Testimony Presented Before the
House Committee on Finance
Thursday, March 27, 2025 at 2:00 p.m.
By
Charles "Chip" Fletcher, PhD
Interim Dean
School of Ocean and Earth Science and Technology
And
Michael Bruno, PhD
Provost
University of Hawaii at Mānoa

SB 657 SD1 HD1 - RELATING TO THE CENTER FOR CLIMATE RESILIENT DEVELOPMENT

Chair Yamashita, Vice Chair Takenouchi, and Members of the Committee:

The University of Hawai'i School of Ocean and Earth Science and Technology (SOEST) strongly supports Senate Bill 657 SD1 HD1, which appropriates funds for SOEST to establish and operate a Center for Climate Resilient Development.

The proposal set forth in Senate Bill 657 to create a Center for Climate Resilient Development at the University of Hawai'i at Mānoa represents a crucial step in safeguarding the future of Hawai'i.

Building on the SOEST's proven expertise in climate modeling, the Center will provide actionable data on sea level rise, coastal erosion, wave flooding, groundwater inundation, storm water drainage, and more—already indispensable to Hawai'i's real estate, environmental review, and county resilience laws. Further, laws that refer to the Sea Level Rise Exposure Area include the clause "or its successor," contemplating updates to SOEST's modeling products that cannot be completed without adequate resources.¹

The following is a list of laws and policies that depend on SOEST data.

- Mandatory disclosure of sea level rise in real estate transactions
 - Hawai'i Revised Statutes § 508D-15(5)
- Required analysis of sea level rise in the Hawai'i Environmental Policy Act
 - Hawai'i Revised Statutes Chapter 343
 - Hawai'i Administrative Rules §§ 11-200.1-13, -18, -21, -24
- Shoreline Setback Ordinances in Kaua'i County, Maui County, and the City & County of Honolulu
 - Hawai'i Revised Statutes § 205A-45
 - Maui County Administrative Rules, Title 12 Chapter 203
 - o Revised Ordinances of Honolulu, Chapter 26
 - Kaua'i County Code, Title IV, Chapter 8, Article 27

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¹ See e.g. Haw. Rev. Stat. § 508D-15(a)(5).

- Special Management Area in Maui County and the City & County of Honolulu
 - Hawai'i Revised Statutes §§ 205A-21 et seq.
 - Maui County Administrative Rules, Title 12 Chapter 202
 - Revised Ordinances of Honolulu, Chapter 25
- Kaua'i County Sea Level Rise Constraint District
 - Kaua'i County Code, Title IV, Chapter 8, Article 12.5

In 2017, the Hawai'i Climate Change Mitigation and Adaptation Commission formally adopted the Hawai'i Sea Level Rise Vulnerability and Adaptation report based on SOEST research.² Since then, SOEST data and modeling have been utilized in many state and local reports and plans. City and County of Honolulu and Maui County Mayors have also issued proclamations requiring their respective departments to incorporate sea level rise considerations into their planning and decision making.³

Currently, research at SOEST relies heavily on unstable federal grants, putting this vital work at risk without consistent funding. Recently, the Trump Administration implemented a pause on all federal grants, indicating a concerning trend for an administration that has shown limited interest in funding climate change-related research. SOEST research currently receives grant funding from the Department of Defense which cut \$580 million in spending last week⁴ and the Defense Secretary has "pledged to slash many environmental programs and prohibit military officials from discussing climate change."⁵

While Senate Bill 657 SD1 HD1 requests a one-time appropriation for this legislative session, SOEST advocates for an ongoing funding mechanism.

With \$3 million annually, the Center will solidify Hawai'i's capacity to address evolving climate hazards, collaborate with communities statewide, and champion equitable, sustainable development to protect the islands' people, ecosystems, and future.

The utilization of general fund dollars for climate and sea level rise research offers significant long-term cost savings. While the initial investment may seem substantial, it pales in comparison to the future expenses that the state will inevitably face if it fails to adequately prepare for the impacts of climate change.

