



**Hawai'i Ocean Resources Management Plan  
Council on Ocean Resources**

**Meeting Summary**

January 7, 2022 | 10:00 am – 12:00 pm  
Zoom

**Council Members Present:** (9 individuals)

Scott Glenn for Mike McCartney (*Department of Business, Economic Development & Tourism*)  
Melissa Iwamoto (*University of Hawaii (UH) – Pacific Island Ocean Observing System (PaCIOOS)*)  
Todd Low for Phyllis Shimabukuro-Geiser (*Department of Agriculture*)  
Michele McLean (*County of Maui, Department of Planning*)  
Luke Meyers (*Department of Defense, Hawaii Emergency Management Agency*)  
Scott Miyashiro for Kathleen Ho (*Department of Health*)  
Brian Neilson for Suzanne Case (*Department of Land and Natural Resources (DLNR)*)  
Pradip Pant for Jade Butay (*Department of Transportation*)  
April Surprenant for Zendo Kern (*County of Hawaii, Planning Department*)  
Dean Uchida (*City and County of Honolulu, Department of Planning and Permitting*)

**Partners Present:** (11 individuals)

James Buika (*County of Maui, Department of Planning*)  
Michael Cain (*DLNR - Office of Conservation and Coastal Lands*)  
Mike Foley (*Oceanit*)  
Darcey Iwashita (*Department of Health – Clean Water Branch*)  
Melanie Lander (*UH Sea Grant College Program*)  
Darren Lerner (*UH Sea Grant College Program*)  
Ed Sniffen (*Department of Transportation – Hwys Division*)  
Christopher Sabine (*UH – School of Ocean and Earth Science and Technology*)  
Hudson Slay (*Environmental Protection Agency*)  
Kevin Sullivan (*County of Hawaii, Planning Department*)

**Office of Planning & Sustainable Development (OPSD) Coastal Zone Management Program (CZM)**

**Staff and Others Present:** (12 individuals)

Mary Alice Evans (*OPSD*)  
Keelan Barcina (*OPSD - CZM*)  
Sarah Chang (*OPSD - CZM*)  
Susan Feeney (*OPSD - CZM*)  
Phil Fernandez (*Marine and Coastal Zone Advocacy Council*)  
Josh Hekeka (*OPSD - CZM*)  
Brittaney Key (*OPSD - CZM*)  
Shichao Li (*OPSD - CZM*)  
Debra Mendes (*OPSD - CZM*)  
Justine Nihipali (*OPSD - CZM*)

### **I. Welcome and Introductions**

*Mary Alice Evans, Director, OPSD*

- Ms. Evans called the meeting to order and welcomed the attendees, who briefly introduced themselves and the agency or organization they represented.

### **II. Coastal Zone Management Program (CZM) General Updates**

*Justine Nihipali, Program Manager, OPSD-CZM*

- Ms. Nihipali provided updates on the CZM program since the last Council meeting in July 2021. The CZM program has developed new resources to communicate the “network” structure of the coastal zone management program, including:
  - o **Authorities Matrix** ([link](#)) which lays out each CZM objective and policy (as stated in HRS Chapter 205A) and identifies the agencies and their respective regulatory actions that uphold each of these objectives
  - o **“What is CZM?” animated video** ([link](#)) which provides a general overview of the CZM program in Hawaii. It is targeted for a broad audience and will be used as an outreach tool.

### **III. ORMP Focus Area Implementation Status**

*CZM staff & partners*

- *OPSD-CZM staff and partners presented brief updates on Focus Area implementation projects and their status*
  - a. **Focus Area #1 Development and Coastal Hazards; Presented by Sarah Chang & Yusraa Tadj, OPSD-CZM**
- Ms. Nihipali introduced this Focus Area by describing the overarching direction of the CZM’s work in this area by identifying short-, mid- and long-term strategies being addressed:
  - o Short-term: assessing the adaptation of structural assets and shifting new development away from the shoreline;
  - o Mid-term: scoping alternatives to parcel-by-parcel management to integrate more holistic perspectives;
  - o Long-term: continuing exploration of managed retreat for integration into long-range planning
- Ms. Chang presented the completed activities and initial findings as described in the [Act 178 2021 Annual Report](#) ([link](#))
  - o Act 178, SLH 2021 requires OPSD in coordination with state agencies with facilities management responsibilities to identify state facilities vulnerable to sea level rise (SLR)
  - o Initiative aligns closely with the ORMP and is an action item identified in Focus Area 1

