

OFFICE OF PLANNING STATE OF HAWAII

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813 Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804 DAVID Y. IGE GOVERNOR

DIRECTOR OFFICE OF PLANNING

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

Statement of LEO R. ASUNCION Planning Program Administrator, Office of Planning before the SENATE COMMITTEES ON WATER AND LAND & AGRICULTURE AND ENVIRONMENT Friday, March 15, 2019

3:00 PM State Capitol, Conference Room 224

in consideration of HB 461, HD1 RELATING TO CLIMATE CHANGE.

Chairs Kahele and Gabbard, Vice Chairs Keith-Agaran and Ruderman, and Members of the Senate Committees on Water and Land and Agriculture and Environment.

The Office of Planning (OP) offers the following comments to HB 461, HD1, which directs the Hawaii Climate Change Mitigation and Adaptation Commission (Climate Commission) to investigate managed retreat options for critical public infrastructure in impacted sea level rise areas.

The OP Coastal Zone Management Program (OP CZM) recently published its Final Report on *Assessing the Feasibility and Implications of Managed Retreat Strategies for Vulnerable Coastal Areas*, which is available on the OP website (www.planning.hawaii.gov). The Final Report includes an assessment of the feasibility of retreating critical public infrastructure, which may be pertinent to any analysis contemplated by HB 461, HD1. OP CZM is committed to furthering the managed retreat analysis and working collaboratively with agency and stakeholder partners, including the Climate Commission.

Thank you for the opportunity to comment on this matter.

DAVID Y. IGE GOVERNOR OF HAWAII





STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621 HONOLULU, HAWAII 96809

Testimony of SUZANNE D. CASE Chairperson

Before the Senate Committees on WATER AND LAND and AGRICULTURE AND ENVIRONMENT

Friday, March 15, 2019 3:00pm State Capitol, Conference Room 224

In consideration of HOUSE BILL 461, HOUSE DRAFT 1 RELATING TO SEA LEVEL RISE

House Bill 461, House Draft 1 proposes to support and direct the Hawaii Climate Change Mitigation and Adaptation Commission to further progress towards addressing the impacts of sea level rise, to identify critical public infrastructure in impacted areas, and to provide policy direction to the legislature about how to move forward with concrete strategies for mitigation and adaptation to sea level rise. The Department of Land and Natural Resources (Department) strongly supports this measure provided that its passage does not replace or adversely impact priorities indicted in the Executive Supplemental Budget request.

In 2017, the Governor signed Act 32 establishing the Hawaii Climate Change Mitigation and Adaptation Commission (Climate Commission). Act 32 also established a Climate Change Mitigation and Adaptation Coordinator (Climate Coordinator) position which expires at the end of the FY19, although the Commission does not.

In the brief 18 months of its existence, the Climate Commission has had a tremendous impact on state and county policies and has established a new standard for state level action on climate change mitigation and adaptation. In its first 18 months, the Climate Commission and its Climate Coordinator have accomplished a great deal of work:

• Adopted a cutting edge Sea Level Rise Adaptation and Mitigation Report in accordance with Act 32, SLH, 2017. This first statewide assessment of Hawaii's vulnerability to sea level rise uses the latest science to characterize threats and risks to our coastal areas and proposes a series of recommendations for adaptation. The Climate Commission passed five of those recommendations that are specifically

SUZANNE D. CASE CHAIRPERSON BOARD OF LAND AND NATURAL RESOURCES COMMISSION ON WATER RESOURCE MANAGEMENT

> ROBERT K. MASUDA FIRST DEPUTY

M. KALEO MANUEL 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 aimed at State and counties to tackle keystone issues surrounding sea level rise. These actions include 1) requiring real estate disclosure of sea level rise hazards, 2) redirecting all new development away from beach areas, 3) advising counties to incorporate consideration of areas vulnerable to sea level rise exposure into their general and community plans, 4) encouraging agencies and non-governmental utility providers to identify and prioritize assets within areas characterized as vulnerable to sea level rise and to report back to the Climate Commission annually regarding their progress towards implementing adaptation measures, and 5) supporting legislation that funds State programs to meet goals and provide resources to assist in planning and implementation for sea level rise and related impacts. The 2019 legislative session will be a critical turning point that will potentially provide pathways in which sea level rise adaption measures can be executed at the agency level.

