

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 Committee on  
WAYS AND MEANS**

**Thursday, April 5, 2018  
10:30 AM  
State Capitol, Conference Room 211**

**In consideration of  
HOUSE BILL 2182, HOUSE DRAFT 2, SENATE DRAFT 1  
RELATING TO ENVIRONMENTAL PROTECTION**

House Bill 2182, House Draft 2, Senate Draft 1 proposes to convert the carbon farming task force established by Act 33, Session Laws of Hawaii 2017, into a permanent Greenhouse Gas Sequestration Task Force and amends its membership and duties. The State's clean energy and carbon sequestration efforts would be aligned with climate initiative goals, a zero-greenhouse gas emissions target for the State would be established, and an appropriation would be made. **The Department of Land and Natural Resources (Department) supports this initiative and provides the following comments.**

The Department is charged with the stewardship and management of the State's terrestrial and aquatic areas, including its natural resources. Additionally, the Department supports private landowners in the restoration and protection of forests on private properties through private landowner assistance programs and provides tree-related expertise to urban communities through an urban forestry program. Climate change poses an imminent threat to Hawaii's forest areas. At the same time, restoration, protection, and management of forest areas in Hawaii offer substantial potential for cost-efficient climate change mitigation.

A recent study identified reforestation and avoided forest conversion to have the largest climate change mitigation potential among natural climate solutions.<sup>1</sup> Forest ecosystems not only capture significantly more water and prevent it from running off, smothering our coral reefs and causing brown-water beach closures, than any other land use, but can also sequester and store remarkable amounts of carbon dioxide and mitigate climate change. Recent scientific estimates by the United States Geological Survey suggest that an additional four million metric tons of carbon, equal to 89% of Hawaii's annual ground transportation emissions, could be sequestered and stored by reforesting current non-native grass and shrub-lands under the jurisdiction of the Department's Division of Forestry and Wildlife alone.<sup>2</sup>

<sup>1</sup> See [Griscom et al. \(2017\) Natural Climate Solutions](#).

<sup>2</sup> See latest [Hawaii's Greenhouse Gas Inventory report](#).

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

**ROBERT K. MASUDA**  
FIRST DEPUTY

**JEFFREY T. PEARSON, P.E.**  
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

Besides forest ecosystems, long rotation systems such as agroforests, permaculture, home gardens, and boundary plantings have the capacity to sequester large amounts of greenhouse gases in plant biomass and in long-lasting wood products. Agroforestry, an integral part of historic native Hawaiian land use, is considered to be one of the land uses with the most potential to reduce emissions from agriculture. Many agroforestry systems can also increase below-ground carbon storage, both in plant biomass and soil organic matter. In addition to higher rates of carbon storage, agroforestry systems provide many other benefits such as improved soil protection and ameliorated microclimatic conditions due to their wind break effect, improved soil fertility through higher content of soil organic matter and higher biological activity, improved nutrient cycling, reduced soil toxicities, more efficient use of solar energy, and reduced pests and diseases, by integrating trees and shrubs into agricultural practices.

Beside capturing and storing additional carbon dioxide, urban trees promote health and wellbeing, lower average temperature within cities, provide effective flood retention, reduce crime, increase sales in market districts, and increase aesthetic and property values of neighborhoods. However, between 2010 and 2014 Honolulu lost 5% of its urban tree cover in only four years. Including urban trees in the task force's work can assist Honolulu in achieving its goal of reaching 35% urban tree canopy cover by 2035.

A range of innovative mechanisms and policy options to increase carbon sequestration are already used successfully in other parts of the world. For example, the California greenhouse gas cap-and-trade program generates billions of dollars through auctioning emission allowances and carbon offsets that can be invested into climate change mitigation and adaptation initiatives. Costa Rica more than doubled its forest cover since introducing a payment for ecosystem services (PES) based incentive program in the 1980s. A recent study outlines a pathway for the potential implementation of PES mechanisms in Hawai'i.<sup>3</sup> Markets already exist for voluntary carbon offsets generated through projects in areas such as reforestation, agroforestry, urban forestry, agriculture, etc.

Therefore, the Department recommends adding innovative mechanisms and policy options such as cap-and-trade, PES, and participation in existing voluntary and compliance eco-asset markets for the task force to consider.

