

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

MINUTES

Monday, October 1, 2018: 9:00 am – 12:00 pm
Office of Planning Conference Room
235 South Beretania Street, 6th Floor, Honolulu, Hawai‘i 96813

ATTENDANCE

- Members Present: Jim Coon, Rich Brunner, Nick Palumbo, Kimbal Thompson, Robert Nishimoto, Donna Brown, Sue Sakai, Steve Mechler
- Members Absent: Phil Fernandez
- Office of Planning/Coastal Zone Management (OP/CZM) Staff Present: Leo Asuncion (OP), Justine Nihipali (OP/CZM), Melanie Lander (OP/CZM), Lisa Webster (OP/CZM)
- Others Present: Zachary Yamada (Western Pacific Regional Fishery Management Council)

DISTRIBUTED MATERIAL

- MACZAC Meeting Agenda for October 1, 2018
- Minutes from May 10, 2018 MACZAC Meeting [Draft]
- Legislative Working Group Process Handout
- MACZAC Hotspots 10/2018
- Articles:
 - “Hurricane Lane Approaches Hawaii, Threatens Energy Infrastructure”
[<https://www.eia.gov/todayinenergy/detail.php?id=36972>]
 - “Maui Firefighters Battled Three Blazes”
[<http://www.mauinews.com/uncategorized/2018/08/brush-fire-threatens-lahaina-town/>]
 - “Planning Panel Advances Special Fund for Shoreline Issues”
[<http://www.mauinews.com/news/local-news/2018/09/planning-panel-advances-special-fund-for-shoreline-issues/>]
 - “Shoreline Setback Rules Draw ‘Line in the Sand’”
[<http://www.mauinews.com/news/local-news/2018/09/shoreline-setback-rules-draw-line-in-the-sand/>]
 - “Visionaries with the Courage to Change the World”
[<http://albertconsulting.com/new-york-times-sunday-special-section-visionaries-courage-change-world/>]

I. Call to Order

MACZAC Chair, Kimbal Thompson, called the meeting to order at 9:04 am welcomed everyone, and introduced new MACZAC member, Steve Mechler. Everyone in attendance introduced themselves to Mr. Mechler.

II. Approval of May 10, 2018 Meeting Minutes

The May 10, 2018 Meeting Minutes were unanimously approved by all members present.

III. Hawai‘i Coastal Zone Management (CZM) Program Report

Justine Nihipali, CZM Manager, provided a CZM Program Report highlighting the following:

Hawai‘i CZM Program

The following is a status summary of the Hawai‘i CZM Program and its initiatives as of date:

- 10 of 11 (2 are 0.5 FTE) positions staffed (½ time Project Analyst)
 - CZM currently has one Planner V vacancy and is actively recruiting.
- 2 student help positions, 1 intern position (to be recruited)
 - 2 student helpers were recruited. One graduated in May, another moved to a new opportunity in August. Both positions are currently vacant.
 - 1 intern has been recruited and is projected to start on October 16. Primary responsibilities will be to support the ORMP Update.
- CZM Website updated periodically (<http://planning.hawaii.gov/czm/>). Working on improving communications for consistency and currency.

Section 312 Evaluation

- The Hawai‘i CZM Program underwent its Section 312 Evaluation from August 28-30, 2018. The NOAA public meeting was conducted during the evening of August 29, 2018. Two members of the public attended and provided testimony. Draft findings were shared with the CZM Program, as well as with DBEDT and OP Leadership in 2 separate meetings.
- CZM Staff Contact is Debra Mendes

Routine Program Changes

- Draft updates to the CZM Program policies are compiled. Manager will be working with staff to review for submission to NOAA-OCM.
- CZM Staff Contact is Shichao Li

Ocean Resources Management Plan (ORMP)

- Implementation underway with 2 Action Teams established (Appropriate Coastal Development/Coastal Hazards, and Coral Reef)
- Appropriate Coastal Development/Coastal Hazards ACT lead by OP is exploring the implications and feasibility of managed retreat. Consultant is has completed its tasks. OP conducted a review and edits. Final report hoping to release in November 2018.
- Updated ORMP available on-line at (http://files.hawaii.gov/dbedt/op/czm/ormp/ormp_update_reports/final_ormp_2013.pdf)
- CZM Staff contact is Melanie Lander

Chair Thompson asked Ms. Nihipali if the ORMP update might include a name change, to include ‘coastal’ in the plan name. Ms. Nihipali stated that a name change was being considered.

