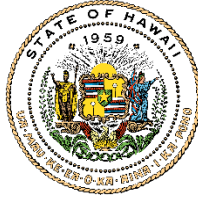


JOSH GREEN, M.D.  
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE  
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



STATE OF HAWAII | KA MOKU'ĀINA 'O HAWAII'  
OFFICE OF THE CHAIRPERSON  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P.O. BOX 621  
HONOLULU, HAWAII 96809

Testimony of  
DAWN N. S. CHANG  
Chairperson

Before the House Committee on  
WATER & LAND

Tuesday, March 28, 2023  
9:30 AM

State Capitol, VIA VIDEOCONFERENCE, Conference Room 430

In consideration of  
HOUSE CONCURRENT RESOLUTION 80/HOUSE RESOLUTION 85  
DESIGNATING HAWAII'S CORAL REEFS AS CRITICAL NATURAL  
INFRASTRUCTURE AND STRONGLY SUPPORTING NATURE-BASED SOLUTIONS  
SUCH AS CORAL REEF RESTORATION FOR RISK REDUCTION

House Concurrent Resolution 80/House Resolution 85 designate Hawai'i coral reefs as critical natural infrastructure. **The Department of Land and Natural Resources (Department) strongly supports these measures.**

Pursuant to Hawaii Revised Statutes Section 26-15(b), the Department is responsible for managing and administering the aquatic and terrestrial wildlife resources of the State, including coral reefs. In Hawai'i, coral reefs serve as the first line of defense to shoreline erosion and tidal flooding related events. This is because coral reefs act as natural breakwaters, dissipating up to 97% of wave energy impacting shorelines and trapping sediment. This wave energy attenuation service is valued around \$836 million annually when considering people, property, and jobs.

Hawai'i coral reefs are threatened by the effects of climate change including sea level rise, coral bleaching, and ocean acidification. Other stressors include land-based sources of pollution, impacts to groundwater discharge, unsustainable fishing practices, anchor damage, and invasive species. Hawai'i has experienced three major coral bleaching events in the past eight years resulting in 40% live coral cover loss in some areas. As these hazards continue to threaten this ecosystem, the State must be proactive in protecting and restoring our coral reefs.

DAWN N. S. CHANG  
CHAIRPERSON  
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The effort to protect and restore coral reefs is already underway in the Department through the operation of a coral restoration nursery, regular monitoring of reef health, invasive species prevention and control, and management of nearshore fisheries. However, to further support these efforts, the Department would like to utilize the Federal Emergency Management Agency (FEMA) Hazard Mitigation Assistance (HMA) program, which can provide a 3:1 match with \$2 billion - \$4 billion available funds annually for competition throughout the United States and associated territories. The formal designation of coral reefs as critical natural infrastructure demonstrates the Legislature's political support for nature-based solutions to combat climate change impacts and increases our likelihood of receiving funding through FEMA's HMA program towards coral reef protection and restoration in Hawai'i.

Additionally, this designation will promote an awareness of conservation and restoration for an important natural resource. Not only do coral reefs provide shoreline protection services, but they also provide a way of life for the people of Hawai'i through sustenance, economy, and recreation. It is estimated that annually coral reef fisheries provide 7 million meals to the people of Hawai'i, of which about 5 million are sourced from non-commercial catches. Also, coral reef associated tourism contributes \$1.23 billion to the State's economy. Furthermore, coral reefs support an intrinsic value and identity to communities rooted in culture, tradition, and recreation.

House Concurrent Resolution 80/House Resolution 85 will support the Department's continued management of coral reefs as critical natural infrastructure and support nature-based solutions to combat climate change in the State.

Mahalo for the opportunity to provide testimony in support of these measures.

**Testimony of The Nature Conservancy  
Supporting HCR 80/HR 85, Designating Hawai'i's coral reefs as critical natural  
infrastructure and strongly supporting nature-based solutions such as coral reef restoration  
for risk reduction.**

**Committee on Water and Land  
March 28, 2023, 9:30 am  
Conference Room 430 and via Videoconference**

Aloha Chair Ichiyama, Vice Chair Poepoe, and Members of the Committee:

The Nature Conservancy (TNC) supports HCR 80/HR 85, Designating Hawai'i's coral reefs as critical natural infrastructure and strongly supporting nature-based solutions such as coral reef restoration for risk reduction.

The coral reefs that line our coasts are environmental, economic, recreational, and cultural treasures that support our island lifestyle and livelihoods. Each year, they also provide flood protection to people, property, and jobs valued at more than \$836 million, support nearshore fisheries worth \$13.4 million, and contribute more than \$1.2 billion through reef-related tourism to the state's economy. Studies have shown that coral reefs' structure can protect against natural hazards by reducing up to 97% of wave energy reaching the shoreline, resulting in less coastal flooding onshore.

The Federal Emergency Management Agency (FEMA) provides billions of dollars in hazard mitigation assistance to reduce or eliminate long-term disaster risks. FEMA is now embracing nature-based solutions (utilizing natural processes to provide increased resilience) as a viable and preferred hazard mitigation solution. Most of these programs require State or local government to apply for funding, and Hawai'i's recognition of coral reefs as critical natural infrastructure will help in future applications for FEMA funding.

Coral reefs are an important nature-based solution to coastal hazards for Hawai'i and we can potentially be a model to showcase healthy coral reefs as critical natural infrastructure that helps our communities become more resilient in the face of natural disasters, climate change, and other stressors. Mahalo for the opportunity to provide comments on HCR 80/HR 85.

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*The Nature Conservancy of Hawai'i and Palmyra is a non-profit organization dedicated to the preservation of the lands and waters upon which all life depends. The Conservancy has helped protect more than 200,000 acres of natural lands in Hawai'i and Palmyra Atoll. We manage 40,000 acres in 13 nature preserves and work in over 50 coastal communities to help protect and restore the nearshore reefs and fisheries of the main Hawaiian Islands. We forge partnerships with government, private parties, and communities to protect forests and coral reefs for their ecological values and for the many benefits they provide to people.*

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**HR-85**

Submitted on: 3/24/2023 11:24:20 AM

Testimony for WAL on 3/28/2023 9:30:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Testify</b>
Cards Pintor	Individual	Support	Written Testimony Only

Comments:

Aloha,

I support this resolution.

Mahalo nui,

Cards Pintor