Investing in research now allows for the development of data-driven strategies to mitigate these impacts, protecting critical infrastructure and minimizing damage from severe weather events. Every dollar spent proactively on research can save the state significantly more in the form of avoided future infrastructure repairs, emergency services costs, and the immeasurable cost of human suffering during climate-related disasters. This proactive approach is not only fiscally responsible but also demonstrates a commitment to the safety and well-being of Hawai'i's residents.

² Hawai'i Climate Change Mitigation and Adaptation Commission. 2017. Hawai'i Sea Level Rise Vulnerability and Adaptation Report. Prepared by Tetra Tech, Inc. and the State of Hawai'i Department of Land and Natural Resources, Office of Conservation and Coastal Lands, under the State of Hawai'i Department of Land and Natural Resources Contract No: 64064.

³ Off. of the Mayor, City and Cty. of Honolulu, Exec. Directive No. 18-2 (Jul. 16, 2018); Off. of the Mayor, Cty. of Mau Honolulu, Exec. Proclamation (Feb. 22, 2018).

⁴ Matthew Olay, *DOD to Cut \$580 Million in Spending*, DOD NEWS (Mar. 20, 2025).

⁵ Kevin Knodell, *Trump's Pentagon seeks spending on Pacific forces, cuts to environmental and cultural programs*, STAR ADVERTISER (Mar. 23, 2025).

In conclusion, passing SB 657 SD1 HD1 and funding climate and sea level rise research at SOEST, whether through general fund, or through some other means, is a strategic investment in the state's future. This vital research will help to protect the natural beauty that attracts tourists and generates significant revenue, while also mitigating future costs associated with climate change impacts. This investment is not merely an expenditure, but a crucial step towards ensuring Hawai'i's environmental, economic, and social resilience in the face of an increasingly uncertain future.

We urge your passage of SB 657 SD1 HD1, provided its adoption does not impact priorities as indicated in our Board of Regents Approved Budget. Thank you for the opportunity to testify on this measure.

JOSH GREEN, M.D. GOVERNOR OF HAWAI'I KE KIA'ĂINA O KA MOKU'ĂINA 'O HAWAI'I



STATE OF HAWAI'I DEPARTMENT OF HEALTH KA 'OIHANA OLAKINO

P. O. BOX 3378 HONOLULU, HI 96801-3378 WRITTEN TESTIMONY

Testimony in SUPPORT of SB0657 RELATING TO THE CENTER FOR CLIMATE RESILIENT DEVELOPMENT.

COMMITTEE ON FINANCE

Rep. Kyle T. Yamashita, Chair Rep. Jenna Takenouchi, Vice Chair

Hearing Date: 3/27/2025 Room Number: 415

- 1 **Fiscal Implications:** This measure will impact the priorities identified in the Governor's
- 2 Executive Budget Request for the Department of Health's (Department) appropriations and
- 3 personnel priorities.
- 4 **Department Testimony:** The Department supports bill SB0657 and recognizes that the
- 5 changing climate is a worldwide environmental health problem that directly impacts the health
- 6 and safety of Hawaii's people, communities, and natural environment. Potential human health
- 7 effects resulting from climate change are broad reaching and include dangers from increased
- 8 natural disasters and flooding, changing vector-borne infectious diseases and food related
- 9 infections, as well as impacts on mental health and well-being. Hawaii has been a national leader
- in taking steps to increase resilience and mitigate the negative impacts of climate change.
- However, much of these efforts have been directed at planning and infrastructure and have not
- 12 focused on preventing the negative impacts of climate change on the community.

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- 14 The need to build out further capacity throughout Hawai'i to address climate change impact to
- 15 the environment and community resiliency is of the utmost importance. SOEST has been an
- integral partner to the Department for providing modeling on flooding projections, heat
- projections, hurricane storm surge and various others that are utilized for data to action. The

- 1 creation of a center that provides education for the community and recommendations for projects
- would bolster the state's efforts to further protect the community from climate change hazards.

3

4 Thank you for the opportunity to testify on this measure.



STATE OF HAWAI'I OFFICE OF PLANNING & SUSTAINABLE DEVELOPMENT

JOSH GREEN, M.D.