- Identified priority areas to help reduce emissions from ground transportation. These include a strong statement on carbon pricing, along with addressing system efficiencies through transportation and parking studies, electric vehicle (EV) infrastructure deployment through government carshare and other programs, and a PSA campaign to engage residents and visitors in the transition to clean transportation.
- **Finalized a mission statement to bind together the above priorities**. The Commission aims "[t]o promote ambitious, climate-neutral, culturally responsive strategies for climate change adaptation and mitigation in a manner that is clean, equitable and resilient."
- Developed a climate "brand" for Hawaii through a new website and social media presence to inform local and global audiences of Hawaii's climate response. The web portal launched in June helps to tie together all State efforts on Climate Change—adaptation, greenhouse gas sequestration, the greenhouse gas inventory, Hawaii Clean Energy Initiative, Sustainability initiatives, and the State Energy Office sites. The social media accounts attempt to provide insights into the Commission's ongoing work.
 - **Projected a national presence for climate response.** Hawaii works with the 20-Governor US Climate Alliance (USCA) that was formed as a response to the Federal Administration's withdrawal from the Paris Agreement. Hawaii is involved in various working groups, including for resilience, transportation, natural and working lands, and so on. The Climate Coordinator co-chairs, along with staff from Minnesota and Washington, the transportation working group and brings lessons from other states to Hawaii.
- **Hosted a dynamic statewide First Annual Climate Conference** bringing subject matter experts together from the mainland U.S. and from Hawaii, to engage with researchers, the interested public, industry and government in an effort to help

resolve the most difficult issues facing the state and set the tone for the work of the Commission in 2019.

House Bill 461, House Draft 1 would allow the Climate Coordinator to continue to support the Climate Commission going forward, specifically:

- (1) Conduct a thorough inventory of critical public infrastructure, existing or planned, both man-made and natural, and determine if the infrastructure is in or near an area that is vulnerable to the impacts of sea level rise, and analyze predicted impacts of sea level rise to identified vulnerable infrastructure;
- (2) Identify priority areas throughout the State that will be subject to high rates of coastal erosion and sea level rise, including public infrastructure and private properties;
- (3) Design and propose sea level rise impact zone maps to be adopted by the legislature and provide a guidepost for future sea level rise adaptation policies;
- (4) Work with state and county agencies to develop sea level rise adaptation plans in accordance with the Sea Level Rise Vulnerability and Adaptation Report; and
- (5) Make specific recommendations to the legislature for policies that may be adopted for managed retreat, relocation of infrastructure, or mitigation measures to minimize the impacts of sea level rise for public infrastructure and private properties, including information regarding how these recommendations may be funded and consideration of sea level rise policies implemented in other states and nations.

Under the direction of the Climate Commission, the Department is ready to stand up a program to assist Hawaii in adapting to sea level rise impacts. We propose a program that aims to support agencies, departments, communities and the business sector to do much needed planning, prioritization and implementation for climate change adaptation and resiliency. This effort is in direct response to the Hawaii Climate Commission's statement to "...bring resources to assist in planning and implementation for sea level rise and other climate related impacts."

Thank you for the opportunity to comment on this measure.



UNIVERSITY OF HAWAI'I SYSTEM

Legislative Testimony

Testimony Presented Before the Senate Committee on Agriculture & Environment and Senate Committee on Water & Land Friday, March 15, 2019 at 3:00 p.m. By Charles (Chip) Fletcher Professor and Associate Dean School of Ocean and Earth Science and Technology Vice Chair, Honolulu Climate Change Commission And Makena Coffman Professor, Urban and Regional Planning Director, Institute for Sustainability and Resilience Chair, Honolulu Climate Change Commission And Michael Bruno, PhD Vice Chancellor for Research and Interim Vice Chancellor for Academic Affairs University of Hawai'i at Mānoa

HB 461 HD1 - RELATING TO SEA LEVEL RISE

Chairs Gabbard and Kahele, Vice Chairs Ruderman and Keith-Agaran, and Members of the Committees:

My name is Charles (Chip) Fletcher and I thank you for the opportunity to submit testimony in support of HB 461 HD1 on behalf of the University of Hawai'i at Mānoa (UHM). This measure is to support and direct the Hawai'i climate change mitigation and adaptation commission to make further progress towards addressing the impacts of sea level rise, to identify critical public infrastructure in impacted areas, and to provide policy direction to the legislature about how to move forward with concrete strategies for mitigation and adaptation to sea level rise.

