JOSH GREEN, M.D.
GOVERNOR | KE KIAʻĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIAʻĀINA

STATE OF HAWAIʻI | KA MOKUʻĀINA ʻO HAWAIʻI
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA ʻOIHANA KUMUWAIWAI ʻĀINA

P.O. BOX 621
HONOLULU, HAWAII 96809

DAWN N.S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

LAURA H.E. KAAKUA
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

Testimony of
DAWN N. S. CHANG
Chairperson

Before the House Committee on
FINANCE

Monday, February 27, 2023
11:30 AM
State Capitol, Conference Room 308

In consideration of
HOUSE BILL 837, HOUSE DRAFT 1
RELATING TO THE STATE PLAN

House Bill 837, House Draft 1 proposes to establish green infrastructure objectives, policies, and priority guidelines for state facility systems, infrastructure, and transit projects in the Hawaiʻi State Planning Act to improve the quality of life for residents and visitors, add a definition of "green infrastructure", and requires the Office of Planning and Sustainable Development (OPSD), in partnership with the greenhouse gas sequestration task force, to submit a report to the legislature making recommendations for implementing the green infrastructure objectives, policies, and priority guidelines. **The Department of Land and Natural Resources (Department) supports this measure.**

This measure is aligned with the mission of the Department's Kaulunani Urban and Community Forestry Program. The Kaulunani Program builds capacity in our communities to plan for, establish, manage, and protect green infrastructure including street-trees, urban forests, green spaces, bioswales and related natural areas where we live, work, and play. Recent analyses using data from the Hawaiʻi Tree Canopy Viewer (EarthDefine LLC et al 2021) show that 84% of Hawaiʻi residents statewide (and 93% of the population of urban Honolulu) have less than 30% canopy coverage, which is the minimum recommended in order to realize the health and well-being benefits that urban tree canopy provides (Konijnendijk, C.C., 2022). For example, green infrastructure, trees specifically, can reduce surface temperatures as much as 45 degrees (F) and reduce ambient air temperatures by as much as 25 degrees (F) with shade from trees. More green infrastructure, including trees, is needed to sustain our communities statewide. The Department encourages collaboration with OPSD on this topic.

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

STATE OF HAWAIʻI
OFFICE OF PLANNING
& SUSTAINABLE DEVELOPMENT

JOSH GREEN, M.D.
GOVERNOR

SCOTT J. GLENN
DIRECTOR

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Statement of
SCOTT GLENN, Director

before the
HOUSE COMMITTEE ON FINANCE
Monday, February 27, 2023, 11:30 AM
State Capitol, Conference Room 308

in consideration of
HB 837 HD1
RELATING TO THE STATE PLAN

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

The Office of Planning and Sustainable Development (OPSD) **supports** and offers an amendment to HB 837 HD1, which amends the Hawaii State Planning Act, Ch. 226-104, HRS, to establish green infrastructure objectives, policies, and priority guidelines for state facilities, infrastructure, and transit systems to improve the quality of life for residents and visitors.

OPSD strongly supports this measure which adds to the duties assigned to OPSD in administering the Hawaii State Planning Act, in partnership with the Greenhouse Gas Sequestration Task Force (Ch. 225P-4, HRS), a requirement to submit a report to the Legislature making recommendations for implementing the green infrastructure objectives.

OPSD offers the following comment. The Greenhouse Gas Sequestration Task Force is an unfunded mandate with no staff or funds for the required research and reports to the Legislature. All of OPSD employees are assigned to specific programs or hired under federal grants. If the Committee is inclined to pass this measure, OPSD requests that two new sections be added to HB 87: first, establishing one exempt policy analyst position; and second, an appropriation for $150,000 for salary and program funding.

Thank you for the opportunity to testify on this measure.

