

Hawaii Coastal Management Program Coastal Management Fellow Proposal, 2021

1. Background and Introduction

Hawaii is unique in relation to the contiguous United States in that it is an archipelago of islands, surrounded by water, with much of the State's development found along the coast. Many of Hawaii's coastal areas will likely be impacted by sea level rise by the end of this century. The Sea Level Rise Vulnerability and Adaptation Report (2017)¹ identifies that 25,800 acres of land statewide would be unusable because of chronic flooding due to 3.2 feet of sea level rise, amounting to \$19 billion in financial losses. Additionally, the report identifies that 34% of urban land, 25% of agricultural land, and 40% of conservation land could be lost. 3.2 feet of sea level rise also threatens 6,500 of the structures located near the shoreline, displacing 20,000 residents. Honolulu, the most densely populated area in the state, will be seriously affected by coastal flooding (Kim et al. 2015)². About 80% of the economy and 76% of the total employment in the urban core of Honolulu is exposed to flooding. Coastal flooding can affect 38% of the freeways, 44% of the highways, 69% of the arterial roads, and 40% of the local streets in the Honolulu urban core. While the losses of infrastructure and economic loss are more or less quantified, details of social impacts from sea level rise, and other coastal hazards are scant³.

Despite the availability of data and continuous research on the State's infrastructure vulnerable to sea level rise, coastal hazards, and erosion, there is little understanding about the social vulnerability of the State to these hazards. Most of the awareness and knowledge on the most vulnerable members of the population is anecdotal and neither fact-based nor data driven. As a result, not only are there conflicting accounts of the population groups most vulnerable to coastal hazards but it is also challenging to advance policy that accommodates the most vulnerable population groups in Hawaii.

The literature recognizes that it is increasingly important for overall resilience and climate adaptation to recognize the vulnerable populations (Cutter et al. 2007)⁴. According to two meta-studies that evaluated research on vulnerability of coastal communities, trends over time show that a localized understanding of social vulnerability, in addition to ecological vulnerability and the physical processes, is crucial to understanding adaptive capacity and resilience of a community to natural hazards (Bevacqua et al.

¹Hawai'i Climate Change Mitigation and Adaptation Commission. (December, 2017). *Hawai'i Sea Level Rise Vulnerability and Adaptation Report*. Retrieved from:

https://climateadaptation.hawaii.gov/wp-content/uploads/2017/12/SLR-Report_Dec2017.pdf

² Kim, K et al. (2015). Evacuation Planning for Plausible Worst Case Inundation Scenarios in Honolulu, Hawaii. *Journal of Emergency Management* 13 (2): 93-108.

³ Examples of recent statewide resilience reports that do not address socioeconomic factors and the social aspect of vulnerability:

Hawaii Highways Climate Adaptation Action Plan: Strategies for a More Resilient Future (2021) <https://hidot.hawaii.gov/wp-content/uploads/2021/07/HDOT-Climate-Resilience-Action-Plan-and-Appendices-May-2021.pdf>

Statewide Coastal Highway Program Report (2019) https://hidot.hawaii.gov/highways/files/2019/09/State-of-Hawaii-Statewide-Coastal-Highway-Program-Report_Final_2019.pdf

⁴ Cutter, S, Finch, C. (2007). Temporal and Spatial Changes in Social Vulnerability to Natural Hazards. *Proceedings of the National Academy of Sciences* 105(7) 2301-2306.

2018; Lima et al. 2020)⁵. An understanding and awareness of the socioeconomic characteristics are of importance to decision-making and policymakers to better develop policy that can reflect the needs particular to communities. Similarly, a review of coastal vulnerability and adaptation strategies also shows that the literature acknowledges the importance of social vulnerability (Anfuso et al. 2021)⁶. Additionally, having a better understanding of the variability of the vulnerable populations is critical to developing place-based climate adaptation and emergency plans (Cutter et al. 2007), particularly for coastal communities (Boruff et al., 2005)⁷. Moreover, recognizing the varying impacts from coastal hazards on coastal communities, in addition to the spatial distribution of these communities, is one way to minimize risks from coastal hazards (Lima et al. 2020). There are numerous factors that affect vulnerability to coastal hazards, including demographic density, average family income, population age, and education levels.