SYLVIA LUKE LT. GOVERNOR

MARY ALICE EVANS

235 South Beretania Street, 6th Floor, Honolulu, Hawai'i 96813 Mailing Address: P.O. Box 2359, Honolulu, Hawai'i 96804

Telephone: (808) 587-2846 Fax: (808) 587-2824 Web: https://planning.hawaii.gov/

Statement of MARY ALICE EVANS, Director

before the HOUSE COMMITTEE ON FINANCE

Thursday, March 27, 2025, 2:00 PM State Capitol, Conference Room 308

in consideration of SB 657 SD 1 HD1 RELATING TO THE CENTER FOR CLIMATE RESILIENT DEVELOPMENT.

Chair Yamashita, Vice Chair Takenouchi, and Members of the House Committee on Finance:

The purpose of SB 657 SD 1 HD 1 is to appropriate funds for the University of Hawai'i, School of Ocean and Earth Science and Technology (SOEST) to establish and operate a Center for Climate Resilient Development which will provide climate data and modeling on coastal hazards such as sea level rise, coastal erosion and groundwater inundation.

The Office of Planning and Sustainable Development (OPSD) **supports** this bill, provided that its passage does not replace or adversely impact administrative budget priorities, as the availability of up-to-date and reliable information is a critical component to ensure that decision making along the shoreline is informed by science. Building on SOEST's proven expertise in climate modeling, the Center will provide actionable data on sea level rise, coastal erosion, wave flooding, groundwater inundation, and more—already indispensable to Hawai'i's real estate, environmental review, and county resilience laws. With dedicated funding, the Center will be able to provide foundational data for planning and managing our coastal areas.

Thank you for the opportunity to testify on this measure.



STATE OF HAWAI'I HAWAI'I CLIMATE CHANGE MITIGATION & ADAPTATION COMMISSION

POST OFFICE BOX 621 HONOLULU, HAWAII 96809 Co-Chairs: Chair, DLNR Director, OPSD

Commissioners: Chair, Senate AEN

Chair, Senate WTL
Chair, House EEP
Chair, House WAL
Chairperson, HTA
Chairperson, DOA
CEO, OHA
Chairperson, DHLL
Director, DBEDT
Director, DOT
Director, DOH
Chairperson, DOE
Director, C+C DPP
Director, Maui DP
Director, Hawai'i DP
Director, Kaua'i DP
The Adjutant General
Manager, CZM

Testimony of LEAH LARAMEE

Climate Change Coordinator on behalf of Climate Change Mitigation and Adaptation Commission Co-Chair Mary Alice Evans and Co-Chair Dawn N.S. Chang

Before the House Committee on FINANCE

Thursday, March 27, 2025 2:00 PM State Capitol, Conference Room 308 & Videoconference

In consideration of SENATE BILL 657, SD 1, HD 1 RELATING TO THE CENTER FOR CLIMATE RESILIENT DEVELOPMENT

Senate Bill 657, SD1, HD1, appropriates funds for the School of Ocean and Earth Science and Technology within the University of Hawai'i at Manoa to establish and operate a Center for Climate Resilient Development.

The Hawai'i Climate Change Mitigation and Adaptation Commission (Commission) supports this bill provided that its passage does not replace or adversely impact priorities indicated in the Executive Budget request. The Hawai'i Climate Change Mitigation and Adaptation Commission consists of a multi-jurisdictional effort between 20 state departments, legislative committees, and counties.

The Commission works closely with the School of Ocean and Earth Science and Technology (SOEST) and uses their sea level rise data and coastal erosion modeling to develop the 2017 and 2022 State Sea Level Rise and Adaptation Reports, as well as the resulting policies.

With federal funding uncertain for work in the field of climate change, stable state funding is needed. The state must continue to invest in climate science and sea level rise modeling to ensure there is scientifically based data to guide decision making in coastal development.

Mahalo for the opportunity to testify in support of this measure.