Since its formation in 2017, the Hawai'i Climate Change Mitigation and Adaptation Commission (HCCAC) has played a transformational role in building community recognition of the impacts of global warming in Hawai'i. The release of their seminal Hawai'i Sea Level Rise Vulnerability and Adaption report catalyzed mayors on Maui, O'ahu, Kaua'i, and Hawai'i Island to recognize the urgency of developing plans to improve community resiliency in the face of rising ocean waters.

Dr. Makena Coffman and I serve as the Chair and Vice-Chair, respectively, on the City and County of Honolulu Climate Change Commission (HCCC). We want to

acknowledge that staff of HCCAC have made a special point of communicating and integrating their plans and activities with members of HCCC. This effort extends to other members of the UHM campus as well. Together the two commissions have been able to participate jointly in special planning groups, public events, and to otherwise increase their achievements by the leveraging created by state staff. As this bill makes clear, there is a tremendous amount of work still to be done and it will take all of us working collaboratively to maintain and enhance public health and safety in the face of a changing climate.



HB 461, HD 1, RELATING TO SEA LEVEL RISE

MARCH 15, 2019 · HOUSE SENATE COMMITTEES ON WATER AND LAND AND AGRICULTURE AND ENVIRONMENT · CHAIRS SEN. KAIALI'I KAHELE AND SEN. MIKE GABBARD

POSITION: Support.

RATIONALE: IMUAlliance supports HB 461, HD 1, relating to sea level rise, which requires the Hawaii Climate Change Mitigation and Adaptation Commission to conduct certain activities to address the impacts of sea level rise and report to the Legislature before the 2021 Regular Session.

According to a report produced by the Hawai'i Climate Change Mitigation and Adaptation Commission, global sea levels could rise more than three feet by 2100, with more recent projections showing this occurring as early as 2060. In turn, over the next 30 to 70 years, approximately 6,500 structures and 19,800 people statewide will be exposed to chronic flooding. Additionally, an estimated \$19 billion in economic loss would result from chronic flooding of land and structures located in exposure areas. Finally, approximately 38 miles of coastal roads and 550 cultural sites would be chronically flooded, on top of the 13 miles of beaches that have already been lost on Kaua'i, O'ahu, and Maui to erosion fronting shoreline armoring, like seawalls.

As we work to reduce carbon emissions and stave off the worst consequences of climate change, we must begin preparing for the adverse impact of sea level rise on our shores. We are now quantifying the speed at which we must act. We cannot continue to develop the 25,800-acre statewide sea level rise exposure area–one-third of which is designated for urban use–without risking massive structural damage and, potentially, great loss of life.

Kris Coffield, Executive Director • Anna Davide, Policy Specialist • Shana Merrifield, Board of Directors • Jeanné Kapela, Board of Directors • Tara Denney, Board of Directors • Jenifer Allen, Board of Directors





TESTIMONY TO THE HOUSE COMMITTEES ON WATER AND LAND, AND AGRICULTURE AND ENVIRONMENT State Capitol, Conference Room 224 415 South Beretania Street 3:00 PM

March 15, 2019

RE: HOUSE BILL NO. 461 HD 1, RELATING TO SEA LEVEL RISE

Chairs Kahele and Gabbard, Vice Chairs Keith-Agaran and Ruderman, and members of the committees:

My name is Gladys Quinto Marrone, CEO of the Building Industry Association of Hawaii (BIA-Hawaii). Chartered in 1955, the Building Industry Association of Hawaii is a professional trade organization affiliated with the National Association of Home Builders, representing the building industry and its associates. BIA-Hawaii takes a leadership role in unifying and promoting the interests of the industry to enhance the quality of life for the people of Hawaii. Our members build the communties we all call home.

BIA-Hawaii has the following **comments** on H.B. 461 HD 1, which proposes to establish the Sea Level Rise Relocation Program and the position of Sea Level Rise Relocation Coordinator in the Office of Planning to coordinate mitigation measures, relocation, and site planning for public infrastructure and facilities affected by sea level rise.