Geographic data, including indicators of areas threatened with coastal hazards and demographic data are available for Hawaii on state and county scales. The demographic composition of the coastal communities and their ability to cope and adapt to potential damages is identified in the literature but contextual information specific to Hawaii lacks granular analysis. While demographic and Census data is available statewide, with the CDC's Social Vulnerability Index⁸ data available down to the census tract level, specific, micro level and household profiles of these communities is missing. Furthermore, the robust macro level data are neither consolidated nor organized in ways that can facilitate analyses to determine who and where are the most underserved communities on Hawaii's coastlines. Projects and plans related to coastal hazards adaptation, including sea level rise and erosion, have thus far been primarily focused around tourism centers and areas with high profile real estate in the State, leaving the smaller, more rural, and less affluent communities out of the conversation. While it is assumed that these areas tend to coincide with communities consisting of Native Hawaiian, Pacific Islanders, and other minority groups, there is a lack of authoritative data that confirms the assumption.

The Hawaii Coastal Zone Management (CZM) Program, through the Ocean Resources Management Plan (ORMP), and working through a network of agency partners, focuses on policy to advocate for and implement projects to ensure the environmental and economic viability of Hawaii's coastlines. The ORMP is the CZM's planning document aimed at preserving, restoring, and protecting the State's natural and cultural coastal resources. The ORMP includes three Focus Areas: Development and Coastal Hazards, Land-Based Pollution, and Marine Ecosystems. CZM is tasked with developing statewide

⁵ Bevacqua, A et al. (2018) Coastal Vulnerability: Evolving Concepts in Understanding Vulnerable People and Places. *Environmental Science and Policy* 82: 19-29.

Lima, C. Bonetti, J. (2020). Bibliometric Analysis of the Scientific Production on Coastal Communities' Social Vulnerability to Climate Change and to the Impact of Extreme Events. *Natural Hazards* <https://doi.org/10.1007/s11069-020-03974-1>

⁶ Anfuso, G. et al. (2021). Coastal Sensitivity/Vulnerability Characterization and Adaptation Strategies: A Review. *Journal of Marine Science and Engineering* 9 (72): 1-29.

⁷ Boruff, B. et al. (2005). Erosion Hazard Vulnerability of US Coastal Counties. *Journal of Coastal Research* 21 (5): 932-942.

⁸ Centers for Disease Control and Prevention (2020), CDC Social Vulnerability Index https://www.atsdr.cdc.gov/placeandhealth/svi/fact_sheet/fact_sheet.html

policies and planning for mitigating coastal hazards such as sea level rise and exploring managed retreat. It becomes increasingly difficult to prioritize and protect communities that are most socially and environmentally vulnerable to coastal hazards, including sea level rise, for CZM without a comprehensive understanding of the shoreline. Currently, CZM lacks authoritative data on how sea level rise policies may affect vulnerable communities. To develop policies that incorporate as many perspectives as possible, CZM seeks a better understanding of who is most vulnerable and how proposed policy changes will impact the more socially vulnerable residents of the State.

The fellow will work on compiling and synthesizing existing resources while identifying and filling data gaps related to shoreline characteristics. Prioritizing coastal hazards adaptation policy for underserved demographics requires a better understanding of the current socioeconomic and environmental trends that make up the fabric of our coastal communities. A better picture of the socioeconomic characteristics would include data related to the household composition, social cohesion and the degree a community is isolated, and cultural considerations of a community, in addition to the degree households have financial capacity to adapt to coastal hazards. A comprehensive analysis that identifies the communities most likely to be adversely affected would help allocate resources to those communities that would most require it.

2. Goals and Objectives

The overall goal of this project is to develop knowledge and resources for the State of Hawaii and the Hawaii CZM Program to have a better understanding of who and where are vulnerable communities that are likely to require the most support to adapt to coastal hazards. The Fellow will work on identifying vulnerable areas where environmental and social impacts intersect by analyzing current State and Counties' data, and offering a more robust understanding of the demographic composition of these vulnerable communities. These communities may include rural, small, isolate, low-income, Native Hawaiians and Pacific Islanders, among others.

The goals and objectives of this fellowship are:

Goal 1: Develop a statewide profile for Coastal Hazards and Development (Focus Area I of the ORMP) that represents population trends.

