exhibitor's hall at HCPO, and several MACZAC members handed out the updated brochures while engaging in public outreach.
  - Ms. Webster suggested that a page be added to the MACZAC website to highlight site visits the group has gone on, incorporating pictures when possible. The group agreed that this was a good idea.
- Ocean Resources Working Group
  - MACZAC member Dr. Craig Severance continues to work on a White Paper, with input from fellow MACZAC members Mr. Phil Fernandez and Mr. Jim Coon. Dr. Severance continues working on the rough draft, with an emphasis on data gaps.
- Shoreline Access Working Group
  - Mr. Fernandez brought up a legal discussion from the HCPO conference discussing public trust lands, and accessing shoreline across private land. There have been cases in multiple states over this issue, and some have been found in favor of the private land owner. There's a request to the Supreme Court to hear it on a constitutional basis. If the Supreme Court finds that states don't have the right to provide access across private land, that finding could affect Hawaii. In that case, in order to provide access, the State would have to condemn and then buy the land to allow for access.
- Legislative Working Group

- Ms. Sakai asked for volunteers to be a part of the Legislative Working Group this session. Jim, Phil, Kimbal and Sue all agreed to do legislative outreach.

#### **V. Discussion Highlighting Critical Marine and Coastal Hotspot Issues, By Island**

- East Hawaii (Big Island) –
  - Dr. Severance noted that he’s been mentoring a Hawaiian graduate student who just finished her Ph.D. She recently got a grant from PICCC to do a research retrospective of longtime surfers, canoeists, fishermen, and other watermen to collect data on knowledge of currents, shorelines, shoreline access, to see if people are beginning to look at impacts of climate change and what those impacts might be.
- West Hawaii (Big Island) –
  - Mr. Coon noted that he has been alerted to a hot spot in Kona around the Manta ray diving area. There are many boats crowding into the same area, people are standing on the coral taking pictures of the Manta rays. Ms. Dawn Hegger- Nordblom, MACZAC member, suggested creating a Marine Conservation District in the area. Mr. Fernandez offered to contact one of the prominent boat operators in the area to ask for suggestions on how to improve this situation.
  - Mr. Fernandez brought up the Iron Man lease of the Kailua Pier. Iron Man pays \$60,000 for 4 days of pier rental. Someone submitted a request to reduce the lease amount to \$30,000, which was approved. Iron Man officials claim they did not request the reduction. Phil stated that it was Ed Underwood who initiated the reduction, because no one else has to pay that kind of fee for use of the pier. Ms. Lori Buchanan, MACZAC member, stated that she attended the meeting where the rental reduction was requested, and it was her impression that Iron Man officials did know about the request before it went in.
- Maui –
  - Mr. Coon read from the MACZAC letter to Chair Case that was just drafted regarding the issues of both day use moorings and ingress/egress buoys at Kaanapali and Molokini. The letter will be sent to Chair Case in the next week.
  - Ms. Sakai stated that the MACZAC letter regarding Honoapiilani Highway just went out. Ms. Donna Brown, MACZAC member, noted that she’s been in contact with Liz Fischer with the Federal Highway Administration to make her aware of the issue as well.
- Oahu –
  - Ms. Buchanan shared that there was a request at the most recent DLNR meeting from the Kahala Hotel & Resort for a permit to explode fireworks. There were three HPU students who came to speak out against the fireworks, because they might be harmful to the resident dolphins. The applicant was not present at the meeting, but Ms. Buchanan stated that it seemed like DLNR was bending over backwards to accommodate the hotel, at the expense of protecting the environment.

#### **VI. Public Input**

No public input was given.

#### **VII. Guest Presentation: Development of Building Code Amendments for the City & County of Honolulu to Account for Existing Coastal Hazards and Future Climatic Risks**

Ms. Sakai briefly introduced Gary Chock, President and Structural Engineer at Martin & Chock. Ms. Sakai noted that Martin & Chock has been retained by the Office of Planning to complete a report looking at existing building codes and regulatory standards, and identifying gaps. Mr. Chock then gave a short presentation.

- Mr. Chock noted that he is very interested in getting input and opinions about which of the potential changes seem promising or justified, and if there are other measures that should be considered.
- Mr. Chock plans to incorporate ideas and changes into his draft report and then present again when the process is further along.
- Trying to reduce vulnerability to natural hazards including long-range effects. We may not be able to reverse whatever climate changes are occurring, but we can adapt to it, and make the transition in an orderly fashion while retaining our resilience.