Josh Green
GOVERNOR OF HAWAII

STATE OF HAWAI'I
HAWAI'I CLIMATE CHANGE MITIGATION & ADAPTATION COMMISSION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

Testimony of
Leah Laramee
Coordinator, Hawai'i Climate Change Mitigation and Adaptation Commission

Before the House Committee on
FINANCE

Monday, February 27, 2023
11:30 AM
State Capitol, Conference Room 308 & Videoconference

In consideration of
HOUSEE BILL 837, HOUSE DRAFT 1
RELATING TO THE STATE PLAN

House Bill 837, House Draft 1 establishes green infrastructure objectives, policies, and priority guidelines for state facility systems, infrastructure, and transit projects in the Hawai'i State Planning Act to improve the quality of life for residents and visitors. Adds definition of "green infrastructure". Requires the office of planning and sustainable development (OPSD), in partnership with the greenhouse gas sequestration task force, to submit a report to the legislature making recommendations for implementing the green infrastructure objectives, policies, and priority guidelines. **The Climate Change Mitigation and Adaptation Commission (Commission) supports this bill.**

The Hawai'i Climate Change Mitigation and Adaptation Commission consists of a multi-jurisdictional effort between 20 different departments, committees, and counties. According to the Intergovernmental Panel on Climate Change's 2022 report, nature-based or "green" infrastructure and ecosystem services provide significant benefits when installed in urban and infrastructure systems. While several nature-based solutions have the ability to innately adapt to rising sea levels, commonly used man-made materials or "gray" strategies to protect coastal infrastructure that rely on hardening shorelines may not be adaptable or must be specifically designed to adapt to rising sea levels, which can be costly. Gray solutions can also have unintended consequences, such as increased erosion or deposition, along other parts of the coastline. Nature-based solutions that rely on existing or enhanced landscapes help improve roadway resiliency by reducing impacts to coastal roads from hazards such as rising sea level, storm surge, and "nuisance" flooding (such as high tide or windblown flooding). Often these "green" strategies are both more effective and less costly than traditional engineering or gray solutions on their own.

Nature-based solutions also provide a natural aesthetic and other benefits. In addition, research suggests that trees may improve driving safety. One study found a 46% decrease in crash rates across urban arterial and highway sites after landscape improvements were installed.[i] Another study found that placing trees and planters in urban arterial roadsides reduced mid-block crashes by 5% to 20%.[ii] Increasing tree canopy can reduce heat island effect, provide shade to encourage walking and biking, and provide storm water mitigation and sequester carbon. Recent instances such as the HDOT lighting project along sections of the Moanalua Fwy, which removed *Nerium Oleander* plantings on sections of the Moanalua Fwy in Halawa indicate that this has not been a priority. Restoration of native coastal plants along shorelines makes those shorelines less susceptible to erosion from high storm waves. The native plant root systems hold the sand and soil in place, and plants such as naupaka, hala, pōhuehue, and ʻānapanapa are able to withstand vigorous wave action without breaking and separating from their roots. Intensive native coastal plant restoration makai of coastal roads may extend road longevity. Creating a strategy to increase the number of nature-based solutions and green infrastructure including trees and native plant restoration would support the State's ability to both mitigate and adapt to climate change.

The Commission supports this measure and respectfully requests that funding and staff be added to assist in the development of this strategy.

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

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[i] Lee, J., and F. Mannering. 1999 (December). *Analysis of Roadside Accident Frequency and Severity and Roadside Safety Management*. Washington State Department of Transportation, Olympia, WA, 137 pp.

[ii] Naderi, J.R. 2003. Landscape Design in the Clear Zone: Effect of Landscape Variables on Pedestrian Health and Driver Safety. *Transportation Research Record* 1851:119-130.

HB-837-HD-1
Submitted on: 2/24/2023 9:00:42 PM
Testimony for FIN on 2/27/2023 11:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Jon Young	The Envision Action Committee of Hawaii (TEACHawaii)	Comments	Remotely Via Zoom

Comments:

I recommend that the **Envision green rating system** be used to measure the sustainability and resilience of projects in a quantifiable and consistent manner.

Envision was designed to help infrastructure stakeholders implement more sustainable, resilient, and equitable projects. Envision helps communities cut greenhouse gas (GHG) emissions, create good-paying "green" jobs, address environmental justice, and meet climate-change targets. Infrastructure owners and design teams, community and environmental groups, constructors, regulators, and policymakers can all benefit from using Envision.