Community Stewardship Directory

- 2018 Community Stewardship Directory has been completed.
- CZM Staff contact is Melanie Lander

Coastal Non-Point Pollution Control Program (CNPCP)

- Three remaining Management Measures require approval by NOAA/EPA: (1) Roads/Bridges/Highways; (2) On-Site Disposal Systems (OSDS); and (3) BMP Monitoring
- Working with DOT, DOH, Counties (planning departments, public works departments) on completing the above Management Measures
- Information on the CNPCP can be found on-line at (<http://planning.hawaii.gov/czm/initiatives/coastal-nonpoint-pollution-control-program/>)
- CZM Staff contact is Justine Nihipali

Climate Change Adaptation

- Office of Planning Director and CZM Program Manager serve as Commissioners on the Climate Change Mitigation and Adaptation Commission
- Most recent meeting held was on September 4, 2018. Per the Climate Commission Coordinator, the outcomes and decisions are below:
 1. The Commission, following up on its adoption of the State’s Sea Level Rise report, took assertive steps to support the **implementation of sea level rise adaptation actions**, outlined in the press release below. The measure passed with almost unanimous support.
 2. The Commission also adopted a modified **mission statement**:

“Hawaii’s Climate Commission recognizes the urgency of climate threats and the need to act quickly. It promotes ambitious, climate-neutral, culturally responsive strategies for climate change adaptation and mitigation in a manner that is Clean, Equitable & Resilient.”
 3. The recommended strategies or steps agreed upon during the meeting by the Climate Commission include:
 - Support legislation for disclosure for private property and public offerings located in areas with potential exposure to sea level rise.
 - Request all new development, redevelopment and modifications be directed away from beach areas.
 - Urge counties to incorporate the 3.2 ft. sea level rise exposure area (SLR-XA) into their general and development plans.
 - Encourage agencies and non-governmental utility providers to identify and prioritize assets within the 3.2 ft SLR-XA or more as described in the State’s Sea Level Rise report, identify adaptation measures, and to provide a status update on this activity annually to the Climate Commission.
 - Support legislation that funds State programs to meet mitigation goals, and to bring resources to assist in planning and implementation for sea level rise and other climate related impacts.
 4. For **mitigation actions** connected to ground transportation, the Commission heard the findings of the Permitted Interaction Group. Discussion revolved around the following issues:
 - i. Carbon pricing: Possible amendment of the existing barrel tax to reflect an economy-wide price on carbon, and determine the rate;
 - ii. PSA Campaign: to develop a clear scope and budget that will enable behavior change to support clean transportation/climate change issues;
 - iii. Parking payouts: Investigate parking payout policy options for Hawai‘i, and scope of such a study;
 - iv. Carshare/rideshare programs: provide details for further action;
 - v. EV infrastructure: should the State play a role in developing this infrastructure, and if so, the nature of that role; and
 - vi. Closing loopholes in existing legislation: bring specific examples on which to take action.
 5. The **next meeting** is on November 27th. The Climate Commission Coordinator is planning a climate change conference —January 14th.
- CZM Staff contact is Sandy Ma

Coastal Hazards

- There were significant delays in contracting for the Section 309 Coastal Hazards Strategy for the Probabilistic Tsunami Design Zone Mapping. We are in the contract execution stage for the project and expect to issue the Notice to Proceed to the Contractor before month-end.
- Updating the Hawai‘i Historical Shoreline Database: Coastal erosion mapping for Kaua‘i has been completed and presented to Kaua‘i County Planning Department; and mapping for O‘ahu is underway.
- Continue to partner with State Emergency Management Agency (HI-EMA) for the Multi-Hazard Mitigation Plan Update
- Continue with training of architects/engineers/planners on code requirements for specific coastal hazards by request from Partners
- CZM Staff contact is Sandy Ma