Objective 1.1: Examine existing data to define trends related to Coastal Hazards and Development using environmental, social/demographic, and infrastructure related data.

Objective 1.2: Identify data gaps related to coastal hazards and social/demographic data.

Objective 1.3: Create a resource to communicate spatially representative analysis outcomes to represent Coastal Hazards and Development data trends in a spatial format (StoryMap, individual maps, etc.).

Goal 2: Identify exposure of at-risk areas/communities, or hotspots, vulnerable to coastal hazards and from a social and socioeconomic perspective.

Objective 2.1: Analyze data gathered from Goal 1 and identify the most socially vulnerable communities throughout the Hawaiian Islands threatened by sea level rise, erosion, and other coastal hazards.

Objective 2.2: Identify areas and spatially represent areas where social and socioeconomic variables intersect with coastal hazards.

Goal 3: Create case studies at a micro-level, granular level of the demographic composition for 3-5 of most socially and environmentally vulnerable communities, representative of the diverse contexts in the State.

Objective 3.1: Develop an appropriate survey to better understand the demographics and needs of residents living in shoreline properties for 3-5 of the communities threatened by coastal hazards and sea level rise.

Objective 3.2: Analyze data gathered from the survey and spatially represent the findings for 3-5 of the communities.

3. Milestones and Outcomes

Task 1 – Orientation and Work Plan

Timeline: Fall 2022

Outcomes/Milestones

October 2022	Participate in the CSO Member Meeting; network with coastal management contacts; gather feedback on research plans	Goal 1, Objective 1.1
October 2022	Two-year work plan, including research plan for main project, and priorities for professional development	Goal 1, Objective 1.1

Task 2 – Inventory of Existing Data and Identification of Data Gaps

Timeline: Fall 2022 to Summer 2023

Outcomes/Milestones

December 2022	Develop a repository of statewide, authoritative data to that contributes a more comprehensive understanding of the coastal hazards and demographic data trends, including outreach to stakeholder agencies.	Goal 1, Objective 1.1; Objective 1.2
December 2022	Develop a story map, set of maps, or other visual representation, highlighting coastal hazards trends for the State as they relate to socially vulnerable population groups	Goal 1, Objective 1.1; Objective 1.3
January 2023	Compile an internal list of 3-5 potential at-risk communities from the identified composite vulnerabilities analysis for in-depth profiles for Year 2	Goal 2, Objective 2.1
January – May 2023	Present findings at CSO DC Meeting, ORMP Council Meeting, and other relevant events to gather feedback	Goal 2, Objective 2.2

Task 3 – Community Profiles of At-Risk Communities

Timeline: Fall 2023 to Summer 2024

Outcomes/Milestones

September 2023	Complete appropriate survey instruments for in-depth community profiles	Goal 3, Objective 3.1
October 2023 – December 2023	Internal reporting of travel reports detailing challenges, if any, with on-site community surveys	Goal 3, Objective 3.1
December 2023	Internal memo summarizing preliminary findings from surveys	Goal 3, Objective 3.1
January – February 2024	Present project progress at the ORMP Council Meeting and the Marine and Coastal Zone Advocacy Council (MACZAC)	Goal 3, Objective 3.2
August 2024	Complete report on project of at-risk communities' profiles	Goal 3, Objective 3.2

4. Project Description

The project will cover a macro-level and micro, granular level understanding of coastal hazard trends as they relate to the most socially vulnerable communities for the State of Hawaii. The fellow will benefit from having knowledge on data analysis, including spatial data analysis, survey methods, and visual representation.

This project will include (1) developing statewide profiles for Coastal Hazards and Development (Focus Area I of the ORMP), (2) identifying data trends and micro level data gaps, (3) identifying demographic compositions throughout the State at risk of sea level rise inundation, and (4) developing specific community profiles for some of these at-risk communities. The coastal management fellow would be tasked with reviewing and analyzing existing data, both geographic and non-geographic, working with partner agencies to pursue additional data and for clarification of existing data, and, time permitting, developing a survey to be disseminated to residents of coastal parcels within at-risk communities to determine demographics of these residents.