Why Use Envision?
- It incorporate best sustainable practices
- It quantify soft benefits
- It apply a consistent, transparent approach
- It benchmark and track infrastructure performance

Envision - Helping Decision Makers
- Meet sustainability goals
- Guide decisions
- Evaluate environmental benefits
- Address community priorities
- Demonstrate good governance

Agency users and adopters
- US Army Corps of Engineers
- City of Los Angeles Bureau of Engineering
- County of Los Angeles Department of Public Works
- New York City Department of Design and Construction

Since 2016, The Envision Action Committee of Hawaii (**TEACHawaii**) has been promoting the use of Envision in our state. **We have presented to:**
- The National Association of Women in Construction (NAWIC)
- ASCE Hawaii Younger Member Forum
- 2017 Pacific Water Conference
- Institute of Transportation Engineers Hawaii

- Environmental Council, Dept. of Health
- 2018 HWEA Collections System Conference
- County of Maui, Department of Public Works

The Envision green rating system was developed by a joint effort of the:
- American Society of Civil Engineers (ASCE)
- American Council of Engineering Companies (ACEC)
- American Public Works Association (APWA)

To: The Honorable Chair Kyle Yamashita, the Honorable Vice Chair Lisa Kitagawa, and Members of the Committee on Finance

From: Hawai‘i Reef and Ocean Coalition and Climate Protectors Hawai‘i (by Ted Bohlen)

Re: **Hearing HB837 HD1 RELATING TO THE STATE PLAN**

Hearing: Tuesday February 27, 2023, 11:30 a.m., room 308

Aloha Chair Yamashita, Vice Chair Lisa Kitagawa, and Members of the Committee on Finance:

The Hawai‘i Reef and Ocean Coalition (HIROC) is a group of scientists, educators, filmmakers and environmental advocates who have been working since 2017 to protect Hawaii’s coral reefs and ocean. HIROC is interested in preventing polluted runoff that harms the reefs and oceans.

The Climate Protectors Hawai‘i seek to educate and engage the local community in climate change action, to help Hawai‘i show the world the way back to a safe and stable climate. We support the use of trees and other design measures that reduce heat save energy and reduce the climate impact.

Hawai‘i Reef and Ocean Coalition and Climate Protectors Hawai‘i STRONGLY SUPPORT HB837 HD1.

Sustainable design concepts for public infrastructure use green vegetation and trees to decrease urban temperatures, reduce carbon emissions, improve air quality, and capture water to replenish the water table. The so-called "green infrastructure" is a range of measures that use plant or soil systems, including trees, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to conserve water and reduce flows to sewer systems or to surface waters.

The effects of climate change have made implementing sustainable design concepts more critical, as each passing year has seen increased temperatures and other impacts from climate change.

Studies have found that individuals who live in areas with more trees and green space are less likely to have acute respiratory symptoms and less likely to die of heart disease or respiratory disease. Hawaii is world-renowned for its vegetation. Citizens and tourists alike actively seek out green spaces. Increasing the number of parks and green spaces in Honolulu's urban core will enhance the quality of life of residents and visitors alike.

This bill would establish objectives, policies, and priority guidelines for State facility systems under the Hawaii State Planning Act to achieve the use of green infrastructure, vegetation, and trees in State facility systems, infrastructure, and transit projects. It would require the Office of Planning and Sustainable Development, in partnership with the Greenhouse Gas Sequestration Task Force, to make recommendations for implementing the green infrastructure objectives, policies, and priority guidelines established by this Act.

This bill would make our infrastructure more sustainable and save water and energy. Please pass this bill! Mahalo!

Hawai‘i Reef and Ocean Coalition and Climate Protectors Hawai‘i (by Ted Bohlen)

HB-837-HD-1
Submitted on: 2/25/2023 7:33:13 AM
Testimony for FIN on 2/27/2023 11:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Caroline Azelski	Individual	Support	Written Testimony Only

Comments:

In support of HD1. Thank you.

HOUSE COMMITTEE ON FINANCE
Hearing on Feb. 27, 2023 at 11:30 am

SUPPORTING HB 837 HD1

My name is John Kawamoto, and I support HB 837 HD 1.

The greening of human environments is good for the environment and is good for people. The planting of trees, for example, cools urban areas, reduces carbon emissions, improves air quality, and captures water. The mental health of people and their quality of life are improved by trees and other vegetation. This bill shifts State policy to make urban environments greener.

HB-837-HD-1
Submitted on: 2/26/2023 4:41:11 PM
Testimony for FIN on 2/27/2023 11:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Gerard Silva	Individual	Oppose	Written Testimony Only

Comments:

All Green Projects Has to END they are all SCAMS. The Government should Get out Now befor it is to Late For them.!!!!