Exploring, analyzing, and conducting necessary due diligence to identify incentives suitable for Hawai'i and to make valuable policy suggestions is anticipated to require significant resources. Therefore, the Department supports Senate Draft 1 that provides the task force with a budget of \$150,000 for Fiscal Year 2018-2019, provided that its passage does not replace or adversely impact priorities indicated in the Executive Supplemental Budget request.

Thank you for the opportunity to comment on this measure.

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<sup>3</sup> See report "[Hawai'i Carbon + Natural Capital - A Policy + Institutional Analysis for Payment for Ecosystem Services \(PES\) Approaches in Hawai'i](#)".

DAVID Y. IGE  
Governor

DOUGLAS S. CHIN  
Lt. Governor



SCOTT E. ENRIGHT  
Chairperson, Board of Agriculture

PHYLLIS SHIMABUKURO-GEISER  
Deputy to the Chairperson

State of Hawaii  
**DEPARTMENT OF AGRICULTURE**  
1428 South King Street  
Honolulu, Hawaii 96814-2512  
Phone: (808) 973-9600 FAX: (808) 973-9613

**TESTIMONY OF SCOTT E. ENRIGHT  
CHAIRPERSON, BOARD OF AGRICULTURE**

**BEFORE THE SENATE COMMITTEE ON WAYS & MEANS**

**APRIL 5, 2018  
10:30 A.M.  
CONFERENCE ROOM 211**

**HOUSE BILL NO. 2182 HD2 SD1  
RELATING TO ENVIRONMENTAL PROTECTION**

Chairperson Dela Cruz and Members of the Committee:

Thank you for the opportunity to testify on House Bill No. 2306 HD1 SD1. This bill renames the Carbon Farming Task Force established by Act 33, SLH 2017, as the Greenhouse Gas Sequestration Task Force and is attached to the Office of Planning. The task force and the Hawaii Climate Change Mitigation and Adaption Initiative are made permanent. The State's clean energy and carbon sequestration efforts are to be aligned with climate initiative goals. The membership and duties of the task force are amended and a zero-greenhouse gas emissions target for the State is established. The Department of Agriculture offers comments with suggested amendments to ensure benefits to agricultural and aquacultural operations are considered along with greenhouse gas sequestration and improving soil health.

The task force, during its deliberations and development of recommendations, must avoid proposing policies and actions that inadvertently and negatively affect the economic incentive to put agricultural lands into food production by recommending restrictions on agricultural activities or promoting excessive benefits to growing non-edible plants and trees that exceed the income possible from the cultivation and sale of agricultural food products.



We propose the following amendments to address our concerns.

(New language is in bold text and double underscored.)

Page 4, line 12 to page 6 line 7:

"SECTION 2. Chapter 225P, Hawaii Revised Statutes, is amended by adding a new section to be appropriately designated and to read as follows:

**"§225P- Greenhouse gas sequestration task force. (a)**

The greenhouse gas sequestration task force is established within the office of planning for administrative purposes only.

The task force shall have the following objectives:

- (1) Work with public and private stakeholders to establish a baseline for greenhouse gas emissions within Hawaii and short- and long-term benchmarks for increasing greenhouse gas sequestration in the State's agricultural and natural environment;
- (2) Identify appropriate criteria to measure baseline levels and increases in greenhouse gas sequestration, improvements in soil health, **increases in agricultural and aquacultural product yield and quality attributable to greenhouse gas sequestration and improvements in soil health,** and other key indicators of greenhouse gas benefits from beneficial agricultural and aquacultural practices that may be used to create a certification program for promoting agricultural and aquacultural practices that generate

greenhouse gas, **agricultural, and aquacultural**  
**production** benefits;

- (3) Identify land and marine use policies, agricultural policies, agroforestry policies, and mitigation options that would encourage agricultural and aquacultural practices and land use practices that would promote increased greenhouse gas sequestration, build healthy soils, and provide greenhouse gas benefits;
- (4) Identify ways to increase the generation and use of compost in Hawaii to build healthy soils;
- (5) Identify practices and policies that add trees or vegetation to expand the urban tree canopy in urban areas to reduce ambient temperatures, increase climate resiliency, and improve greenhouse gas sequestration in Hawaii; and
- (6) Make recommendations to the legislature and governor regarding measures that would increase climate resiliency, build healthy soils, provide greenhouse gas benefits, or cool urban areas."