As an island state, we all should be concerned about how climate change and sea level rise are impacting our coastal areas. The proposed bills are intended to create one entity in the State to oversee issues and impacts of sea level rise and coastal erosion. While we strongly support the need to centralize this efforts, we also believe that this effort needs to be focused on science, facts and evidence. It also needs to address the reality of how to deal with private property rights. If government prevents a property owner from protecting their property because of the impact it would generate on the adjacent public lands, who should compensate the land owner for their loss?

The legislature should consider a more comprehensive approach to addressing the problem today by doing the following:

 Formally adopt the maps created by the Hawai'i Climate Change Mitigation & Adaptation Commission that identifies areas, now and in the future, that will be impacted by sea level rise. This would allow affected landowners to be informed of the possible designation and raise any concerns they may have through the Administrative Rule-making process used to adopt the maps.



2. Identify those areas around the state that will be subject to high rates of coastal erosion due to sea level rise. Provide funding for condemnation of the private properties impacted and relocation of public infrastructure.

We appreciate the opportunity provide comments on H.B. 461.

tel. 808-629-7501 fax. 808-629-7701 94-487 Akoki St. , Ste 213 Waipahu, HI 96797 www.biahawaii.org info@biahawaii.org



JOINT SENATE COMMITTEES ON WTL AND AEN

March 15, 2019 3:00 PM Room 225

In SUPPORT HB 461 HD1: Relating to Sea Level Rise

Aloha Chair Kahele, Chair Gabbard, and members of the WTL and AEN committees,

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i supports HB 461 HD1, which requires and appropriates funds to the Hawaii Climate Change Mitigation and Adaptation Commission to conduct certain activities to address the impacts of sea level rise and report to the Legislature before the 2021 Regular Session.

Climate Change impacts, especially sea level rise, create a new type of coastal hazard affecting coastal areas now and increasingly in the future. The "Hawai'i Sea Level Rise Vulnerability and Adaptation Report" prepared by the Hawai'i Climate Change Mitigation and Adaptation Commission, provides the first state-wide assessment of Hawaii's vulnerability to sea level rise by showing sea level rise exposure areas (SLR-XA) that are exposed to potential chronic flooding and land loss based on modeling passive flooding, annual high wave flooding, and coastal erosion. A summary of potential state-wide impacts from 3.2 feet of sea level rise (25,800 acres) are estimated to be \$19 billion in loss of land and structures, 38 miles of major roads flooded, 6,500 structures flooded, and 19,800 people displaced.¹

While much of the focus of the Report is on the Sea Level Rise Vulnerability projections of 3.2 feet expected to occur before the year 2100, *impacts of sea level rise are here already and will accelerate in coming years*. Policy and permitting decisions with long-term effects related to sea level rise are happening now, including approvals of structures with long life spans, siting of utilities and other capital improvements, and other actions with long-range consequences. Implementation of the Report findings and recommendations are timely and necessary so that we adequately plan for climate change hazards and mitigation in an era of sea level rise, increased frequency and intensity of storm events, and other climate change impacts.

This bill requires the Hawai'i Climate Change Mitigation and Adaptation Commission to utilize the findings of the Report and identify and incorporate sea level rise predictions within public infrastructure planning and investment processes, work with state and county agencies to develop sea level rise adaptation plans, and make further climate change mitigation and adaptation recommendations to the Legislature. This bill also appropriates funds to help the

¹ https://climateadaptation.hawaii.gov/wp-content/uploads/2017/12/SLR-Report_Dec2017.pdf

Commission execute this work. Sierra Club strongly supports continuing funding for the Hawaii Hawaii Climate Change Mitigation and Adaptation Commission and the Coordinator position.

We commend the authors of HB 461 for their initiative in providing legislation to implement the Report's recommendations and are appreciative that the legislature has introduced several bills relating to sea level rise this session.

Mahalo for the opportunity to testify on this important issue.