Task 1 – Orientation and Work Plan

The initial phase of the fellowship will focus on working with mentors to build familiarity with the Hawaii-specific context, governance structure and stakeholders related to shoreline permitting and management. The fellow will also do an in-depth analysis on the existing literature, including climate adaptation reports, and datasets, including spatial and tabular, to familiarize themselves with the current state and challenges related to coastal hazards, and sea level rise. Based on the initial data familiarization, the fellow will design an adaptive two-year work plan, refining the timeline with planned deliverables based on the fellow's interests, expertise, and career goals to either assess the intersection of socio-economic variables with coastal hazards.

Task 2 – Inventory of Existing Data and Identification of Data Gaps

The initial year of the fellowship will focus on gathering different types of data relevant to the shoreline to create a comprehensive picture of the state's shoreline characteristics. Data can include environmentally relevant data, such as geomorphology and backshore geology, soil types, and shoreline changes, and socially relevant data, such as ethnic composition, household types, and income, among others. Using initial information gathered, the fellow would work with partner organizations, subject

matter experts, and community practitioners to inform the research. Drawing from an analysis of the data, the fellow will identify communities based on social characteristics most vulnerable to coastal hazards, sea level rise, and shoreline erosion. The outcome will be a composite of vulnerabilities spatially represented. The fellow will initiate brief research into the communities, which will help inform the outreach strategy for Year 2.

Task 3 – Community Profiles of At-Risk Communities

Based on the identified at-risk, vulnerable communities, the fellow will develop an appropriate method of outreach for the 3-5 at-risk communities to learn more about the demographic composition of these communities. The final product will include maps, or other visual tools, that represent the various socioeconomic composition of the at-risk communities. Throughout the process of Year 2, the fellow will solicit support and feedback from the ORMP stakeholders. The outcomes of the project will help inform the Hawaii CZM Program on the next steps for ORMP implementation and prioritize funding and outreach opportunities to the identified at-risk communities.

The project will live on after the fellowship as a foundational document to support the implementation of the activities under the Ocean Resources Management Plan that are lead by the CZM Program. The CZM Program will also encourage its partners that are conducting separate but related initiatives to utilize the project outcomes as a resource to inform their activities and decision-making processes.

In addition, the outcomes of the project will have identified communities that who can be targeted for outreach and discussions related to how they view the impacts from coastal hazards to their communities. Studies indicate that adaptation/relocation are more successful when the action occurs from community-driven conversations. Developing a process to engage with communities is a key component of approaching future planning efforts, in particular, for these “wicked problems” that are difficult to approach and complicated to address. Project outcomes will broaden Hawaii’s narrative for coastal hazards with the inclusion of these communities that have not been typically highlighted or recognized as facing future challenges. The profile serves as a primary baseline and may be updated periodically as new data becomes available.

5. Diversity, Equity, Inclusion, and Justice

This project considers and will advance the principles of diversity, equity, inclusion, and justice (DEIJ) by centering the project on previously underserved and overlooked coastal communities in the State of Hawaii. The State of Hawaii lacks data related to the demographic composition of coastal residents, particularly in areas outside tourism centers. These areas include smaller, more rural communities. The project outcomes will develop more comprehensive understanding of the coastal communities at risk to coastal hazards, including sea level rise and erosion impacts. The outcomes will also identify those communities with the highest social vulnerabilities. In identifying these communities, the Hawaii CZM Program will have authoritative data to allow the Program to be better positioned to advocate for and develop policy and implement projects that better served the State’s most socially vulnerable.

6. Fellow Mentoring

The primary mentor for this project is Justine Nihipali, Program Manager of the State of Hawaii Coastal Zone Management Program. Through this position, she also serves in various capacities with entities that a fellow may be interested in including: the Hawaii Climate Mitigation and Adaptation Commission, the Greenhouse Gas Sequestration Task Force, the PaclOOS Governing Council, and the NERRS Science Advisory Council. The Coastal Management Fellow would also be working closely with two CZM Project Analysts that are focused on coordination and implementation for the Program's approved Section 309 Assessment & Strategy under the Coastal Hazards Enhancement area which implements the Ocean Resources Management Plan, Focus Area #1 Development and Coastal Hazards. Additional mentors include Christine Chaplin, Planner, State of Hawaii GIS Program who is also housed in the Office of Planning and Sustainable Development. Her contribution lies with providing guidance for visually representing geospatial data.