Page 9, line 8 to page 11, line 11

"(e) The greenhouse gas sequestration task force shall:

- (1) Submit a preliminary report of its findings and recommendations, including any proposed legislation,

to the legislature and the climate change mitigation and adaptation commission no later than twenty days prior to the convening of the regular session of 2023; provided that the preliminary report shall discuss the objectives and issues listed in subsections (a) and (b), including the following:

(A) Types of agricultural and aquacultural practices, public land and marine use policies, and on-farm managing practices that would provide greenhouse gas benefits **and result in tangible economic benefits to agricultural and aquacultural operations;**

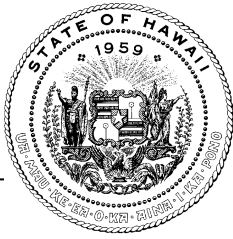
(B) Short-term and long-term benchmarks that would indicate how effectively agricultural and aquacultural activities have been helping the State to reach greenhouse gas neutrality;

(C) Appropriate criteria that may be used in a certification program to measure baseline levels and increases in carbon sequestration, improvements in soil health, and other key indicators of greenhouse gas benefits from beneficial agricultural and aquacultural practices;

(D) Types of incentives, grants, research, and assistance that would promote:

- (i) Agricultural and aquacultural practices to produce greenhouse gas benefits; and
  - (ii) Land and marine use policies and agricultural policies that would encourage agricultural, aquacultural, and land use practices to provide greenhouse gas benefits  
**and result in tangible economic benefits to agricultural and aquacultural operations;**  
and
- (E) Practices and policies that add trees or vegetation to expand the urban tree canopy in urban areas to reduce ambient temperatures and increase climate resiliency and improve greenhouse gas sequestration in Hawaii; and
- (2) Beginning with the regular session of 2024, submit an annual report of its findings and recommendations, including any proposed legislation, to the legislature and the climate change mitigation and adaptation commission no later than twenty days prior to the convening of each regular session."

Thank you for the opportunity to testify on this measure.



# OFFICE OF PLANNING STATE OF HAWAII

DAVID Y. IGE  
GOVERNOR

LEO R. ASUNCION  
DIRECTOR  
OFFICE OF PLANNING

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Statement of  
**LEO R. ASUNCION**  
Director, Office of Planning  
before the  
**SENATE COMMITTEE ON WAYS AND MEANS**  
Thursday, April 5, 2018  
10:30 AM  
State Capitol, Conference Room 211

in consideration of  
**HB 2182, HD2, SD1**  
**RELATING TO ENVIRONMENTAL PROTECTION.**

Chair Dela Cruz, Vice Chair Keith-Agaran, and Members of the Senate Committee on Ways and Means.

The Office of Planning (OP) respectfully offers comments on HB 2182, HD2, SD1, seeking to: (1) repeal Act 33, SLH 2017 (Act 33), establishing the Carbon Farming Task Force; (2) create a permanent new task force named the Greenhouse Gas Sequestration Task Force (Task Force) with similar goals as the Carbon Farming Task Force; (3) align the State's clean energy and carbon sequestration efforts with climate initiatives; (4) require a member of the Task Force to also be a member of the Climate Change Mitigation and Adaptation Commission (Climate Commission); (5) expand the mission of the Task Force to require that it examine opportunities to exploit carbon sequestering trees and vegetation to reduce urban temperatures; (6) amend membership and expand the duties of the Task Force; (7) establish a zero-greenhouse gas emissions target for the State by 2045; and (8) make an appropriation of \$150,000 for the Task Force.

Given the broad scope of HB 2182, HD2, SD1, which expands upon the original charge of Act 33, OP agrees that a permanent Task Force is imperative. Moreover, OP agrees that it is prudent to align the various State climate initiatives so that the State may act with one unified voice when addressing climate change impacts and not waste limited resources.

Section 2, at pg. 9, lines 9-13, requires the Task Force to provide a preliminary report of its findings and recommendations, including but not limited to proposed legislation, to the Legislature and the Climate Commission no later than 20 days before the convening of the 2023 Legislative Session. In addition, Section 6, at pg. 13, lines 7-21, requires OP to provide a status update report of its progress and recommendations, including any proposed legislation, concerning the Task Force to the Legislature, no later than 20 days before the convening of the 2021 Legislative Session.