Mahalo,

godi fralinosti

Jodi Malinoski, Policy Advocate





49 South Hotel Street, Room 314 | Honolulu, HI 96813 www.lwv-hawaii.com | 808.531.7448 | voters@lwv-hawaii.com

COMMITTEE ON WATER AND LANDS

Senator Kaiali`i Kahele, Chair Senator Gilbert S.C. Keith-Agaran, Vice Chair

COMMITTEE ON AGRICULTURE AND ENVIRONMENT Senator Mike Gabbard, Chair Senator Russell Ruderman, Vice Chair

HB461 HD1 - RELATING TO SEA-LEVEL RISE

Friday, March 15, 2019, 3:00 p.m., Conference Room 224

TESTIMONY

Nancy Davlantes, Legislative Committee Member, League of Women Voters of Hawaii

Chairs Kahele and Gabbard, Vice-Chairs Keith-Agaran and Ruderman, committee members:

The League of Women Voters of Hawaii echoes its testimony previously submitted in support of various bills addressing the challenge of sea-level rise.

Hawaii's Climate Change Mitigation and Adaptation Commission, created by Act 32 in 2017, certainly has a lot on its plate, including this bill which would require the Commission to conduct certain activities to address the impacts of sea level rise and report to the Legislature before the 2021 Regular Session.

Fortunately, this bill appropriates money, and it's going to take a lot of it to address all the climate-change related challenges Hawaii faces.

This bill is an initial step in that direction, and there truly is no time to waste.

Thank you for the opportunity to submit testimony.



Testimony to the Senate Committees on Agriculture and Environment and Water and Land Friday, March 15, 2019 at 3:00 P.M. Conference Room 224, State Capitol

RE: HB 461 HD1 RELATING TO SEA LEVEL RISE

Chairs Gabbard and Kahele, Vice Chairs Ruderman and Keith-Agaran, and Members of the Committees:

The Chamber of Commerce Hawaii ("The Chamber") has the following comments to HB 461 HD 1, which proposes to establish the Sea Level Rise Relocation Program and the position of Sea Level Rise Relocation Coordinator in the Office of Planning to coordinate mitigation measures, relocation, and site planning for public infrastructure and facilities affected by sea level rise.

The Chamber is Hawaii's leading statewide business advocacy organization, representing about 2,000+ businesses. Approximately 80% of our members are small businesses with less than 20 employees. As the "Voice of Business" in Hawaii, the organization works on behalf of members and the entire business community to improve the state's economic climate and to foster positive action on issues of common concern.

As an Island State, we all should be concerned about how climate change and sea level rise are impacting our coastal areas. The proposed bill is intended to create one entity in the State to oversee issues and impacts of sea level rise and coastal erosion.

While we support the need to centralize these efforts, we also believe that this effort needs to be focused on science, facts and evidence. It also needs to address the reality of how to deal with private property rights. If government prevents a property owner from protecting their property because of the impact it would generate on the adjacent public lands, who should compensate the land owner for their loss?

The legislature should consider a more comprehensive approach to addressing the problem today by doing the following:

 Formally adopt the maps created by the Hawaii Climate Change Mitigation & Adaptation Commission that identifies areas, now and in the future, that will be impacted by sea level rise. This would allow affected landowners to be informed of the possible designation and raise any concerns they may have through the Administrative Rule making process used to adopt the maps.



2. Identify those areas around the state that will be subject to high rates of coastal erosion due to sea level rise. Provide funding for condemnation of the private properties impacted and relocation of public infrastructure.

We appreciate the opportunity provide testimony.

HB-461-HD-1 Submitted on: 3/12/2019 1:21:53 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|--------------|--------------|-----------------------|-----------------------|
| Erica Scott | Individual | Support | No |

<u>HB-461-HD-1</u>

Submitted on: 3/12/2019 1:40:35 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|------------------------------|--------------|-----------------------|-----------------------|
| Katharine T. Cannon- Eger | Individual | Support | No |

Comments:

This issue is of importance to Hilo, particularly the Waiakea peninsula where several public parks are heavily used by our resident population as well as existing lodging for residents and visitors.

HB-461-HD-1 Submitted on: 3/13/2019 7:59:33 AM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|------------------------------|--------------|-----------------------|-----------------------|
| Benton Kealii Pang, Ph.D. | Individual | Support | No |

Submitted on: 3/13/2019 3:50:42 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------|--------------|-----------------------|-----------------------|
| Greg Puppione | Individual | Support | No |

Comments:

I support this bill. Climate Change impacts, especially sea level rise, create a new type of coastal hazard affecting coastal areas now and increasingly in the future. Policy and permitting decisions with long-term effects related to sea level rise are happening now, including approvals of structures with long life spans, siting of utilities and other capital improvements, and other actions with long-range consequences. We need to be incorporating sea level rise projections into our state plans, avoiding construction within hazardous coastal areas to protect our beaches, and supporting innovative solutions to address climate change.