CRest Project

- OP-CZM Program received funding from the Coastal Resilience Networks Grant Program to examine existing county building codes and how such codes may incorporate climate change adaptation measures
- Primarily working with the City and County of Honolulu, Department of Planning and Permitting on the project.
- Project will run, and final report to be published, no later than October 2018.
- CZM Staff contact is Sandy Ma

County CZM Projects

- Maui County was provided resources to update its Public Access database. Work has been completed and final editorial steps are expected prior to public launch.

Other Initiatives

- Greenhouse Gas Sequestration Task Force
- South Shore Promenade – Proof of Concept Study
- CZM Program is involved with a number of external groups and activities:
 - Coral Reef Initiative Working Group (DLNR-DAR)
 - Hawaiian Islands Humpback Whale National Marine Sanctuary Advisory Council
 - Hawai‘i Invasive Species Council (HISC) and HISC Resource Committee
 - State Natural Area Reserve System (NARS)
 - Aloha+ Challenge
 - Coastal States Organization
- Continue to review environmental assessments/environmental impact statements to ensure CZM objectives, policies, and initiatives are considered

IV. Guest Presentation: Overview of the 30x30 Initiative

Anne Chung, Hawai‘i Coral Reef Initiative, University of Hawai‘i / Division of Aquatic Resources (DAR)

Ms. Anne Chung provided the group with a brief overview of the 30x30 Initiative. It’s a work in progress, with a report due at the end of 2018. Ms. Chung noted that Hawai‘i has a unique near-shore ecosystem, including invertebrates, fish, mammals, and corals, with 25% of native species found nowhere else on earth. Many of Hawaii’s residents are dependent on this ecosystem for livelihood, food, and recreation. The 30x30 Initiative considers not just this generation, but also how to preserve this unique ecosystem for future generations.

The consecutive coral bleaching events of 2014 and 2015 were a wakeup call, bringing awareness to both local and global stressors that are affecting the near-shore environment. The coral bleaching events likely played a part in leading to the creation of a number of sustainability initiatives. One of these initiatives included Mālama Honua, Promise to Pae‘Āina, which followed Hōkūlea’s journey around the world, and included a series of commitments, including one for the marine environment. Another initiative is the Aloha + Challenge, which takes an interdisciplinary approach across different components in Hawai‘i, and includes the Aloha + Dashboard, which tracks different metrics over time. Most recently, at the 2016 IUCN World Conservation Congress, Governor Ige announced the Sustainable Hawai‘i Initiative, also interdisciplinary, which introduced specific sustainability metrics for local food production, a biosecurity plan, water shed protection, renewable energy, and marine management, which is the 30x30 Initiative. The 30x30 Initiative is a commitment to have 30% of nearshore marine areas effectively managed by 2030, and to insure a healthy nearshore ecosystem and fisheries that sustain the people and economy of Hawai‘i.

The unveiling of the 30x30 Initiative led to several questions: What does DAR want to accomplish with this initiative? What is effective management? What are nearshore waters? How are we going to get to effective management of 30% of nearshore waters? Answering these questions helped DAR carve out a process for how to accomplish this goal. This initiative builds on things that DAR has been working on for a long time, including monitoring, restoration, marine managed areas, and fisheries rules, and looks critically at how to improve these ongoing actions into the future.

The 30x30 Initiative worked to develop objectives through a multi-agency steering committee. The steering committee began meeting in 2016, and included representatives from OP, DLNR-DAR, Castle Foundation, Western Pacific Fishery Management Council, HFACT, OHA, and Nature Conservancy, as well as technical advisors. The steering committee derived five objectives: maintain and rebuild fisheries, sustain cultural heritage, maintain the multiple social and economic benefits of nearshore environments, increase reef resilience, and protect and restore natural diversity.