In order to meet the intent for providing an earlier report to the Legislature, and reduce reporting requirements so that Task Force maintains focus on the proposed measure's main objectives, OP recommends the following amendment on Page 9, Lines 9-13 to read as follows:

(1) Submit a preliminary report of its findings and recommendations, including any proposed legislation, to the legislature and the climate change mitigation and adaptation commission no later than twenty days prior to the convening of the regular session of [2023] 2021;

And the deletion of Page 13, Lines 17-21:

~~SECTION 6. The office of planning shall submit a status update report of its progress and recommendations, including any proposed legislation, regarding the greenhouse gas sequestration task force to the legislature no later than twenty days prior to the convening of the regular session of 2021.~~

Further, if HB 2182, HD2, SD1 is passed with the **appropriation amount of \$150,000** and **an additional temporary project analyst position**, it will permit the Task Force to continue its mandated activities, including examination and creation of a carbon offset program/carbon sequestration certification. OP will request follow-on funding in the FY20-21 budget.

Thank you for the opportunity to comment on this measure.



P.O. Box 253, Kunia, Hawai'i 96759  
Phone: (808) 848-2074; Fax: (808) 848-1921  
e-mail [info@hfbf.org](mailto:info@hfbf.org); [www.hfbf.org](http://www.hfbf.org)

April 5, 2018

HEARING BEFORE THE  
SENATE COMMITTEE ON WAYS AND MEANS

**TESTIMONY ON HB 2182, SD1**  
RELATING TO ENVIRONMENTAL PROTECTION

Room 211  
10:30 AM

Aloha Chair Dela Cruz, Vice Chair Keith-Agaran, and Members of the Committee:

I am Randy Cabral, President of the Hawaii Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,900 farm family members statewide, and serves as Hawaii's voice of agriculture to protect, advocate and advance the social, economic and educational interests of our diverse agricultural community.

**HFB provides the following comments relating to HB 2182, SD1**, which renames the carbon taskforce to a greenhouse gas sequestration task force, making it permanent and expanding its' mission.

HFB supports the intent of this measure, seeking ways to increase carbon sequestration. Agriculture provides a huge opportunity as a carbon sink and its' role is not just with trees. We believe there are several areas that need to be emphasized moving forward.

- 1. Addition of an economist familiar with agriculture.** The intent to develop practices that increase GHG sequestration is laudible but it should be in perspective. The measure suggests developing policies – does this mean the practices will be required of all farmers and ranchers? History has demonstrated that there are many ways to achieve an end. The uniqueness of Hawaii's various environments need to be considered and at the end of the day, the viability of the farm and ranch protected. These practices can be a part of good stewardship but only with cost effective practices. Demonstration plots are suggested without reference to economic analysis. **The practices should not solely be based on research data demonstrating GHG sequestration but balanced with economic realities.**
- 2. We agree with the development of incentives. However, the incentives need to be based on real data and metrics for sequestration.** How long is the GHG

sequestered for a practice? How does the practice fit to benefit Hawaii? Will practices that primarily sequester GHG without agricultural production be favored over practices that do both? These are policy decisions that need to be considered by the task force.

HFB supports the intent of this measure and respectfully requests that an economic component be included in this measure. Thank you for this opportunity to comment on this important topic.

Thank you for this opportunity to provide our input on this measure.



## ORGANIZING *for* ACTION

To: The Senate Committee on Ways and Means  
From: Brodie Lockard, OFA Hawaii, 262-1285  
Date: Thursday, April 5, 2018

### **In support of HB2182 HD2 SD1**

Dear Chair Dela Cruz, Vice Chair Keith-Agaran and Committee members,

I am the Hawaii Climate Lead for Organizing for Action, a progressive group that played a lead in electing President Barack Obama twice. OFA Hawaii supports HB2182 HD2 SD1.

It becomes more obvious every week that climate change is impacting Hawaii in myriad negative ways, and that we must do everything in our power to fight it. A permanent greenhouse gas sequestration task force is an important piece of that fight.

A zero-greenhouse gas emissions target for the State is another crucial piece of that same fight.