JOSH GREEN, M.D. GOVERNOR I KE KIA'ĀINA

SYLVIA LUKELIEUTENANT GOVERNOR | KA HOPE KIA ĀINA





STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I DEPARTMENT OF LAND AND NATURAL RESOURCES KA 'OIHANA KUMUWAIWAI 'ĀINA

P.O. BOX 621 HONOLULU, HAWAII 96809 DAWN N.S. CHANG

CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT

RYAN K.P. KANAKA'OLE FIRST DEPUTY

CIARA W.K. KAHAHANE DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE
MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES
ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

Testimony of DAWN N. S. CHANG Chairperson

Before the House Committee on FINANCE

Thursday, March 27, 2025 2:00 p.m. State Capitol, Conference Room 308 & Videoconference

In consideration of SENATE BILL 657, SENATE DRAFT 1, HOUSE DRAFT 1 RELATING TO THE CENTER FOR CLIMATE RESILIENT DEVELOPMENT

Senate Bill 657, Senate Draft 1, House Draft 1 proposes to appropriate funds for the School of Ocean and Earth Science and Technology within the University of Hawai'i to establish and operate a Center for Climate Resilient Development. **The Department of Land and Natural Resources (Department) supports this bill.**

The Department has a close working relationship with the School of Ocean and Earth Science and Technology (SOEST) and has used the sea level rise data and coastal erosion modeling to help develop the 2017 and 2022 State Sea Level Rise and Adaptation Reports as well as the resulting policies.

The work conducted at SOEST has largely been funded by federal grants, which can be subject to the influence of changing national priorities. Climate science and sea level rise modeling continue to advance. If the State wishes to continue to base its policies on science, the Department believes that we should invest directly in the development and support of scientific resources.

Mahalo for the opportunity to provide testimony in support of this bill.

OFFICE OF CLIMATE CHANGE SUSTAINABILITY AND RESILIENCY

KE KE'ENA LOLI ANIAU MĀLAMA 'ĀINA A ME KE OLA LOA CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 11th FLOOR • HONOLULU, HAWAI'I 96813 PHONE: (808) 768-2277 • EMAIL: resilientoahu@honolulu.gov • INTERNET: www.resilientoahu.org

RICK BLANGIARDI MAYOR *MFIA*



BENJAMIN SULLIVAN
EXECUTIVE DIRECTOR &
CHIEF RESILIENCE OFFICER
PO'O HO'OKŌ & KAHU OLA LOA

KEALOHA FOX
DEPUTY DIRECTOR &
CHIEF RESILIENCE OFFICER
HOPE PO'O & HOPE KAHU OLA LOA

THURSDAY, MARCH 27, 2025, 2:00 P.M.

STATE OF HAWAI'I HOUSE COMMITTEE ON FINANCE

TESTIMONY ON SENATE BILL 657, SD1, HD1 RELATING TO THE CENTER FOR CLIMATE RESILIENT DEVELOPMENT

BY,

KEALOHA FOX, Ph.D.
DEPUTY DIRECTOR AND DEPUTY CHIEF RESILIENCE OFFICER
OFFICE OF CLIMATE CHANGE, SUSTAINABILITY AND RESILIENCY

Dear Chair Yamashita, Vice Chair Takenouchi, and Members of the Committee:

The City and County of Honolulu ("City") Office of Climate Change, Sustainability and Resiliency ("Resilience Office") **supports** SB657, SD1, HD1, which appropriates funds for the School of Ocean and Earth Science and Technology (SOEST) within the University of Hawai'i at Mānoa to establish and operate a Center for Climate Resilient Development.

The City has greatly benefited from the research, data, and modeling produced by SOEST, including those utilized in the City's recent update to shoreline setback and special management area regulations to better safeguard beaches and adjacent development in the face of increasing climate change impacts, including sea level rise and coastal erosion. Additionally, the City relies upon SOEST's partnership, data, and modeling in planning efforts to increase the climate resiliency of infrastructure in Waikīkī and Iwilei, as well as lower climate hazard risk for communities in the Koʻolaupoko region. Climate impacts will continue to increase, and SOEST remains a critical partner and resource in our ability to plan for and address these impacts on our communities. Secure investment in these scientific resources will be necessary to effectively do so into the future.

Mahalo for the opportunity to testify in support of SB657, SD1, HD1.



Email: communications@ulupono.com

HOUSE COMMITTEE ON FINANCE Thursday, March 27, 2025 — 2:00 p.m.