The steering committee determined that the tools for effective management include improvements to place-based management (marine managed areas), statewide fisheries rules (size and bag limits, gear restrictions), enforcement and outreach (DLNR - DOCARE), and monitoring (better data collection and analysis). It was also important to the steering committee that the 30x30 Initiative incorporate the idea of sustainability into its definition of effective management. Sustainability was defined using the United Nations definition; sustainability is a balance between economy, society, ecology, and governance. The final guiding document, the *Roadmap to 30x30*, is expected to be completed by early 2019.

The *Roadmap to 30x30* will attempt to answer the following questions: Where are we now? What is the destination? How will we get there (specific actions and milestones)? The document will also include guidance on implementation (funding and capacity required for each action and milestone).

This is a work in progress. The current focus is on collecting baseline data. There will be opportunities in 2019 for public engagement, especially to determine where place-based management can be improved. In 2020, lining up with some international sustainability deadlines, there will be a focus on preparing county-level action plans.

Mr. Mechler, MACZAC member, asked if there would be feedback loops included in the process to avoid going too far down unproductive pathways. Ms. Chung stated that there are mechanisms built in that should address this. One of these mechanisms is the monitoring component, which will look for ecological indicators, as well as social, economic and governance indicators that show that management is working.

Mr. Jim Coon, MACZAC member, asked if there would be a focus on the ocean economy of Hawai‘i, especially ocean tourism, which includes surf schools, charter boats, etc. Mr. Coon stated that ocean tourism is terribly unrecognized in Hawaii’s economic system. In the 1980s, revenue from ocean tourism surpassed all agricultural revenue for the state. The state has a Department of Agriculture, and there used to be a Department that focused on ocean economy, headed by Dr. Craig McDonald. Mr. Coon noted that the state tends to overlook this sustainable, vibrant, highly regulated sector of our economy. Ocean tourism employs a lot of people and has been the primary steward of the environment. Those involved in the ocean tourism industry have provided proactive legislation, including pushing for installation of day-use moorings, and for bans on harvesting of stony corals. Mr. Coon stated he would be happy to provide more information through the stakeholder engagement process. Ms. Chung noted that some of the economic indicators that might be tracked through the 30x30 Initiative include revenue and jobs from ocean tourism, and that the Initiative would likely point out the contribution and important role that this sector plays.

Dr. Bob Nishimoto, MACZAC member, asked Ms. Chung if her position was funded by the Hawai‘i Coral Reef Initiative (HCRI), and she responded that HCRI provides funding for her position through various funding sources. Dr. Nishimoto noted that HCRI focuses on the concept of ‘ridge to reef’, but that DOFAW only manages the pristine forests of the islands, and DAR only focuses on the water, so there is missing component, not being managed between the two. Dr. Nishimoto asked if Ms. Chung will try to bring the two circles of management closer together. Ms. Chung noted that the 30x30 Watershed focus area will likely work on this issue, and that there are place-based management projects in West Maui and West Hawai‘i that focus on the entire watershed.

Ms. Nihipali noted that management of the area between the ridge and the reef has also come up in ORMP working group meetings, and OP/CZM is struggling with how to address this issue. Should there be an action team? Who would be the lead? Who would be the stakeholders? What can we do to affect change downstream? This issue will likely be addressed in the next update of the ORMP.

V. **Guest Presentation: Overview of Coastal Erosion in Hawai‘i**

Dr. Chip Fletcher, School of Ocean and Earth Science and Technology, University of Hawai‘i

Dr. Chip Fletcher, professor and administrator at University of Hawai‘i, provided the group with an overview of coastal erosion in Hawai‘i. Sea level is rising around the world, which is the single biggest thing driving coastal behavior. Sea level rise global average is about one foot per century, or 3.3 mm/year. This data has been collected since 1992, with a set of satellite missions. These satellites last anywhere from 5 to 10 years each. NASA and the European Space Agency have been jointly funding a continuation of the mission. The satellites collect data of the distance to the ocean surface from their orbit. That data is ground-truthed using a set of tide stations around the world that have GPS antenna and measure the changing water levels. Together, these sets of data produce an incredibly precise time series of changes in the ocean surface. Once every 10 days the entire ocean surface is mapped in a process called satellite altimetry. Satellite Altimetry involves satellites shooting a microwave radiometer down to the ocean surface, which is reflected back up.