We note that methane is a global warming gas 84 times as potent as CO<sub>2</sub> over a 20-year period [1], and has in recent years become recognized as at least as big a threat as carbon. About 25% of the manmade global warming we're experiencing today is caused by methane emissions [1], and large methane deposits in places like arctic permafrost may soon be freed by climate change that is already taking place. OFA hopes that in its efforts, the task force will give methane the serious consideration and attention it deserves.

Please support HB2182 HD2 SD1.

Thank you for the opportunity to testify.

Brodie Lockard  
Hawaii Climate Lead, Organizing for Action

[1] <https://www.edf.org/methane-other-important-greenhouse-gas>



To: The Senate Committee on Ways and Means  
From: Sherry Pollack, 350Hawaii.org  
Date: Thursday, April 5, 2018

**In support of HB2182 HD2 SD1**

Dear Chair Dela Cruz, Vice Chair Keith-Agaran and Committee members,

I am the Vice President of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org supports HB2182 HD2 SD1.

It becomes more obvious every week that climate change is impacting Hawaii in myriad negative ways, and that we must do everything in our power to fight it. A permanent greenhouse gas sequestration task force is an important piece of that fight.

A zero-greenhouse gas emissions target for the State is another crucial piece of that same fight.

We note that methane is a global warming gas 84 times as potent as CO<sub>2</sub> over a 20-year period [1], and has in recent years become recognized as at least as big a threat as carbon. About 25% of the manmade global warming we're experiencing today is caused by methane emissions [1], and large methane deposits in places like arctic permafrost may soon be freed by climate change that is already taking place. OFA hopes that in its efforts, the task force will give methane the serious consideration and attention it deserves.

Please support HB2182 HD2 SD1.

Thank you for the opportunity to testify.

Sherry Pollack  
Vice President, 350Hawaii.org

[1] <https://www.edf.org/methane-other-important-greenhouse-gas>



## SENATE COMMITTEE ON WAYS AND MEANS

April 5, 2018, 10:30 A.M.

Room 211

(Testimony is 2 pages long)

### TESTIMONY IN SUPPORT OF HB 2182 HD2 SD1, SUGGESTED AMENDMENT

Aloha Chair Dela Cruz, Vice Chair Keith-Agaran, and Committee members:

Blue Planet Foundation **supports** HB 2182 HD2 SD1, making permanent the Carbon Farming Task Force established by Act 33, Session Laws of Hawaii 2017, and setting a long term goal of carbon neutrality for Hawaii.

Blue Planet Foundation is particularly supportive of the establishing the State objective, in the planning act, of “sequestering more atmospheric carbon and greenhouse gases than the State produces as quickly as practicable, but no later than 2045.” We believe such an objective has been missing from Hawaii’s various clean energy policies, and it is an important complement to the state’s commitment to the Paris Climate Agreement.

While Hawaii has set a 100% renewable portfolio standard for electricity by 2045, the current definitions of renewable energy may allow continued greenhouse gas emissions. A similar challenge exists with the county-level goals for 100% renewable ground transportation (which still lack clear policies to achieve the goals). This measure sets the overall target of carbon neutrality for Hawaii, considering both greenhouse gas reduction actions and carbon sequestration efforts. We believe this objective is critical to help guide the work of the Climate Change Mitigation and Adaptation Commission and the state as a whole.

Blue Planet respectfully requests that HB 2182 be amended to additionally **direct the commission to develop a “carbon budget” for Hawaii to guide mitigation goals, strategies, and recommendations.** Act 32 (Session Laws of Hawaii 2017) sought to “expand strategies and mechanisms to reduce the greenhouse gas emissions statewide” in a manner that is “closely aligned with the climate change principles and goals adopted in the Paris Agreement.” Currently, there is some uncertainty about what, exactly, that means in terms of greenhouse gas or carbon emissions for the state. The development of a carbon budget would provide some clarity to the commission and decision makers.

A carbon budget can be defined as a tolerable quantity of greenhouse gas emissions that can be emitted in total over a specified time. The budget needs to be based on what is scientifically

required to keep global warming and thus climate change “tolerable.” The United Nations Intergovernmental Panel on Climate Change and its contributors have quantified the remaining allowable carbon budgets globally to limit global warming at a certain temperature levels at various probabilities. It’s possible to calculate a budget like this because carbon dioxide, which is the biggest contributor to global warming, has a fairly predictable relationship with temperature. The warming the Earth experiences is almost directly proportional to the total amount of carbon dioxide that accumulates in the atmosphere.

