
HOUSE RESOLUTION

SUPPORTING A FEASIBILITY ASSESSMENT FOR REEF INSURANCE AND
RECOMMENDATIONS FOR NATURE-BASED SOLUTIONS TO PROTECT
HAWAII'S COASTLINES AND COASTAL INFRASTRUCTURE FROM NATURAL
DISASTERS.

1 WHEREAS, the islands of the State include environmental
2 resources such as coral reefs, wetlands, forests, and other
3 natural infrastructure that, if healthy, effectively managed,
4 and functioning, can help mitigate the risks and related loss
5 and damage from the effects of climate change and natural
6 disasters; and

7
8 WHEREAS, the State's coastal areas and infrastructure face
9 climate change-related risks and disaster events including
10 exposure to storms, high wave events, sea level rise, and
11 flooding; and

12
13 WHEREAS, climate scientists and other local and global
14 experts predict an increase in severity and frequency of these
15 events; and

16
17 WHEREAS, a study by a team from the United States
18 Geological Survey, The Nature Conservancy, and University of
19 California at Santa Cruz has developed models showing that
20 healthy coral reefs can absorb up to ninety-seven percent of
21 wave energy, protecting coastal properties from the power of the
22 sea; and

23
24 WHEREAS, that study estimated that Hawaii's coral reefs
25 protect \$836,000,000 worth of coastal infrastructure from
26 flooding annually; and

27
28 WHEREAS, in addition to coastal protection, Hawaii's coral
29 reefs provide residents with income from fishing and tourism,
30 food security, recreational opportunities, and a cultural
31 connection to our island home; and



1 WHEREAS, the health and function of Hawaii's coral reefs are
2 threatened by global stressors related to climate change,
3 including sea level rise, coral bleaching, and acidification;
4 and by local stressors from land-based sources of pollution,
5 unsustainable fishing practices, and invasive species; and
6

7 WHEREAS, live coral cover has declined by as much as forty
8 percent and reef fish abundance has declined by up to ninety
9 percent in some areas; and
10

11 WHEREAS, Hawaii has experienced three coral bleaching
12 events in the past five years, including the first statewide
13 mass bleaching event in 2015; and
14

15 WHEREAS, coastal risks are expected to increase in the
16 future from the effects of climate change, including an increase
17 in the number and severity of hurricanes, higher levels of
18 rainfall in fewer storm events, increasing sea surface
19 temperatures, and increased ocean acidification, which will
20 negatively impact coral reefs, lobsters, oysters, and other
21 calcifying organisms; and
22

23 WHEREAS, global losses due to natural catastrophes and
24 tropical hurricanes have increased in recent decades; and
25

26 WHEREAS, these storms impact national and local economic
27 productivity, threaten water and food security, increase
28 diseases, damage critical public infrastructure, and impede
29 basic services; and
30

31 WHEREAS, the exposure of communities and coastal assets to
32 flooding and erosion is also increasing because coastal
33 ecosystems that serve as a first line of defense, such as
34 wetlands and coral reefs, are being lost at alarming rates; and
35

36 WHEREAS, these coastal ecosystems protect people and assets
37 on the coast by reducing wave energy, trapping sediments, and
38 attenuating storm surge; and
39

40 WHEREAS, ten million visitors travel to the State annually
41 to experience the beauty of its beaches, reefs, oceans, and



1 other natural resources, and in doing so contribute nearly
2 \$17,000,000,000 to our state economy annually; and

3
4 WHEREAS, the health and sustainability of our communities
5 and economy are closely intertwined with the health of our coral
6 reefs and coastal ecosystems; and

7
8 WHEREAS, in 2018, the Mexican state government of Quintana
9 Roo partnered with the local hotel owners' association, The
10 Nature Conservancy, and a local marine park to establish a
11 Coastal Zone Management Trust Fund to manage and restore beaches
12 and coral reefs, funded in part through local tourism taxes; and

13
14 WHEREAS, in mid-2019, the Trust purchased the world's first
15 Reef Insurance policy that will provide funds to quickly restore
16 the coral reef if damaged in a hurricane; and

17
18 WHEREAS, the reef insurance policy covers damage to the
19 reef rather than damage to the private property on the
20 coastline, thus insuring nature itself; and

21
22 WHEREAS, The Nature Conservancy is conducting a feasibility
23 assessment to determine whether reef insurance may help protect
24 and restore Hawaii's reefs after a natural disaster; and

25
26 WHEREAS, this feasibility assessment is scheduled to be
27 completed by October 2020, and will assess the biological,
28 political, economic, cultural, and social feasibility of reef
29 insurance in the islands; now, therefore,

30
31 BE IT RESOLVED by the House of Representatives of the
32 Thirtieth Legislature of the State of Hawaii, Regular Session of
33 2020, that the Legislature encourages the completion of The
34 Nature Conservancy's feasibility assessment; and

35
36 BE IT FURTHER RESOLVED that the Department of Land and
37 Natural Resources, Department of Transportation, appropriate
38 state and county agencies, The Nature Conservancy, and other
39 experts and partners are urged to cooperate to develop an
40 implementation plan identifying and proposing to the 2021
41 Legislature specific, nature-based projects that can help
42 protect the State's coastal infrastructure from inundation,



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1 including the use of insurance and other market mechanisms that
 2 incentivize public and private investment to protect the health
 3 and function of reefs and other coastal systems and restore
 4 these reefs and other coastal systems after a natural disaster;
 5 and

6
 7 BE IT FURTHER RESOLVED that The Nature Conservancy is
 8 requested to share the results of its feasibility assessment
 9 with the 2021 Legislature along with any recommendations for
 10 nature-based solutions to help protect Hawaii's coasts from
 11 flooding and inundation; and

12
 13 BE IT FURTHER RESOLVED that certified copies of this
 14 Resolution be transmitted to the Governor, Chairperson of the
 15 Board of Land and Natural Resources, Director of Transportation,
 16 Co-Chairpersons of the Hawaii Climate Change Mitigation and
 17 Adaptation Commission, each member of the Hawaii Climate Change
 18 Mitigation and Adaptation Commission, and Executive Director of
 19 The Nature Conservancy of Hawaii.

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OFFERED BY: Nicole E. Lowen

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