Ulupono Initiative <u>supports</u> SB 657 SD 1 HD 1, Relating to Center for Climate Resilient Development.

Dear Chair Yamashita and Members of the Committee:

My name is Micah Munekata, and I am the Director of Government Affairs at Ulupono Initiative. We are a Hawai'i-focused impact investment firm that strives to improve the quality of life throughout the islands by helping our communities become more resilient and self-sufficient through locally produced food, renewable energy and clean transportation choices, and better management of freshwater resources.

Ulupono <u>supports</u> **SB 657 SD 1 HD 1**, which appropriates funds for the School of Ocean and Earth Science and Technology (SOEST) within the University of Hawai'i at Manoa to establish and operate a Center for Climate Resilient Development.

Hawai'i faces unique and pressing challenges from climate change that require coordinated, science-based solutions. The proposed Center would fill a considerable gap by providing dedicated capacity for community-focused climate resilience planning.

SOEST is ideally positioned to house this Center, given its established expertise in climate modeling and track record of working directly with communities. Its existing modeling capabilities are already essential to the state's climate adaptation efforts, including:

- Mandatory sea level rise disclosure requirements for real estate transactions
- Environmental review processes
- County-level shoreline setback and special management area regulations

However, this vital research currently relies on vulnerable soft money funding. By providing stable state funding of \$3 million annually, this bill would protect and enhance Hawai'i's climate science capabilities at a time when federal support for climate research faces uncertainty.

Thank you for the opportunity to testify.

Respectfully,

Micah Munekata Director of Government Affairs Officers

Kaipo Kekona State President

Anabella Bruch Vice-President

Maureen Datta Secretary

Reba Lopez Treasurer

Chapter Presidents

Clarence Baber Kohala, Hawai'i

> Tony Vera East Hawai'i

Puna, Hawai'i

Andrea Drayer Ka'ū, Hawai'i

Maureen Datta Kona, Hawai'i

Fawn Helekahi-Burns Hāna, Maui

> Mason Scharer Haleakalā, Maui

Kaiea Medeiros Mauna Kahālāwai, Maui

> Kaipo Kekona Lahaina, Maui

Kilia Avelino-Purdy Moloka'i

> Negus Manna Lāna'i

India Clark North Shore, O'ahu

Christian Zuckerman Wai'anae, O'ahu

Ted Radovich Waimānalo, Oʻahu

Vincent Kimura Honolulu, Oʻahu

Natalie Urminska Kaua'i



Aloha Chair Yamashita, Vice Chair Takenouchi, and Members of the House Finance Committee.

The Hawai'i Farmers Union is a 501(c)(5) agricultural advocacy nonprofit representing a network of over 2,500 family farmers and their supporters across the Hawaiian Islands. **HFU supports SB657.**

Investing in the establishment of a Center for Climate Resilient Development at the University of Hawaii is a significant advancement for addressing the pressing challenges faced by Hawaii's agricultural community due to climate change. This initiative is not only essential for the present circumstances but is crucial for preparing our state's farmers for an unpredictable future. By focusing on resilience, the Center can develop innovative strategies and provide the necessary tools and resources to farmers, empowering them to adapt to diverse climate conditions and mitigate the adverse effects of climate events on their livelihoods.

Hawaii's unique ecosystem and geographical conditions demand tailored solutions in agriculture, which the Center could facilitate through dedicated research and collaborations. The Center will foster partnerships between scientists, policymakers, and farmers to develop informed, science-based practices that enhance productivity while prioritizing environmental stewardship. By integrating local wisdom with cutting-edge research, this initiative will ensure that agricultural practices remain sustainable and economically viable, ultimately strengthening Hawaii's food security and contributing positively to the broader global efforts in combating climate change. This integrated approach will equip our farmers with the resilience needed to thrive in the face of impending climatic shifts.

Mahalo for the opportunity to testify.

Hunter Heaivilin Advocacy Director Hawai'i Farmers Union



To: The Honorable Chair Kyle Yamashita, the Honorable Vice Chair Jenna Takenouchi, and Members of the Committee on Finance.

From: The Climate Protectors Hawai'i (by Ted Bohlen)

Re: Hearing SB657 SD1 HD1 RELATING TO THE CENTER FOR CLIMATE RESILIENT DEVELOPMENT

Hearing: Thursday March 27, 2025, 2:00 p.m. Rm. 308

Aloha Chair Yamashita, Vice Chair Jenna Takenouchi, and Members of the Committee on Finance!

The Climate Protectors Hawai'i seeks to educate and engage the local community in climate change action.

The Climate Protectors Hawai'i STRONGLY SUPPORTS SB657 SD1 HD1!

Hawai'i is extremely vulnerable to hazards from climate warming, but no single agency or entity is responsible for developing climate resiliency plans.

The University of Hawai'i School of Ocean and Earth Science and Technology (SOEST) has been working with communities to identify some of those vulnerabilities: flooding from hurricanes and sea level rise, heat projections, and wildfires, with expertise in ignition modeling. SOEST has developed modeling for the State's mandatory disclosure of sea level rise in real estate transactions and for environmental reviews. Contracts and federal money that SOEST has used are likely to be unavailable in the next few years. Based on its experience, SOEST would appear to be the best single entity in Hawai'i to develop climate resiliency plans.

This bill would establish a Center for Climate Resilient Development in UH SOEST. This Center would provide communities with guidance on climate hazards, risks, and vulnerabilities and recommend capital improvement projects and shovel-ready projects to build resiliency.

Climate Protectors Hawai'i is very concerned that Hawai'i minimize the future costs of adapting for climate warming hazards and vulnerabilities. Hawai'i can avoid a great deal of higher future costs of climate change by careful planning. It makes sense to have a single entity responsible for developing climate resiliency plans. Based on its experience, SOEST would appear to be the best single entity in Hawai'i to develop climate resiliency plans.

Please pass this bill to establish a Center for Climate Resilient Development in UH SOEST.

Mahalo!

Hawai'i Reef and Ocean Coalition (by Ted Bohlen)

<u>SB-657-HD-1</u> Submitted on: 3/24/2025 3:45:16 PM

Testimony for FIN on 3/27/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
B.A. McClintock	Individual	Support	Written Testimony Only

Comments:

Please support this important bill. Mahalo.

<u>SB-657-HD-1</u> Submitted on: 3/25/2025 10:21:42 PM

Testimony for FIN on 3/27/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Chanara Caey Richmond	Individual	Oppose	Written Testimony Only

Comments:

I oppose SB657. Chanara Richmond. HD42

SB-657-HD-1

Submitted on: 3/26/2025 11:10:02 AM Testimony for FIN on 3/27/2025 2:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Dr. Kioni Dudley	Individual	Support	Remotely Via Zoom

Comments:

Aloha, Chair Yamashita, Vice Chair and Finance Committee Members,

I am Dr. Kioni Dudley. I created a one-hour video titled "The New Hurricane Theat to Hawaii," which showed 10 times on all local TV stations In September.

I strongly support Senate Bill 657. While SOEST has been primarily concerned with Ocean related problems, this would give them the opportunity to give much more focus to hurricane mitigation. The Center for Climate Resilient Development that it would create at UHManoa would increase the classes in climate change mitigation and resilience, making our younger generations much more aware of the problems, and preparing them to take on solutions.

I ask you to pass this bill.

Aloha, Chair Yamashita, Vice Chair Takenouchi, and Members of the House Committee on Finance,

My name is Chip Fletcher, I am the Interim Dean of the University of Hawai'i School of Ocean and Earth Science and Technology, "SOEST," and I am submitting this written testimony in **STRONG SUPPORT of Senate Bill 657**.

The following is intended as an addendum to the official testimony submitted by the University and is provided to give your House Committee on Finance additional information to support our request for maximum transparency.

The requested \$3 million would go to support salaries for researchers at SOEST:

- Four PhD level scientists;
- Five master's degree level researchers;
- Six graduate student researchers; and
- One administrator.

I (Chip) come at no cost to the project. Please find a full budget breakdown on the following three pages.

For a single year, our salaries (+ fringe) alone without university overhead, travel costs, or any other supplies total \$1,841,884.

Including the 45.5 percent overhead cost that the University charges, a single year of our operation without travel or any other supplies total \$2,679,941.

Each one of these young scientists is either from Hawai'i, or has made their home in Hawai'i, and are working for the betterment of life in Hawai'i. This is purposely a highly diverse group consisting dominantly of women, Native Hawaiians, Pacific Islanders, Hawai'i-born scientists, and all of them are working to make their permanent lives in Hawai'i as scientists.

As it stands, our research is entirely reliant on federal grant funding, and as you lawmakers well know, the new administration is using its best efforts to stop funding and even claw back money allocated for climate research.

We are not asking for a one-time supplement. We are asking that this highly applied science be supported by state funds perennially. In exchange we are highly responsive to requests from state and county agencies, NGO's, consultants, and other groups focusing on climate adaptation. We will happily submit an annual report to the legislature, and provide an annual climate change briefing of the latest information relevant to Hawaii.

We sincerely appreciate your House Committee on Finance considering this measure and are available for any questions.

Very Respectfully,

C. Fletcher

CUMULATIVE

- Assistant Researcher	Salary 8,240	Months 12.0	98,880	98,880
Total Senior Personnel			98,880	98,880
	Salary	Months		
- Graduate Assistant	2,955	12.0	35,460	35,460
- Overload	3,224	3.0	9,672	9,672
- Research Specialist	9,329	12.0	111,948	111,948
Geospatial Anlyst Mgr	12,226	12.0	146,712	146,712
- Oper Proj Mgr	12,226	12.0	146,712	146,712
- Research Coastal Geologist	12,408	12.0	148,896	148,896
- Geospatial Analyst	6,792	12.0	81,504	81,504
Graduate Assistant	2,955	12.0	35,460	35,460
- Overload	3,224	3.0	9,672	9,672
Clim Change & Res Pol Anlyst	8,051	12.0	96,612	96,612
- Graduate Assistant	2,955	12.0	35,460	35,460
- Overload	3,224	3.0	9,672	9,672
- Geospat Modeling Anlyst	6,792	12.0	81,504	81,504
Graduate Assistant	2,955	12.0	35,460	35,460
- Overload	3,224	3.0	9,672	9,672
r, Noah - Graduate Assistant	2,955	12.0	35,460	35,460
Noah - Overload	3,224	3.0	9,672	9,672
- Graduate Assistant	2,955	12.0	35,460	35,460
- Overload	3,224	3.0	9,672	9,672
- Administrative Officer	6,033	12.0	72,396	72,396
- SOEST Climate Modeling Anlyst	7,256	12.0	87,072	87,072
Total Personnel			1,244,148	1,244,148
Total Salaries & Wages			1,343,028	1,343,028
- Assistant Researcher			62,759	62,759

	0	0
- Graduate Assistant	4,695	4,695
- Overload	157	157
- Research Specialist	39,674	39,674
- Geospatial Anlyst Mgr	51,995	51,995
- Oper Proj Mgr	51,995	51,995
- Research Coastal Geologist	94,504	94,504
- Geospatial Analyst	28,885	28,885
- Graduate Assistant	4,695	4,695
- Overload	157	157
- Clim Change & Res Pol Anlyst	34,239	34,239
- Graduate Assistant	4,695	4,695
- Overload	157	157
- Geospat Modeling Anlyst	28,885	28,885
- Graduate Assistant	4,695	4,695
- Overload	157	157
- Graduate Assistant	4,695	4,695
- Overload	157	157
- Graduate Assistant	4,695	4,695
- Overload	157	157
- Administrative Officer	45,950	45,950
- SOEST Climate Modeling Anlyst	30,858	30,858
Total Fringe Benefits	498,856	498,856
Total Salaries, Wages & Fringe Benefits	1,841,884	1,841,884
Domestic Travel	0	0
International Travel	0	0
Total Travel Cost	0	0
	0	0
	0	0
	0	0
	0	0

	Other Direct Cost	0	0
	Total Direct Cost	1,841,884	1,841,884
Indirect Cost Base		1,841,884	1,841,884
Indirect Cost (45.5% of MTDC)		838,057	838,057
	Total Budget	2,679,941	2,679,941