The fellow will be considered as a part of the CZM Program team. Presently, accountability on a day-to-day basis includes email check-ins to the Program Manager/mentor with a description of the tasks that will be covered during the day. Collaboration among office staff is very open and an "open door" policy is implemented both in-person and virtually.

The fellow will be integrated into organization meetings and be provided access to the two primary virtual platforms that are presently in use, Microsoft Teams and Zoom. The Program meets bi-monthly as a whole and will provide opportunities to share updates and ideas. The Office itself meets bi-monthly on opposite weeks of the Program meetings and provides networking opportunities with the entire office. The fellow's work would be integrated into the CZM staff team that is charged with coordinating the implementation of the Hawaii Ocean Resources Plan. This also involves participation in meetings with stakeholder agencies that are key partners to implementation.

7. Office Environment

The current work status in the Office of Planning and Sustainable Development, which houses the Hawaii Coastal Zone Management Program, is a hybrid system, with some employees teleworking, others working in the office, and still others combining telework and in-office work throughout the week. Presently, visitors entering State buildings are required to show proof of vaccination for Covid-19 and/or a negative test up to 72 hours prior to entering the facility and this should be shared with potential Fellows if this proposal is selected.

The primary mentor for this project, Justine Nihipali, combines telework with in-office work, and the fellow would likely have a similar work situation. The host will provide the fellow a laptop with video camera to enable virtual meetings as needed if either the mentor or the fellow is working from home. The host will provide any software needed for the project, including ArcMap/ArcGIS Pro, Microsoft Office, Teams, and Adobe Suite. As needed, the Program may also provide a keyboard, mouse, and headset for the fellow's use.

8. Project Partners

As a network program, the Hawaii Coastal Zone Management Program has a large and varied group of actively engaged partners at the Federal, State, and county levels. The Program convenes regular meetings through the Hawaii Ocean Resources Plan partnership to further shared goals related to coastal zone management issues. Existing efforts for implementation are underway, but focus largely on impacts to the built environment and beaches. The fellow will participate in these meetings to gain a better understanding of current coastal zone issues in Hawaii, also enabling the fellow to develop relationships with partners. As part of the scope of work for the objectives, the fellow will also need to reach out to agencies relating to the data that is provided to ensure that our understanding of its use is appropriate and accurate. In that way, the fellow will also develop their own unique relationships with stakeholders and gain a better understanding of partner roles, responsibilities, and interactions with coastal management.

9. Cost-Share Description

The Hawaii Coastal Zone Management Program will provide the \$15,000 fellowship match using funding from its recurring NOAA Section 306 Program Administration funds. The match requirement of \$7,500/year will be included in each year of the CZM Program's upcoming multi-year grant application for assistance under the Coastal Zone Management Act for FY22-23 and FY23-24.

10. Strategic Focus Area

The project will address the Strategic Focus Areas through the following topics:

Resilient Coastal Communities

The proposed project addresses resilient coastal communities by expanding the focus and conversation about coastal erosion and sea level rise risks outside of tourism centers and high-profile wealthier beachfront neighborhoods. The proposed project recognizes that some communities may not have beachfront property risks, but that coastal transit corridors serve as a lifeline to ingress and egress. Project outcomes will increase awareness and understanding of the scale of impacts from current and future coastal hazards risks and impacts affecting the State and help to better inform future actions to address them. The proposed project supports communities that should equally be included as part of the broader equity discussions for envisioning the future of the State.

Vibrant and Sustainable Coastal Economies

The project will address these vibrant and sustainable coastal economies for the most socially vulnerable coastal communities for the State of Hawaii by centering socially vulnerable communities in areas vulnerable to coastal hazards. The socially vulnerable coastal communities would include smaller, rural communities, low-income residents, minorities and people of color, including Native Hawaiians and Pacific Islanders, among other demographic types that may be less likely to have the ability to adapt to coastal hazards and risks. The project will compile existing data, identify data gaps, and analyze the data as they relate to coastal communities. Having this authoritative data will allow the Hawaii CZM Program to advocate for public policy and implement projects that benefit and allow the most socially vulnerable coastal communities to become more resilient to coastal hazards, including more chronic hazards such as sea level rise and erosion, including economic investments for coastal infrastructure.