- The main activities completed in the first phase of the Act 178 initiative were:
    1. An inventory of state-managed facilities
      - Collaborated with partner agencies to create an updated list of state-managed facilities
      - CZM staff manually verified facility locations to ensure accurate coordinates and mapping
    2. SLR Exposure Assessment
      - 200 ft buffers were created around each facility location to account for impacts on facility accessibility and building footprint
      - Various SLR projection scenarios were overlaid on top of facility buffers
        - SLR-XA scenarios: 0.5 ft, 1.1 ft 2.0 ft, 3.2 ft
        - NOAA 6ft projection scenario
      - Any facility buffer that intersected with a SLR projection was considered “vulnerable”
  - The main findings of the exposure assessment include:
    - All islands, except Lanai, have vulnerable facilities in all scenarios
    - Statewide, there is an exponential increase in the number of vulnerable facilities as sea level rise impacts increase
    - DOE, DOT and DLNR are the most impacted agencies in all scenarios
  - To fully understand the impacts and vulnerabilities, more detailed and localized assessments are needed. The OPSD-CZM is conducting a literature review to get a sense of how other states and government entities are approaching SLR and infrastructure adaptation. One strategy that is being used in San Francisco, and could be transferrable to Hawaii, requires a coordinating agency to provide guidance resources and trainings to support other agencies in conducting vulnerable assessments on their own respective facilities.
  - The OPSD-CZM will continue to reach out to partner agencies to discuss next steps
  - The OPSD-CZM has created an Act 178 StoryMap which includes an interactive GIS map: [Sea Level Rise Adaptation in Hawai'i \(arcgis.com\)](https://arcgis.com)
- Ms. Tadj presented brief summaries on the following on-going and pending projects:
- Scoping Study for a Regional Shoreline Management (RSM) Approach (RFP in progress)
    - Currently, shoreline management is done on a parcel-by-parcel basis which is not conducive for larger-scale, nature-based solutions. This study is an initial step in an overall initiative to better understand regional shoreline management and its implications
    - As of January 2022, the OPSD-CZM is reviewing proposals with an anticipated project start date at the end of the month.
    - The project will identify a method for defining regions, approaches to RSM strategy and future technical studies. It will also include four vetting workshops and two informational presentations (including one to the ORMP Council).
    - The OPSD-CZM will look to the expertise of partner agencies as this project moves forward
  - Coastal Management Fellowship (in progress)

- The OPSD-CZM has been selected as a host for a NOAA Coastal Management Fellow. Fellows are students working towards an advanced degree and will be placed at their host site for 2 years.
- The Fellow will be working on three main goals:
  1. Develop a statewide profile for Coastal Hazards and Development that represents population trends
  2. Identify exposure of at-risk communities, or hotspots, vulnerable to coastal hazards and from a social and socioeconomic perspective
  3. Create case studies at a micro-level of the demographic composition for 3-5 of the most socially and environmentally vulnerable communities.
- Assessing Legal & Policy Impacts of Managed Retreat for Hawaii (pending funding award)
  - This proposal was submitted to NOAA under the Project of Special Merit competitive funding opportunity.
  - In 2019, OPSD conducted a managed retreat feasibility assessment ([link](#)). It was a conceptual look at managed retreat in four common scenario profiles. This study also identified several barriers to managed retreat, including governance procedures.
  - This proposal builds on the feasibility assessment and hopes to address some of the governance-related challenges. The intended outcome is not a prescriptive how-to, but rather to identify the opportunities in current policies that support managed retreat and/or identify where new policy needs to be created.
  - Notifications of funding will go out in Summer 2022, with funded projects beginning in October 2022.

**b. Focus Area #2 Land-Based Pollution (LBP); Presented by Keelan Barcina, OPSD-CZM & Melanie Lander, UH Sea Grant**

- Mr. Barcina provided an update on the Identifying Frameworks for Land-Based Pollution Management in the Hawaiian Islands report which was introduced at the July 2021 Council meeting. The report was finalized early January 2022.
  - The report was written by UH Sea Grant on behalf of OPSD-CZM to provide guidance on next steps/implementable projects for this Focus Area. It identifies research needs, and recommendations for potential projects, including suggestions for agency partners.
  - The report was based on stakeholder interviews across federal, state and county agencies, and literature review.
  - The report focuses on LBP as defined by the ORMP, which is non-point source contamination (sediment, nutrients, toxins, pathogens, etc.) that come off the land and end up in Hawaii's nearshore environment. The ORMP, and this report, focuses on LBP in urban/developed areas.
  - The OPSD-CZM looks forward to working with partner agencies on identified actions outlined in the report.
- Ms. Lander, the author of the report, presented selected examples from sections of the final report.

- Report has four main sections: Current Management Framework; Successes & Shortfalls of the Current Management System; Suggestions for Research Needs; Recommendations & Insights
- “Shortfall” example: The current systems managed water quality and quantity separately. However, managing quantity is an effective way to manage quality. By separating the two, the system does not allow for comprehensive management of stormwater.
- “Success” example: The expansion of shoreline setbacks. Typically, these measures are associated with protecting from SLR impacts, but they are also effective in mitigating LBP. Having larger setbacks creates more open space where runoff can be filtered, as well as provides regulators with the ability to restrict the placement of waste management systems from shoreline areas.
- “Suggested research need” example: The need for more robust water quality data. LBP sources and conditions are very locally specific. Currently, there is a lack of water quality data which limits the ability to accurately diagnose the primary sources of LBP. A better understanding of the local situations would allow for more efficient use of funds and effort.
- “Suggested research need” example: The need for more information on the nexus of climate change and SLR on LBP. A rising groundwater table will expose new contaminants to the water system. It has already been identified that there are extensive areas along Honolulu’s coastline where the fill contains contaminants.
- “Suggested research need” example: While GIS data exists, there is a need for ground-truthed cesspool data. It is necessary to know with certainty where cesspools are located and their condition. This can assist with prioritizing those that need to be converted, and facilitating follow-ups and enforcement.
- Recommendations came both from stakeholder interviews, as well as through a synthesis of research findings and repeated themes. They also represent a spectrum in terms of necessary complexity, funding, capacity, and commitment. They are offered just as options. *There is no obligation for OPSD-CZM or any other agencies to implement them.*
- “Recommendations” example: utilize technology to encourage the development of LBP reporting mechanisms (similar to C&C Honolulu’s 311 app). Many stakeholders noted that most compliance actions begin with reports from the community.
- “Recommendations” example: Foster connections between county planning departments and public works departments to modernize permit review for land-based pollution considerations.
- “Recommendations” example: Prioritizing LBP considerations in community planning, especially in designated growth zones. The optimal time to reduce LBP sources is before development occurs.
- “Recommendations” example: support efficiencies by partnering with state and county agencies with shared goals. Look beyond stand-alone LBP projects, but rather look for opportunities for integration.

c. **Focus Area #3 Marine Ecosystems;** *Presented by Keelan Barcina, OPSD-CZM*

- Mr. Barcina provided an update on the implementation of projects under Focus Area 3.

- The OPSD-CZM has been working with the Coastal States Organizations (CSO) to updated some of the existing policy on coral restoration, as well as their positions on the Federal 30x30 plan, with hopes to direct funding to Hawaii and CZM.
  - The Kokua Community Based Monitoring Program (in-progress)
    - A successful grant application to NOAA's Project of Special Merit FY21. The OPSD-CZM received notification of award in September 2021 and a contract with UH was executed in November 2021
    - Project partners include KUA, DLNR-DAR, Conservation International - Hawaii
    - This project implements both ORMP and Holomua: Marine 30x30
    - The project addresses management gaps to prevent further damage to nearshore ecosystems by training communities to monitor currently unmonitored coastal resources. This project will bolster DAR's capacity to work with communities, as well as standardize monitoring practices.
    - Currently RCUH is working with DLNR-DAR to hire a project coordinator
- Ms. Nihipali concluded the presentations by acknowledging that each Focus Area is at a different stage of implementation and CZM continues to make progress in each. CZM will be reaching out to partner agency staff to obtain information and ensure that a wide range of agency expertise is included to inform and develop realistic outcomes, as well as make connections with existing initiatives to reduce duplication.
- d. Round table discussion on Focus Area project feedback and suggestions of related resources (existing efforts, studies, tool, staff contacts); *Facilitated by Mary Alice Evans*

Q&A and Discussion (paraphrased):

- Ms. Evans facilitated a Q&A discussion with members of the Council.

**Q: What is the timeline on the Kokua Community Based Monitoring Program?**

**A:** The project will run for 18 months, beginning this year, and running thru late spring 2023.

**Q: Were small boat harbors included in the Act 178 state facilities inventory?**

**A:** Yes, to the extent reported by DLNR and DOBOR, large and small boat harbors are represented in the inventory.

**Q: Were appurtenant structures included in the Act 178 state facilities inventory? For example, building renewable energy structures, such as solar farms, on state lands is becoming more common. Those structure might not be state owned but are still critical for the functioning of state facilities.**

**A:** Those types of structures were not included in scope of Act 178. Unencumbered lands, private utilities and county infrastructure was also not included. OPSD-CZM acknowledges the critical roles these assets play in the functioning of state facilities; however due to constraints in time and capacity (Act 178 is an unfunded mandate), was not able to include them in this initial inventory. The OPSD-CZM plans to continue working with the Act 178 partner agency Action Team to identify next steps for this initiative.

**Q: How are point source pollutants managed? Wouldn't coordinated management of point and non-point pollutants have a better outcome?**

**A:** Point source management does have benefits for the management of non-point source management, however the mitigation of point sources (like pipes from a factory) are required through the Clean Water Act whereas non-point source management is voluntary. Our urban and developed areas contribute a great deal to pollution in many small ways that add up (like pet waste, car washing, oil on the road) and these are not covered by point source legislation.

**Q: Is a known cesspool vulnerable to sea level rise considered a potential point source pollution or a non-point source pollution?**

**A:** All cesspools are considered a non-point source of pollution.

**Q: In the Act 178 report analysis, do the NOAA or SLR-XA scenarios also consider storm surge and other runoff from waves at higher sea levels, or strictly just sea level rise?**

**A:** The Sea Level Rise Exposure Area (SLR-XA) scenarios include high wave run up, passive flooding and erosion; however, the NOAA 6ft projection only considers passive flooding.

- **Ms. Iwamoto (PacIOOS):** There is the opportunity for synergy with the recommendations provided in the LBP report and PacIOOS funding opportunities. PacIOOS has been charged by NOAA with shepherding the Regional Ocean Data Sharing Initiative and they have available funding to address data needs in Hawaii and the Pacific territories. PacIOOS is particularly interested in projects that have already been identified (needs, partners, methods, etc.) and are looking for funding.
- **Mr. Glenn (HSEO):** HSEO is also doing work to assess vulnerability of energy facilities. While none come to mind as being vulnerable to coastal hazards, there are facilities vulnerable to flooding. HSEO and OPSD-CZM will connect to discuss opportunities for coordination with the work being done under Act 178.
- **Mr. Meyers (HI-EMA):** HI-EMA appreciates the opportunity to collaborate with the OPSD-CZM on Act 178. This initiative creates many opportunities to bridge agency efforts and goals. To underscore that these climate impacts are happening now, Mr. Meyers shared an aerial image of Makaha Beach after the recent Kona low storms. The beach is being inundated from both sides – high tides and NW swells and river flooding from the Makaha Valley.
- **Mr. Uchida (DPP):** DPP acknowledges the many challenges and threats from SLR impacts on coastal facilities. There are still many questions regarding topics like private property rights, and lack of expansion areas for industrial uses. Currently DPP is gathering data to better understand what their options are.
- **Ms. Surprenant (Planning Dept, County of Hawaii):** The County of Hawaii is working with USACE to study Hilo Bay water quality issues. USACE will be producing a report that summarized various completed studies, as well as provides recommendations for future actions.
- **Mr. Neilson (DLNR-DAR):** As part of their herbivorous fish management initiative, DAR recently held a series of public scoping meetings. One recurring theme voiced by the public was the need to manage LBP to protect marine resources. DAR sees many linkages between the various ORMP Focus Areas and appreciates the cross-agency conversations that happen under ORMP.
- **Mr. Cain (DLNR-OCCL):** The North Shore is threatened by regular seasonal erosion exacerbated by SLR (not storm surge). IN the past 3-6 years OCCL has authorized emergency temporary structures. Currently 60-70 of those structures are not in compliance and OCCL capacity is

stretched. OCCL is interested in pursuing regional solutions and looks forward to collaborating with OPSD-CZM on their regional shoreline management scoping study.

- **Ms. McLean (Planning Dept, County of Maui):** Several on-going coastal projects including a study of Maalaea Bay which will include water quality data, erosion causes, sand sources and managed retreat options. The Kahana Bay area has several condos imminently threatened and the County is looking into CDF mechanisms for beach renourishment. For both projects, the County is seeing objections from those with environmental concerns. This underscores the complexity of any coastal protection project – balancing the interests of billions of dollars in private property assets and major tax generators for the county with potential unknown detrimental environmental impacts. Maui County also facing a possible situation of forced managed retreat. Kahana Sunset condo wants to rebuild a building currently closed because of SLR impact damage. County is holding firm on not allowing the building to be rebuilt, and are now awaiting the legal outcomes.
- **Mr. Miyashiro (DOH-CWB):** DOH-CWB has been working closely with OPSD-CZM on NPS pollution measures. DOH-CWB is interested in expanding partnerships with others on the Council to share resources and knowledge.
- **Mr. Pant (DOT):** DOT-HWY has completed an exposure assessment of state highways, including climate and non-climate related hazards. The report also includes recommendations for moving forward ([link](#))
- **Mr. Sniffen (DOT):** DOT supports cross-agency discussions on coordination and suggests picking a pilot site to start testing implementation of these management strategies.
- **Mr. Foley (Oceanit):** LBP is a wicked problem with impacts on coastal resources. Similar to how OPSD-CZM is looking at regional scale management of the shoreline, perhaps a similar regional scale can be used for managed wetlands and watersheds.

#### **IV. Next Steps & Housekeeping**

Next Council Meeting Date – July 7, 2022

#### **V. Adjournment**

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