- Mr. Chock's report includes Objectives 1 and 2 that relates to cataloging what we have that's pertinent, looking at the gaps, and what the potential types of changes might be.
- Still working on the section of Objective 2 that includes a pilot study of developing 500 year inundation maps including climate change effects.
- The report creates a synopsis of each existing regulation, code, or standard that has some relevance, as well as including a draft list of proposed modifications that might take place in the future.
- In the Central Pacific, we're talking about the effects of sea level rise and beach erosion. Beach erosion and sea level rise occur naturally, due to the island subsiding over time. These are geologic processes that can be documented historically. Even climate change skeptics should accept them.
- Ground water rise is a collateral effect of sea level rise. The water table is rising along with sea level. This could lead to more issues with drainage in coastal areas.
- Increased sea surface temperatures may lead to more frequent, higher intensity storms. This would lead to more rainfall and inundation to coastal areas. Increased wild fires and increased energy demands due to warmer temperatures area also documented effects of climate change.
- Land Use Ordinances are very prescriptive. Rules for density, the setbacks, the envelope, including how you lay out parking. Not all that forward looking. Doesn't express any particular philosophy towards natural hazard mitigation. Mr. Chock characterizes this as a gap that could be addressed in terms of a land use ordinance.
- Honolulu Building Code has all the technical requirements for building and design, including what wind speed to use and projected rainfall. This is all based on historical data and current numbers, not looking forward. Mr. Chock proposes using climactic models to predict what might be coming in the future, to include increased hazards.
  - Mr. Fernandez asked if there's an effort to generate a set of numbers for future scenarios that can be agreed upon by state agencies, based on best available data. Mr. Chock stated that he liked that idea, but did not think that such agreed upon guidelines currently exist.
- In cases where you're building a home that's not in a subdivision, a person could use the International Residential Code (IRC), which is a set of non-engineered, prescriptive requirements. This code was largely developed for parts of the mainland where you can build a home without a design professional, just built by contractors. The international code council decided that the threshold wind speed would be 100 mph. State Building Code Council building officials wanted to adopt this code because they saw it as a faster way to approve building permits, because not as many things need to be checked. Unfortunately, the wind speed for most of Hawaii is 105 mph, so basically you break the basis of design to begin with, which is problematic. The county building officials, except on The Big Island, were in favor of adopting this, so it became adopted. City & County of Honolulu will approve buildings that use IRC across the whole island, even if they are built in areas where wind speed exceeds building design thresholds. Mr. Chock sees this as another gap.
- Shoreline Setbacks – Oahu hasn't yet adopted setbacks based on historic rate of erosion, still going by 40 foot setback. The whole idea is to build with sufficient setback so that the structure does not become threatened in the future by receding shoreline.
- SMA Review – Largely an exercise in judgement of the reviewer vs. the entitlements of the property owner. Involves a lot of judgement and site-specific considerations. The SMA zone may need to be adjusted in the future to account for climate change impacts.
- Flood Ordinance – In the 1960's the federal government decided to federalize flood insurance, and they selected the 100-year flood as the selection criteria. Using probability theory, it can be calculated that over a 50-year period, there's a 40% chance of having a 100-year flood. Mr. Chock noted that an engineer will generally design a non-critical structure such as a barn, with no living inhabitants, using a 300-year wind speed. It doesn't make sense to design buildings near the coast using 100-year flood criteria while using 300-year wind speeds. In a situation where there are 300-year wind speeds, there will be greater than 100-year flooding. The forces of the flood waters are much more powerful than the wind, and the structure will be destroyed.
- Seller Disclosures - Create criteria for what constitutes a significant hazard.