Submitted on: 3/13/2019 3:56:38 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|-----------------|--------------|-----------------------|-----------------------|
| B.A. McClintock | Individual | Support | No |

Comments:

I support this bill. Climate Change impacts, especially sea level rise, create a new type of coastal hazard affecting coastal areas now and increasingly in the future. Policy and permitting decisions with long-term effects related to sea level rise are happening now, including approvals of structures with long life spans, siting of utilities and other capital improvements, and other actions with long-range consequences. We need to be incorporating sea level rise projections into our state plans, avoiding construction within hazardous coastal areas to protect our beaches, and supporting innovative solutions to address climate change.

HB-461-HD-1 Submitted on: 3/13/2019 4:09:51 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------|--------------|-----------------------|-----------------------|
| Cheryl Reeser | Individual | Support | No |

Comments:

I support this bill. Climate Change impacts, especially sea level rise, will impact everyone in Hawaii and will be devasting if we don't address it now.

HB-461-HD-1 Submitted on: 3/13/2019 4:17:43 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|--------------|--------------|-----------------------|-----------------------|
| Tom Eisen | Individual | Support | No |

Submitted on: 3/13/2019 4:18:18 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------|--------------|-----------------------|-----------------------|
| Ashley Wilcox | Individual | Support | No |

Comments:

I support this bill. Climate Change impacts, especially sea level rise, create a new type of coastal hazard affecting coastal areas now and increasingly in the future. Policy and permitting decisions with long-term effects related to sea level rise are happening now, including approvals of structures with long life spans, siting of utilities and other capital improvements, and other actions with long-range consequences. We need to be incorporating sea level rise projections into our state plans, avoiding construction within hazardous coastal areas to protect our beaches, and supporting innovative solutions to address climate change.

Submitted on: 3/13/2019 4:37:32 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------|--------------|-----------------------|-----------------------|
| Sandra Fujita | Individual | Support | No |

Comments:

I support this bill. Climate Change impacts, especially sea level rise, create a new type of coastal hazard affecting coastal areas now and increasingly in the future. Policy and permitting decisions with long-term effects related to sea level rise are happening now, including approvals of structures with long life spans, siting of utilities and other capital improvements, and other actions with long-range consequences. We need to be incorporating sea level rise projections into our state plans, avoiding construction within hazardous coastal areas to protect our beaches, and supporting innovative solutions to address climate change

HB-461-HD-1 Submitted on: 3/13/2019 4:55:40 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|-----------------|--------------|-----------------------|-----------------------|
| Denise Boisvert | Individual | Support | No |

Comments:

I support this bill - - especially because we live on an island!

Please support it as well.

HB-461-HD-1 Submitted on: 3/13/2019 5:03:14 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|--------------|--------------|-----------------------|-----------------------|
| Dyson Chee | Individual | Support | No |

HB-461-HD-1 Submitted on: 3/13/2019 5:10:14 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|--------------|--------------|-----------------------|-----------------------|
| Lois Crozer | Individual | Support | No |

HB-461-HD-1 Submitted on: 3/13/2019 5:19:05 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|--------------|--------------|-----------------------|-----------------------|
| Ted Bohlen | Individual | Support | No |

Submitted on: 3/13/2019 6:10:29 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|--------------|--------------|-----------------------|-----------------------|
| L.M. Holmes | Individual | Support | No |

Comments:

I support this bill. Climate Change impacts, especially sea level rise, create a new type of coastal hazard affecting coastal areas now and increasingly in the future. Policy and permitting decisions with long-term effects related to sea level rise are happening now, including approvals of structures with long life spans, siting of utilities and other capital improvements, and other actions with long-range consequences. We need to be incorporating sea level rise projections into our state plans, avoiding construction within hazardous coastal areas to protect our beaches, and supporting innovative solutions to address climate change. Dr. L.M. Holmes, Honolulu 96817

Submitted on: 3/13/2019 6:11:37 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|--------------|--------------|-----------------------|-----------------------|
| Dawn Bruns | Individual | Support | No |

Comments:

Thank you for supporting any measure that maintains public beaches. I oppose sea wall construction because it results in loss of the beach and loss of lateral pedestrian access along the ocean - so I support public purchase of oceanfront lots.