Proposed language to accomplish this in HB 2182 is as follows:

*“The commission shall develop a science-based carbon budget for Hawaii based on greenhouse gas analysis in the United Nations Intergovernmental Panel on Climate Change Fifth Assessment Report. The budget shall be based on equitable sharing of the Earth’s remaining allowable carbon emissions to have at least a 66 percent chance of limiting global warming to below 2 degrees Celsius above pre-industrial temperatures, in accordance with Act 32, Session Laws of Hawaii 2017. The commission may also develop individual carbon budgets for Hawaii’s major energy use sectors, including electricity generation, ground transportation, marine, aviation, and industrial energy.”*

This language could be inserted as a new subsection in HRS §225P-3 (*Hawaii climate change mitigation and adaptation commission; general functions, duties, and powers*).

Blue Planet Foundation believes that such direction will help the commission frame its objectives, planning, and timelines to achieve Hawaii’s commitment to the goals of the Paris Climate Agreement.

Thank you for the opportunity to testify.

**HB-2182-SD-1**

Submitted on: 4/4/2018 8:35:39 AM

Testimony for WAM on 4/5/2018 10:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	Testifying for Oahu County Committee on Legislative Priorities of the Democratic Party of Hawai'i	Support	No

Comments:

To the Honorable Donovan M. Dela Cruz, Chair; the Honorable Gilbert S. C. Keith-Agaran, Vice-Chair, and Members of the Committee on Ways and Means:

Good morning. My name is Melodie Aduja. I serve as Chair of the Oahu County Committee ("OCC") on Legislative Priorities of the Democratic Party of Hawaii. Thank you for the opportunity to provide written testimony on **HB2182 HD2 SD1** relating to Environmental Protection; Carbon Farming Task Force; Greenhouse Gas Sequestration Task Force; Sequestration; Emissions; Office of Planning; Task Force; and an appropriation.

The OCC Legislative Priorities Committee is in favor of **HB2182 HD2 SD1** and supports its passage.

**HB2182 HD2 SD1**, is in alignment with the Platform of the Democratic Party of Hawai'i ("DPH"), as it renames the Carbon Farming Task Force established by Act 33, Session Laws of Hawaii 2017, as the Greenhouse Gas Sequestration Task Force and makes the task force and Hawaii Climate Change Mitigation and Adaptation Initiative permanent; aligns the State's clean energy and carbon sequestration efforts with climate initiative goals; amends membership and duties of the Task Force; establishes a zero-greenhouse gas emissions target for the State; and makes an appropriation.

Specifically, the DPH Platform states, "[t]he Democratic Party of Hawai'i believes that the preservation and restoration of our natural environment is essential. We support a sustainable society that utilizes the earth in such a way that future generations will benefit from the practices of our generation. We support the restoration, preservation, and protection of our native ecosystems on each island. We believe in integrated approaches, practices, and support public policies that create and maintain a sustainable way of life in Hawai'i.

We believe in supporting best management practices in sustaining our environment and in increased citizen involvement. We support programs that encourage



sustainable clean, efficient, creative and environmentally friendly modes of transportation, recycling and waste reduction.

The conservation, preservation and restoration of Hawaii's natural resources are connected to the health and welfare of our people; therefore, we support the conservation and protection of our natural environment, which includes reducing our carbon footprint for the benefit of current and future generations.

We support the protection of our 'aina against destruction by corporate, government, or military usage and expect full restoration and reparation of environmental damage. To handle current and future demands for water, we must assess the current condition of our aquifers and take appropriate actions to secure our fresh water resources.

We support democratic participation of citizens and residents to protect (i) valuable coastal ecosystems and reefs from misuse and (ii) beaches for public use and recreation. The Hawai'i Coastal Zone Management (CZM) law, HRS Chapter 205A, currently provides for public participation in management of coastal resources.

We believe in the vigorous enforcement of our environmental laws and increased public-private stewardships and citizen involvement in protecting our resources.