The scientific community now has almost 25 years of records and can begin to look at trends. In a map of the ocean surface levels spanning 1992-2018 showing reds (sea level rise) at rates of up to a meter per century or 10 mm per year, and blues (sea level fall). In Hawai‘i, we’re especially concerned with the large red area along the Eastern Pacific, known as the west Pacific warm pool. This is a rapidly rising body of warm water. The ocean is not like a calm bathtub, there are areas that are pushed by the winds, there are gravitational forces. The Western Pacific Ocean has shown rapid rates of sea level rise up until 2011, when an El Niño-like phenomenon caused a shift over to the Eastern Pacific. Over the last 4 or 5 years, waters began to rapidly rise off of California, and Micronesia and Palau are now seeing sea levels fall.

We also have the El Niño-Southern Oscillation (ENSO) process, made up of El Niño and La Niña. La Niña includes strong trade winds, which blow water to the west, generating a large west Pacific warm pool. This is warm water that evaporates readily, and can lead to strong monsoons, flooding, and droughts, with cold, nutrient-rich water coming up, leading to good fishing. El Niño is the opposite, when the trade winds fail. Wind bursts come out of the Himalayas and move from west to east. This leads to droughts in Asia, often causing global rice and palm oil industries to fail, leading to spikes in food prices around the world. Hawai‘i experiences intense rain fall and very hot days. This weather fuels tropical cyclone generation, and in 2015, which was as super El Niño, we had a record number of tropical cyclones – 15. The previous record was 11 tropical cyclones. In La Niña years, heat is removed from the atmosphere and absorbed by the ocean, and so atmospheric temperatures tend to be low. In El Niño years, heat is released into the atmosphere, leading to hotter than normal years, often with record-setting temperatures. The Intergovernmental Panel on Climate Change (IPCC) data analysis demonstrates that the rate of sea level rise is accelerating and will double from the current 1 ft/century to about 2 ft/century by the year 2100. The IPCC projections do not account for rapid melt of ice in Antarctica and Greenland, so SLR may be even greater than 2 ft/century by 2100.

Hawaii’s coastline is dominated by wave variability. In winter we get a large swell from the north, in the summer we get a large swell from the south. We have perpetual trade winds and their swells. Our beaches are constantly experiencing variable wave energy. We also have highest tides, called spring tides, every 4 weeks, strongest in April, May, June, July, and August, especially around the summer solstice, June 21st. Those tides will send waves higher up on the beach and elicit greater response from the beach. We have shallow reefs and it is fairly deep offshore of the reefs. Waves would normally refract strongly and approach the shoreline straight-on, but because our reefs are much shorter than a continental shelf, waves approach at an angle. This drives longshore currents that move sand along the shore, in a sand-sharing system. We also have wave-generated currents, where the inertia and excess energy associated with large waves tends to push the sea level up. This is called setup. We get higher high tides when we have a swell event. That leads to downwelling in between sets of waves, creating a current that can carry sand with it from the beach down to the sea floor on the floor of the surf zone. Because we have reefs, rip currents are generally fixed in channels in the reef. There is net sea level rise in Hawai‘i, at about half the rate of the global mean sea level rise due to variability in the Pacific Ocean. The highest water levels ever measured in the Honolulu tide station were measured during the 2017 king tides.

‘Ehukai Beach on the North Shore of O‘ahu experienced dramatic erosion in early September 2018. This occurred before the arrival of the first winter swell and was likely due to the swells caused by passing tropical cyclones (most notably Hurricane Lane). Erosion is approaching within a few feet of some these homes and was unexpected for this time of year. This issue falls within the kuleana of DLNR, and within two weeks OCCL allowed homeowners to put geotextile tarps, as well as ‘burritos’ – textile tarps wrapped around sand, in front of these homes. The governor and the mayor met to discuss the issue, and came to an agreement that they will not allow solid rock walls to go in. The temporary protection is expected to last for 3 years. Dr. Fletcher noted that this is the first time he can remember the city and the state being in agreement on how to manage erosion.

When you armor a shoreline, you pass the erosion downstream, which is called flanking. If you armor your property, you’re likely to cause accelerated erosion to your neighbor. These geotextile tarps will likely cause accelerated erosion to neighboring properties. The waves are trying to get at the sand. As sea level rises, beaches, defined as being at the edge of the ocean, will have to migrate landward. Our beaches accrete and erode throughout the year, but there is an overall trend toward erosion. Dr. Fletcher stated that he would be surprised if the majority of the geotextile cloth lasts through the winter.

A photo from 3 years ago, showing dramatic erosion at Sunset Beach, caused by a swell event that came from due north, rather than the usual due northwest, pushed sand away from Sunset Beach and Rocky Point and towards 'Ehukai Beach, and now we have 'Ehukai Beach without sand. The houses at Sunset Beach survived the erosion event.

Shoreline setbacks are different on each island. The current setback on O'ahu is 40 feet, and 60 feet for new developments. On Maui, the setback is 50 x annual rate of erosion. On Kauai, the setback is 70 x annual rate of erosion, and if you have a shallow lot depth (100 feet, 200 feet), then there is a percentage setback based on lot depth. Sea level rise is anticipated to be about 3 feet by the end of the century, and a basic engineering analysis suggests that there will be 200 feet of recession. The homes are in the way if we want the beach to stay.

The Sea Level Rise Viewer, available through PacIOOS, is modeling done in association with the state Sea Level Rise Report. Looking at 3 feet of sea level rise in Waikiki, it is clear that there will be a large amount of permanent land loss due to annual seasonal wave runup. Dr. Fletcher's group has done additional modeling to look at the effects of 1 foot of sea level rise on the North Shore. Currently, 18 homes from Sunset Beach, along 'Ehukai Beach, and on to Pūpūkea and Ke Iki are armored with seawalls. There is also some armoring where there's a bridge or where the road has been threatened by shoreline change, with about 10% of the shoreline currently armored. With 1 foot of sea level rise, 109 homes and 60% of the shoreline will need to be armored to preserve current structures. If we award seawalls to all of these homes, we are looking at the end of this stretch of sand by mid-century. If we don't award seawalls, we have to figure out how to handle this community. A consultant's report will be coming out in the near future, likely titled 'Managed Retreat'. Sea level rise is not just a problem for the future, it is currently playing out on our beaches.

The majority of the road in this stretch of the North Shore sits on sand. Mauka of the road, it starts to dip down into wetlands soils. A sand dune is a critical part of a beach. Like a bank account, waves make frequent withdrawals and deposits. When withdrawals exceed the balance of the bank account, the sand dunes are like a savings account. Maui defined what a sand dune is 10 years ago, and is the only county considering sand dunes in its policies. We have landscaped our dunes, and put soil on them, leading to beaches being sand-starved. In Kā'anapali, about 10 year ago, during a warm summer when ocean levels were 6-8 inches above present, erosion caused the beach to collapse, cutting all the way back into the landscaping. Our response, historically, has always been to armor the coast. 70% of beaches on Kaua'i, Maui and O'ahu are in a state of chronic erosion. 9% of these beaches, or 14 miles, are completely lost to armoring. The average rate of shoreline change is about a ½ foot/century. As sea level rises, the beach will migrate landward. If we armor the entire shoreline, we will end up with beach loss.

Bellows Air Field stone revetment led to loss of sand moving into Lanikai, leading to one house after another in Lanikai putting in seawalls, leading to flanking, leading to more seawalls. This process took place over a 20- to 30-year period, leaving only a small beach in Lanikai. We have a number of beachless beachparks, like Swanzy Beach Park in Ka'a'awa. Sandbags were installed to protect a field which led to loss of the beach.

Waikīkī is an engineered beach. As part of maintaining it, in 2012, sand was dredged and pumped onshore. The sand was dewatered and distributed across the shoreline by trucks. Silt was a negative side effect of the effort and may have been caused by grains of sand being broken in the dredging and pumping process. The beach nourishment in Waikiki cost about \$4.5M. It is important to keep in mind that when you nourish a beach, you can expect to lose half of it in the first couple of years as it equilibrates to the conditions.

There is a large beach nourishment effort planned for Kā'anapali. Using lessons learned from the Waikiki beach nourishment effort, changes are being made to the process. An environmental clamshell will be used to collect sand, sand will be placed on the beach by conveyor belt rather than hydraulic slurry, and they will avoid driving on the beach to distribute the sand.

Beach nourishment makes sense in terms of cost/benefit in places that are heavily used by tourists and have resorts. There is great skepticism around beach nourishment on the North Shore, where the wave energy is so great. Stabilizing a beach is a zero-sum game. If one beach is stabilized, it will rob sand from another beach. In order to stabilize a beach with T-head groins, you need to install the groins and also nourish the beach with sand, which will need to be replenished regularly.

Reports from MACZAC Working Groups

- Legislative Working Group

Ms. Nihipali stated that it would be very helpful if MACZAC could advocate for an accountant for the Office of Planning, which is work currently being done by a CZM Planner, Susan Feeney. 2019 Legislative Working Group will include Chair Thompson, Mr. Coon, Ms. Sakai, and Mr. Mechler. MACZAC members agreed to follow the same Legislative Working Group guidelines used for the 2018 legislative session.

Mr. Leo Asuncion, Director, Office of Planning, will reach out to the Legislative Working Group in January to let the group know how they can best advocate for CZM in the upcoming legislative session.

- Executive Working Group
No Report.

- Retreat Working Group
No Report.

VI. Discussion Highlighting Critical Marine and Coastal Hotspot Issues, By Island

- Maui –Ms. Donna Brown, MACZAC member, discussed the following Maui hotspot:
 - Coastal erosion is causing the trees to fall into the ocean along Honoapi'ilani Highway, and a high tide causes the road to be overtopped by sea water. Ms. Brown stated that DOT won't attempt the repair until they can afford to replace it with a 4-lane highway, including over the Pali, which will cause billions of dollars.
- Maui –Mr. Rich Brunner, MACZAC member, discussed the following Maui hotspot:
 - During the Lahaina fire (August 24, 2018), it was unclear if all Maui-based fire-fighting units were able to get into Lahaina to fight the fire. Lack of access due to chronic traffic jams, water on the road, or the road being washed away could lead to disastrous outcomes. Mr. Coon, added that with the cane fields closing, there will be thousands of acres of weeds and haole koa, there will likely be increased wildland fires. Mr. Coon mentioned that there was a fire on Lanai several years ago that threatened the hotel, and Mr. Coon was planning to use his boats to evacuate the guests and workers.
- Maui –Mr. Jim Coon, MACZAC member, discussed the following Maui hotspot:
 - Although the charter boat industry makes great efforts to anchor only in sand, on big swell or high wind days there is only one stretch that can be utilized for snorkeling, the area from the Pali to Olowalu. That area has a shortage of moorings. Mr. Coon was involved with the Ocean Recreation Council of Hawai'i (TORCH), which was the group that pioneered the day-use moorings program in the 1980s. Only three day-use moorings were installed from the Pali to Olowalu, and there is a great need for more.

- Lāna‘i – Mr. Nick Palumbo, MACZAC member, discussed the following East Lāna‘i hotspot:
 - All the debris from the floods on Maui washed onto the shore on the east side of Lāna‘i. Mr. Palumbo found a kiteboard, a surfboard, a staircase, and posts from people’s houses sitting on the beach.

VII. Public Input

No public input was given.

VIII. New Business

- Agenda to include discussion of retreat outcomes and next steps.
- MACZAC Legislative Working Group will visit the legislature following the meeting.
- The next MACZAC Quarterly Meeting will be held February 1, 2019 at 9 am.

IX. Adjournment

Chair Thompson adjourned the meeting at 12:31 pm.