I am also grateful for your support of proactive planning to ease future emergency relocations of Kamehameha Highway at Sunset Beach and Laniakea when they are lost to erosion.

Submitted on: 3/13/2019 7:05:39 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------|--------------|-----------------------|-----------------------|
| Emily Garland | Individual | Support | No |

Comments:

I support this bill. Climate Change impacts, especially sea level rise, create a new type of coastal hazard affecting coastal areas now and increasingly in the future. Policy and permitting decisions with long-term effects related to sea level rise are happening now, including approvals of structures with long life spans, siting of utilities and other capital improvements, and other actions with long-range consequences. We need to be incorporating sea level rise projections into our state plans, avoiding construction within hazardous coastal areas to protect our beaches, and supporting innovative solutions to address climate change.

Submitted on: 3/14/2019 7:30:27 AM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|------------------|--------------|-----------------------|-----------------------|
| Jeffrey Bronfman | Individual | Support | No |

Comments:

I support this bill. Climate change is a reality we are seeing here in the Pacific Islands we need to plan for. We cannot afford to be in denial or foolish.Climate Change impacts, especially sea level rise, create a new type of coastal hazard affecting coastal areas now and increasingly in the future. Policy and permitting decisions with long-term effects related to sea level rise are happening now, including approvals of structures with long life spans, siting of utilities and other capital improvements, and other actions with long-range consequences. We need to be incorporating sea level rise projections into our state plans, avoiding construction within hazardous coastal areas to protect our beaches, and supporting innovative solutions to address climate change.

HB-461-HD-1 Submitted on: 3/14/2019 7:43:43 AM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|---------------|--------------|-----------------------|-----------------------|
| Kim Jorgensen | Individual | Support | No |

Comments:

I strongly support this bill because I don't own a boat!

<u>HB-461-HD-1</u>

Submitted on: 3/14/2019 2:21:20 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|------------------|--------------|-----------------------|-----------------------|
| Philip Fernandez | Individual | Support | No |

Comments:

Sea Level Rise is real and inevitable. The State of Hawaii must plan for relocating critical public infrastructue, including airports, highways, electric power plants, and others that will be impacted. The sooner the state plans and implements a retreat plan, the better off the people of Hawaii will be. PLEASE SUPPORT HB461.



HB-461-HD-1 Submitted on: 3/14/2019 4:30:21 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|--------------|--------------|-----------------------|-----------------------|
| Marilyn Mick | Individual | Support | No |

Comments:

I support this bill. Climate Change impacts, especially sea level rise, create a new type of coastal hazard affecting coastal areas now and increasingly in the future. Policy and permitting decisions with long-term effects related to sea level rise are happening now, including approvals of structures with long life spans, siting of utilities and other capital improvements, and other actions with long-range consequences. We need to be incorporating sea level rise projections into our state plans, avoiding construction within hazardous coastal areas to protect our beaches, and supporting innovative solutions to address climate change.



HB-461-HD-1 Submitted on: 3/14/2019 4:36:24 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|--------------|--------------|-----------------------|-----------------------|
| James McCay | Individual | Support | No |



HB-461-HD-1 Submitted on: 3/14/2019 11:27:47 PM Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|-------------------|--------------|-----------------------|-----------------------|
| Barbara L. George | Individual | Support | No |

Comments:

SUPPORT. Climate Change impacts, especially sea level rise, create a new type of coastal hazard affecting coastal areas now and increasingly in the future. Policy and permitting decisions with long-term effects related to sea level rise are happening now, including approvals of structures with long life spans, siting of utilities and other capital improvements, and other actions with long-range consequences. NOW, we must incorporate sea level rise projections into our state plans, avoid construction within hazardous coastal areas to protect our beaches, and support innovative solutions to address climate change.



HB-461-HD-1 Submitted on: 3/15/2019 2:57:42 PM

Testimony for AEN on 3/15/2019 3:00:00 PM

| Submitted By | Organization | Testifier Position | Present at Hearing |
|-------------------|--------------|-----------------------|-----------------------|
| Nicole Chatterson | Individual | Support | No |