Mitchell D. Roth
Mayor

Lee E. Lord
Managing Director

West Hawai'i Office
74-5044 Ane Keohokālole Hwy
Kailua-Kona, Hawai'i 96740
Phone (808) 323-4770
Fax (808) 327-3563



County of Hawai'i
PLANNING DEPARTMENT

Zendo Kern
Director

Jeffrey W. Darrow
Deputy Director

East Hawai'i Office
101 Pauahi Street, Suite 3
Hilo, Hawai'i 96720
Phone (808) 961-8288
Fax (808) 961-8742

October 14, 2021

Senior Coastal Management Specialist
Coastal Management Fellowship Coordinator
NOAA Office for Coastal Management
2234 South Hobson Avenue
Charleston, SC 20405

Dear Ms. Allen,

On behalf of the County of Hawai'i Planning Department, I am pleased to express my strong support for this proposal for the placement of a Coastal Management Fellow with the State of Hawai'i Coastal Zone Management (CZM) Program, as part of NOAA's Coastal Management Fellowship and Digital Coastal Fellowship Programs. The Hawai'i CZM Program is the State of Hawaii's resource management policy umbrella and provides a coordinated and effective focus to the laws, ordinances, and rules dealing with coastal resources within a framework of cooperation among federal, state, and local levels. The Hawai'i County Planning Department strongly supports CZM's work to promote statewide resilience to climate change through the State's planning framework and the State's Ocean Resources Management Plan.

Ensuring that the State's policy development accurately reflects county challenges and needs is essential to supporting our offices, as the local planning entities that carry out county-level implementation. Thus, authoritative data are fundamental for planning and decision-making for the State of Hawai'i. Centering diversity, equity, inclusion and justice in coastal hazards adaptation planning is serious in the State of Hawai'i and the Coastal Management Fellow will offer a comprehensive understanding of the statewide shoreline challenges, identifying communities that may be most impacted by coastal hazards.

I fully support CZM's proposal for a Coastal Management Fellow to provide accurate coastal and social data to inform policy decisions for a more resilient Hawai'i. Feel free to contact me at Zendo.Kern@hawaiicounty.gov or 808 961-8125 with any questions and/or concerns.

Sincerely,

ZENDO KERN
Planning Director

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 768-8000 • FAX: (808) 768-6041
DEPT. WEB SITE: www.honolulu.gov • CITY WEB SITE: www.honoluludpp.org

RICK BLANGIARDI
MAYOR



DEAN UCHIDA
DIRECTOR

DAWN TAKEUCHI APUNA
DEPUTY DIRECTOR

EUGENE H. TAKAHASHI
DEPUTY DIRECTOR

October 14, 2021

Ms. Margaret Allen
Senior Coastal Management Specialist
Coastal Management Fellowship Coordinator
NOAA Office for Coastal Management
2234 South Hobson Avenue
Charleston, South Carolina 29405

Dear Ms. Allen:

Subject: Coastal Management Fellowship Program

On behalf of the City and County of Honolulu, Department of Planning and Permitting, I am pleased to express my strong support for this proposal for the placement of a Coastal Management Fellow with the State of Hawaii Coastal Zone Management (CZM) Program, as part of NOAA's Coastal Management Fellowship and Digital Coastal Fellowship Programs. The Hawaii CZM Program is the State of Hawaii's resource management policy umbrella and provides a coordinated and effective focus to the laws, ordinances, and rules dealing with coastal resources within a framework of cooperation among federal, state, and local levels. The Department of Planning and Permitting strongly supports CZM's work to promote statewide resilience to climate change through the State's planning framework and the State's Ocean Resources Management Plan.

Ensuring that the State's policy development accurately reflects county challenges and needs is essential to supporting our offices, as the local planning entities that carry out county-level implementation. Thus, authoritative data are fundamental for planning and decision-making for the State of Hawaii. Centering diversity, equity, inclusion and justice in coastal hazards adaptation planning is serious in the State of Hawaii and the Coastal Management Fellow will offer a comprehensive understanding of the statewide shoreline challenges, identifying communities that may be most impacted by coastal hazards.

I fully support CZM's proposal for a Coastal Management Fellow to provide accurate coastal and social data to inform policy decisions for a more resilient Hawaii.

Please contact me at dean.uchida@honolulu.gov with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Dean Uchida".

Dean Uchida
Director



STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF EMERGENCY MANAGEMENT
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96818-4495

October 14, 2021

Ms. Margaret Allen
Senior Coastal Management Specialist
Coastal Management Fellowship Coordinator
NOAA Office for Coastal Management
2234 South Hobson Avenue
Charleston, SC 20405

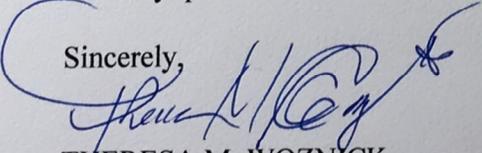
Dear Ms. Allen:

On behalf of the Hawaii Emergency Management Agency (HI-EMA), I am pleased to express my strong support for this proposal for the placement of a Coastal Management Fellow with the State of Hawaii Coastal Zone Management (CZM) Program, as part of NOAA's Coastal Management Fellowship and Digital Coastal Fellowship Programs. The Hawaii CZM Program is the State of Hawaii's resource management policy umbrella and provides a coordinated and effective focus to the laws, ordinances, and rules dealing with coastal resources within a framework of cooperation among federal, state, and local levels. HI-EMA strongly supports CZM's work to promote statewide resilience to climate change in alignment with the State's Multi-Hazard Mitigation Plan.

Authoritative data are fundamental for planning and decision-making for the State of Hawaii. HI-EMA will greatly benefit from data that informs local, Hawaii-specific planning and climate adaptation projects to build statewide resilience. Centering diversity, equity, inclusion and justice in coastal hazards adaptation planning is serious in the State of Hawaii and the Coastal Management Fellow will offer a comprehensive understanding of the shoreline, identifying communities most vulnerable to coastal hazards. The Hawaii CZM Program has been a strong partner to developing projects that support HI-EMA's priorities as they relate to coastal hazards.

I fully support CZM's proposal for a Coastal Management Fellow to provide accurate coastal and social data to inform policy decisions for a more resilient Hawaii. Please contact me at theresa.m.woznick@hawaii.gov with any questions.

Sincerely,


THERESA M. WOZNICK
State Hazard Mitigation Officer
Hawaii Emergency Management Agency

DEPARTMENT OF PLANNING

KA'ĀINA HULL, DIRECTOR

JODI A. HIGUCHI SAYEGUSA, DEPUTY DIRECTOR



DEREK S.K. KAWAKAMI, MAYOR
MICHAEL A. DAHLIG, MANAGING DIRECTOR

October 14, 2021

Ms. Margaret Allen
Senior Coastal Management Specialist
Coastal Management Fellowship Coordinator
NOAA Office for Coastal Management
2234 South Hobson Avenue
Charleston, SC 20405

Dear Ms. Allen,

On behalf of the County of Kauai's Department of Planning, I am pleased to express my strong support for this proposal for the placement of a Coastal Management Fellow with the State of Hawaii Coastal Zone Management (CZM) Program, as part of NOAA's Coastal Management Fellowship and Digital Coastal Fellowship Programs. The Hawaii CZM Program is the State of Hawaii's resource management policy umbrella and provides a coordinated and effective focus to the laws, ordinances, and rules dealing with coastal resources within a framework of cooperation among federal, state, and local levels. The County of Kauai's Department of Planning strongly supports CZM's work to promote statewide resilience to climate change through the State's planning framework and the State's Ocean Resources Management Plan.

Ensuring that the State's policy development accurately reflects county challenges and needs is essential to supporting our offices, as the local planning entities that carry out county-level implementation. Thus, authoritative data are fundamental for planning and decision-making for the State of Hawaii. Centering diversity, equity, inclusion and justice in coastal hazards adaptation planning is serious in the State of Hawaii and the Coastal Management Fellow will offer a comprehensive understanding of the statewide shoreline challenges, identifying communities that may be most impacted by coastal hazards.

I fully support CZM's proposal for a Coastal Management Fellow to provide accurate coastal and social data to inform policy decisions for a more resilient Hawaii. Please contact me at (808) 241-4057 or jhiguchi@kauai.gov with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Jodi Higuchi Sayegusa".

Jodi Higuchi Sayegusa
Deputy Director