- State Building Code is meant to be the overarching building code that drives what the counties adopt. This statute came about in 2007. We are behind the times at both the State and county levels because of both the speed of bureaucracies and the level of funding. State Building Code Council has been without funding since 2009, surviving on volunteer efforts. The gap here is sustainment. All building codes are required to be consistent with the State Building Code, so it needs to be regularly updated. Some State offices are more engaged in the process than others.
- Public Utilities Commission – For a long time electrical power poles were designed in accordance with a standard that was adopted in the 1960’s. It created a standard which provided for a 60 mph wind speed. In 2007 the PUC decided to update that standard, and adopted a modern code, which applies to new construction only. This is another gap. Available power is the key to recovery. If there’s no power, there’s no water.
- Army Corps of Engineers is forward leaning in respect to sea level rise. They provide methodologies for dealing with current rate of sea level rise, and provide for two possible scenarios of future sea level rise, admitting that there’s uncertainty involved.
- Electrical Code – Might want to put transformers somewhere besides the basement, in case of flooding.
- Looking at projecting what future coastal inundation zones may look like, using simulated storms that are ceded from a climate environment of the future. Working with a simulated future data set that has a large number of trials to comprise 50 trials of 20-year periods (1,000 years of simulation) reflective of a future climate state to look at the effects on flooding, hurricanes, and rainfall. Rainfall intensity has a lot of effects on infrastructure: Is there proper drainage? Is the roof adequately designed? Is there flooding? Will there be discharges of raw sewage into the ocean?
- Next step: Show whether there’s an expanded flood zone that results from the future climate scenarios study.
- For codes and standards we’re talking about accommodative measures for the most part. There are various responses to climate change - accommodation, protection, retreat, and risk transfer.
- Apply findings not only to buildings, but more importantly, to infrastructure, transportation, water resources, especially critical infrastructure.
- Current design protocols do not account for climate change adaptation. Moving to a forward looking design approach is recommended. With a forward looking approach, everyone doing a project will essentially be assisting the community in climate change adaptation. Changes in codes and regulations will lead to economic investment in resilience for climate change.
- Part of the pilot study that Martin & Chock are working on includes a cost/benefit analysis for the study area to determine if there is additional flooding hazard, which structures are affected, and what would be the costs and benefits of replacing vs. doing nothing.
- The LUO could include requirements to evaluate 75 years of relative sea level rise, and reference one of the Army Corps of Engineers methods so that everyone does it consistently.
- In the Honolulu Building Code, incorporating 75 years of sea level rise and other projected effects of climate change might result in changes in the rainfall intensity maps, wind speed maps, flood maps to account for expected hazards in the future.
- These proposed changes would apply to infrastructure with a long lifespan, and not necessarily to single-family homes. Long lifespan structures include freeways, hospitals, sewage treatment plants, and storm drains (with respect to carrying capacity).
- Shoreline Setbacks – at least go to historic shoreline erosion rates, to begin with.
- SMA maps could be adjusted to take all these changes into account.
- Flood Ordinance – for resilience need to move to a different return period on the flood. Go to a 500-year event for critical infrastructure.
- Certified Shoreline – maybe look at where you think the shoreline will be in the future, rather than where it is today.
- Disclosures – might want them to apply to vacant lots as well as developed lots. For subdivisions – could create something far more specific about the level of severity that warrants disclosure.

- Make changes to the statute of State Building Code to force it to run faster. Apply the same kinds of deadlines to the State that are applied to the counties with respect to the speed at which new building codes are adopted.
- PUC could issue new orders that take into account actual wind speeds that would occur due to topography.
- For critical infrastructure, using the Army Corps of Engineers technical guidelines for determining relative sea level rise, to give a consistent method for its determination.
- Energy Conservation Code – adopt updated weather data which takes into account climate change.
- Fire Code – Hawaii is on a trend of lower rainfall totals per year in the past two decades. Drought will likely continue to be a threat. Create maps for propensity for wildfire burn, which could lead to buffer zones around areas of development in at-risk areas.

Ms. Sakai requested that all feedback be submitted to Mr. Chock by Friday, October 23.

#### **VIII. Nominations for 2015 Thumbs-Up Award**

- Two handouts were provided: Thumbs-Up Award Guidelines and Thumbs-Up Award Nominations 2015.
- Ms. Brown nominated two additional groups: West Maui Ridge to Reef and Eyes of the Reef.
- Ms. Sakai noted that MACZAC members will vote to decide the winner of the 2015 Thumbs-Up Award at the next MACZAC meeting, and suggested using the same voting procedure as last year.
- If anyone would like to add a nomination, or withdraw an existing nomination, please send an email to Ms. Webster.

#### **IX. New Business**

- The next MACZAC Quarterly Meeting will be held Wednesday, February 10, 2016. Ms. Sakai suggested having the meeting in the evening, starting around 4 pm, possibly at the Waikiki Library. There will be a Hawaii Sea Level Rise Vulnerability and Adaptation Workshop on February 11, 2016, at East West Center at University of Hawaii at Manoa, which MACZAC members are encouraged to attend.
- The group agreed that for the MACZAC terms that are ending in 2015 there will be an open call for applications.
- Agenda item for next meeting: Ms. Sakai would like MACZAC to elect a new Chair.

#### **X. Adjournment**

MACZAC Chair, Sue Sakai, adjourned the meeting at 4:39 pm.