We know that climate change is a real threat to our islands and the world. We strongly urge our candidates and elected officials to take immediate action to mitigate and adapt to the consequences of climate change. This includes funding adaptation measures including coastal retreat, effective participation of indigenous peoples in climate change governance, and recognition that indigenous, local, and traditional ecological knowledge is key in climate change adaptation solutions.. (Platform of DPH, P. 8, Lines 407-438 (2016)).

Given that **HB2182 HD2 SD1** renames the Carbon Farming Task Force established by Act 33, Session Laws of Hawaii 2017, as the Greenhouse Gas Sequestration Task Force and makes the task force and Hawaii Climate Change Mitigation and Adaptation Initiative permanent; aligns the State's clean energy and carbon sequestration efforts with climate initiative goals; amends membership and duties of the Task Force; establishes a zero-greenhouse gas emissions target for the State; and makes an appropriation, it is the position of the OCC on Legislative Priorities to support this measure.

Thank you very much for your kind consideration.

Sincerely yours,

/s/ Melodie Aduja

Melodie Aduja, Chair, OCC on Legislative Priorities

Email: [legislativepriorities@gmail.com](mailto:legislativepriorities@gmail.com), Text/Tel: (808) 258-8889

**HB-2182-SD-1**

Submitted on: 4/2/2018 7:00:43 PM

Testimony for WAM on 4/5/2018 10:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Benton Kealii Pang, Ph.D.	Individual	Support	No

Comments:

I support HB2182. Additional efforts to sequester carbon, such as the implementation of carbon forestry- with projects already occurring in Hawai'i, are hugely beneficial in efforts to sequester carbon not only in soil, but also in tree biomass. The benefits of these efforts are many, including supporting native ecosystems and enhancing watershed restoration and protection. Please pass this measure.

**HB-2182-SD-1**

Submitted on: 4/3/2018 9:06:37 AM

Testimony for WAM on 4/5/2018 10:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
june chee	Individual	Support	No

Comments:

Katherine T. Kupukaa  
Mililani, Hawaii

COMMITTEE ON WAYS AND MEANS  
Senator Donovan M. Dela Cruz, Chair  
Senator Gilbert S.C. Keith-Agaran, Vice Chair

DATE: Thursday, April 5, 2018  
TIME: 10:30 am.  
PLACE: Conference Room 211  
State Capitol  
415 South Beretania Street

RE: OPPOSE HB 2182, HD2, SD1

I oppose this bill because it states that Hawaii could suffer nineteen billion dollars in damage due to projected sea level rise. Also Hawaii is committed to mitigating climate change, including its commitment to have a one hundred per cent renewable energy portfolio by 2045. This bill is flawed and one-sided, questionable with its views and facts. I differ from this belief and this should not be one of the legislature's priority. We have more urgent issues to deal with such as unfunded public liability, high cost of living, more affordable housing, homelessness and the economy to name a few.

Just to relay information you may or may not know about. Dr. John Bates NOAA scientist has irrefutable evidence that paper presented at UN climate conference in Paris in 2015 was based on misleading unverified data. It was never subjected to NOAA's rigorous internal evaluation process which Dr. Bates devised. A posting at Real Climate reveals Arctic sea ice today is about the same thickness as it was 75 years ago. That is despite prediction to the contrary by Al Gore and his crew of hypocrites, liars, and scientific fraudsters. To quote Gore "say goodbye to polar bears and a whole lot of ice. New research suggests the Arctic Ocean could be ice-free by 2015 with devastating consequences for the world. Can it be stopped?"

May I remind you that we have a new president now so let's look forward and forget what former President Obama's appointment of former Abercrombie to serve on Climate Preparedness and Resilience. This belief of global warming is debatable and is not necessarily shared by all scientists.

There should be no funds appropriated out of the general revenues of the State of Hawaii. Please do not pass this bill. It is a waste of tax payer's money.

Thank you for allowing me to voice my concern.

**HB-2182-SD-1**

Submitted on: 4/3/2018 9:50:43 AM

Testimony for WAM on 4/5/2018 10:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Leslie Cole-Brooks	Individual	Support	No

Comments:

**HB-2182-SD-1**

Submitted on: 4/4/2018 10:01:37 AM

Testimony for WAM on 4/5/2018 10:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Mary Smart	Individual	Oppose	No

Comments: