

Hawai'i Ocean Resources Management Plan

Coordinated Working Group

Meeting Summary

February 29, 2024, 9:30-12

UH Manoa

HIG Rm 210

Attendees:

	Name	Agency/Organization	Virtual
1	Alisha Summers	County of Kauai-Planning Dept	
2	Aloha Kapono	UH CRC	X
3	Amy Wirts	UH Sea Grant	
4	Anne Cohen	WHOI	X
5	April Surprenant	County of Hawaii-Planning Dept	X
6	Assaf Azouri	UH CRC	
7	Austin Barnes		X
8	Ben Reder	USACE	X
9	Brad Romine	UH Sea Grant	
10	Brandon Hee	HDOT	
11	Charlie Taylor	DLNR-DAR	
12	Chip Fletcher	UH CRC	
13	Christi Keller	DPP	X
14	Colin Lee	UH CRC	
15	Dean Guzman	HIEMA	
16	Dean Nakano	Brown and Caldwell	
17	Dolan Eversole	UH Sea Grant	
18	Douglas Luther	UH CRC	X
19	Emily Hauck	Navy Region	
20	Gabriella Sandoval		X
21	Helena Andrade	UH CRC	
22	Jim Buika	County of Maui-Planning Dept	X
23	Jodi Higuchi Sayegusa	County of Kauai-Planning Dept	
24	Josh Hekeka	OPSD-CZM	X
25	Juliette Budge	UH CRC	
26	Justin Niimi	HIEMA	
27	Justine Nihipali	NOAA-OCM	
28	Katie Nalesere	DLNR-DAR	X
29	Kayla Yamamoto	UH CRC	

30	Ketty Loeb	UH-ISR	
31	Kevin Chang	Kua‘aina Ulu ‘Aamo	X
32	Kristi Kimura	OPSD-CZM	
33	Kristian McDonald	UH CRC	
34	Kyle Murray	UH CRC	
35	Lara Noren	DLNR-DAR	
36	Lisa Webster	OPSD-CZM	
37	Madeline Kruegar	UH Sea Grant/OCCSR	
38	Madeline Sherman	Coral Resilience Lab/HIMB	
39	Marshall Hung		X
40	Matt Matasci	Brown and Caldwell	X
41	Matthew Barbee	UH CRC	
42	McKenzie Lim	OPSD-CZM	
43	Michael Cain	DLNR-OCCL	
44	Nancy McPherson	DHHL	X
45	Nick Sinchek	MCBH	
46	Noah Paoa	UH CRC	
47	Noel Dunn	Navfac Pacific	
48	Phil Fernandez	MACZAC	X
49	Richelle Moskvichev	UH CRC	X
50	Romio Idica	County of Kauai-Planning Dept	
51	Rory Guild	USACE	X
52	Ruby Pap	UH Sea Grant/County of Kauai Planning Dept	X
53	Sarah Chang	OPSD-CZM	
54	Sarah Harris	OCCSR	
55	Sean Vitousek	USGS	X
56	Shellie Habal	UH CRC	
57	Shichao Li	OPSD-CZM	
58	Skylar Kimura	UH CRC	
59	Sofia Luczak	OPSD-CZM	
60	Tara Owens	UH Sea Grant/County of Maui Planning Dept	X
61	Tess Sprague	Brown and Caldwell	X
62	Tiffany Anderson	UH CRC	X
63	Todd Low	HDOA	X
64	Tracie Camero	County of Hawaii-Planning Dept	X
65	Troy Maeda	DOH	X
66	Tyler Oshio	Brown and Caldwell	
67	Yuki Terada	OPSD-CZM	
68	Zhenhua Huang	UH CRC	
69	ZOOM Name: Jshoji		X

70	ZOOM Name: KEston		X
71	ZOOM Name: Rocky		X

WELCOME & INTRODUCTIONS

Sarah Chang, project analyst, Coastal Zone Management Program, welcomed participants on behalf of Debra Mendes, acting Program Manager, to the first 2024 Coordinated Working Group (CWG).

CZM AND ORMP UPDATES

Every 5-years NOAA conducts a review of the State CZM Programs. Hawai'i CZM's evaluation (312 Evaluation) is in 2024. NOAA will be conducting a survey with CZM's partners and then reaching out for follow-up interviews in August.

Project Coordination Map: Map is live and password protected. Reminded partners to update project map as needed.

Funding Opportunities

- 2024 National Coastal Resilience Fund: Approximately \$140 million to be awarded for projects relating to:
 - 1.) Community Capacity Building and Planning
 - 2.) Site Assessment and Preliminary Design
 - 3.) Final Design and Permitting
 - 4.) Restoration and Implementation
 Pre-proposals due April 10, 2024

2024 LEGISLATIVE SESSION UPDATES

CZM Tracked Bills:

- **HB1545/SB2184:** Relating to adaptation pathways planning. Expands the authority of the State and counties to develop adaptation pathways plans to modify and relocate infrastructure away from critically threatened areas to locations outside sea level rise and coastal flooding exposure areas.
 - From OCCL: There was some push back from land-use lawyers. Passed in the House, not had its final reading in the Senate.
- **HB1546/SB2183:** Relating to restoration of beach lands. Amends the definition of "beach restoration" used in laws governing the Board of Land and Natural Resources' powers to engage in beach restoration to include activities undertaken to maintain and improve eroded beaches and degraded dune systems and to remove abandoned and remnant manmade materials that pose a risk to the health of the public and ecosystem.
 - From OCCL: Same concern from land-use lawyers about beach nourishment. Passed in the House, not had its final reading in the Senate.
- **HB2143/SB2057:** Relating to beach park restoration. Appropriates funds for a grant-in-aid to the County of Hawai'i to hire an engineering firm to study, plan, assist, and conduct preliminary design and concept work for a two-phase project to restore the Kahaluu Beach Park in the

County of Hawai'i. Conditions the appropriations on the County of Hawai'i's contribution of matching funds.

- **HB2248:** Relating to beach management on the North Shore of Oahu. Appropriates funds to the university of Hawai'i sea grant college program to develop a north shore beach management and climate adaptation plan for the north shore of Oahu from Sunset point to the Kapo'ō (Sharks Cove) area. Appropriates funds.
 - From UH Sea Grant: Passed out of House Finance committee. UH is in support.
- **SB3300:** Relating to coastal zone management. Requires county planning commissions, county councils, and designated authorities on coastal zone management to seek to minimize, where reasonable, any risk to development from sea level rise and other coastal hazards.

Bills Shared by ORMP Partners:

Bills shared by DAR:

- **HB1554/SB2915:** Relating to aquatic resources. Expands the department of land and natural resources' rulemaking authority to include any rule to impose restrictions or requirements deemed necessary to protect certain aquatic life. Expands the board of land and natural resources' authority to temporarily adopt, amend, or repeal certain natural resource rules by formal action at a publicly noticed meeting if the board finds that such adoption, amendment, or repeal is necessary to implement effective and adaptive management measures in light of newly available technology, or in light of newly available data.
 - 1.) Identify cesspool priority areas and can move potentially move the date down.
- **HB1759:** Relating to Cesspools. Requires cesspools attached to or used by housing or lodging that provides transient accommodations to be upgraded, converted, or connected before 1/1/2035 for priority level 1 cesspools and before 1/1/2040 for priority level 2 cesspools. Effective 7/1/3000.
- **HB1892/SB2426:** Relating to Cesspools. Part II: Amends the deadlines for required upgrades conversions, or connections for certain priority level 1 and priority level 2 cesspools. Part III: Authorizes and appropriates funds to the Department of Health to retain qualified consultants as necessary to identify necessary public outreach and education resources and tools and develop a comprehensive public outreach strategy and website to educate homeowners and wastewater industry professionals about information and resources regarding the State's cesspool upgrade, conversion, and connection requirements and deadlines. Part IV: Appropriates funds and establishes positions for the implementation of the cesspool compliance pilot grant project. Effective 7/1/3000. (HD2)
- **HB2743/SB2952:** Relating to wastewater. Requires each county to develop and maintain a wastewater management plan. Authorizes the Director of Health to exempt a county from creating a wastewater management plan under certain conditions. Requires the counties to identify specific priority areas in which the county sewer system or other centralized treatment system will be expanded or constructed to reduce or eliminate cesspools before 1/1/2050. Provides for the designation of these priority areas as sewer improvement districts. Authorizes each county to assess a monthly cesspool pollution fee beginning in 7/1/2025 on real properties containing a cesspool. Authorizes the counties to use fee revenues for certain activities that eliminate, reduce, or mitigate the impacts of cesspools, including the expansion of county sewer

systems and the issuance of grants and low-interest loans to property owners. Makes appropriations.

- **HB2264/SB2513:** Relating to cesspools. Establishes a three-year new wastewater system demonstration and implementation pilot program within the University of Hawai'i Sea Grant College Program. Appropriates funds.
- **HB2478/SB3167:** Relates to the Pacific Marine Fisheries Compact. Authorizes the Governor to execute a compact on behalf of the State to cooperate in the Pacific States Marine Fisheries Commission. Establishes procedures for selection and succession of commissioners.
- **HB2201:** Relating to the environment. Generally, prohibits the removal of minerals from the seabed in all state marine waters. Prohibits the issuance of permits for the mooring, docking, or operation of any vessel designed or intended for removal of minerals from the seabed. Provides for exceptions relating to beach replenishment, research purposes, and native Hawaiian cultural practices. Failed in House, passed in Senate.
- **SB2182:** Relating to Ocean Stewardship Special Fund. Makes permanent the Ocean Stewardship Special Fund.
- **HB2631/SB2329:** Relating to aquaculture. Appropriates money for mullet production for fishponds and stock enhancement, including for new positions, equipment, maintenance, and operating costs. Declares that the appropriations exceed the state general fund expenditure ceiling for 2024-2025.

Bill shared by HDOT:

- **HB2175:** Relating to the Ka'a'awa-Hau'ula community-based long-range transportation plan. Appropriates funds for and requires the involvement of community members and organizations in the development of a community-based long-range transportation plan for the Ka'a'awa, Punalu'u, and Hau'ula communities.

Modeling Seminar

Climate Resilience Collaborative (CRC) Introduction

Chip Fletcher, SOEST interim dean and leader of the Climate Resilience Collaborative introduced online map viewer that involves many types of modeling. Gave background on the levels of sea level rise due to global warming and climate change.

Vertical Land Motion

Elevation change is also referred to as vertical land motion which can be caused by sediment compaction and volcanic activity and is important to measure because it perpetuates infrastructure consequences of sea level rise. The key takeaway is subsidence will expand the area of flooding and accelerate the timeline that we have to prepare for flooding.

Compound Flooding using WRF-Hydro

Compound flooding occurs when 2 or more flood drivers occur simultaneously or in close succession; flood drivers include high winds, a storm surge, and land flooding. The model uses the WRF-Hydro and the extended coastal model called WRF-Hydro-CUFA which is useful to government officials and planners to effectively plan for development.

Annual Wave Flooding

In previous models, 1-D transects were used to map annual wave events. In this model, 2-D domains were used to map 10 computational domains. Results include sea level rise scenarios with wave events and show flood events in these scenarios.

Groundwater Inundation

As sea level rises, it causes Hawaii's drainage system to fail in phases. Groundwater inundation and sea level rise causes the water table to rise, which can also become saltier. This can cause damage to roadways, intensified corrosion to underground infrastructure, overwhelming of sewage treatment plants, a reduced capacity of stormwater networks, and intensified corrosion to building foundations.

Storm drain modeling

The existing base-level of water in storm drains is higher, so when rain events occur, backflow is dangerous to transportation and infrastructure. The model, PCSWMM takes inputs of rain events and boundary conditions and shows outputs of flood depth, flood volume, and hours surcharged. Results showed that at higher levels of sea level, drainage systems are at capacity and cause drainage failure.

Satellite Shoreline Data and Coastal Erosion modeling

The current iteration of coastal erosion modeling includes past shoreline change, wave conditions, and SLR scenarios which can predict future erosion hazard zones. Shoreline monitoring includes the available imagery from satellites and AI to automatically automate shorelines.

CRC Coastal Erosion Modeling

Using CoSMoS Coast, the model can predict the shoreline position from past, present, and into the future. The governing model equation takes long-term components (months-decades) and short-term components (<month) to predict the change in shoreline distance.

Hawaii Shoreline Study Web map

The Historical Shoreline Project is an ongoing project to provide scientific and empirical data to the public on coastal erosion and shoreline changes. The study begins with imagery with photos dating back to the 1900s. These images go through a processing to model shoreline changes on the web map available on the CRC's website ([Hawai'i Shoreline Study web map - Climate Resilience Collaborative \(hawaii.edu\)](#)).

Resiliency Plans

The CRC embarks on a moku by moku process to use the modeling to build climate resilience plans. The Ko'olaupoko moku is where most modeling has occurred and resilience planning begins there. Goals of resiliency planning includes using modeling and mapping to improve communication to the community.

Questions:

Have we seen any response from the counties on building codes due to flooding?

- CRC response: Counties, especially City and County of Honolulu have given strong financial support and changes in policy. County of Kauai uses data on SLR and wave modeling.

As planners, we must find solutions, is there any way to pivot people to the issues in Lahaina and rebuild properly?

- CRC response: Not sure what the solutions are for the Lahaina community. There was a discussion that some Kingdom Lands could be restored to their natural wetlands. There is a proposal to Federal agencies out now to begin modeling in the Lahaina area.

Roundtable Announcements

County of Maui:

With big winter storms in Kihei, some beaches were chewed up from the storm surge. Beaches that had recently restored dunes saw the creation of a wide stable beach with limited erosion. Beaches without dunes experienced severe erosion. Stay proactive in shoreline management!

DHHL:

There is a need for modeling in southern Molokai shoreline. Will be developing Focus Area 1 and 2 goals with housing on Molokai. We didn't get Molokai into the cesspool prioritization due to lack of data.

OCCL:

HB2175 calls for community-based transportation plan and are hungry for data. OCCL to give community contacts to CRC for Ko'olaupoko moku.

Next Steps

Next meeting: May 2024

- Kokua Phase II Monitoring Presentation
- 2024 Legislative Session Debrief