

MAR 07 2023

SENATE RESOLUTION

DESIGNATING HAWAII'S CORAL REEFS AS CRITICAL NATURAL
INFRASTRUCTURE AND STRONGLY SUPPORTING NATURE-BASED
SOLUTIONS SUCH AS CORAL REEF RESTORATION FOR RISK
REDUCTION.

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

6
7 WHEREAS, studies have shown that healthy coral reefs can
8 absorb up to ninety-seven percent of wave energy, protecting
9 coastal properties from the power of the sea by reducing wave
10 energy, trapping sediments, and attenuating storm surge, and one
11 study has estimated that Hawaii's coral reefs protect
12 \$836,000,000 worth of coastal infrastructure from flooding
13 annually; and

14
15 WHEREAS, in addition to coastal protection, Hawaii's coral
16 reefs provide residents with income from fishing and tourism,
17 food security, recreational opportunities, and a cultural
18 connection to their island home; and

19
20 WHEREAS, ten million visitors travel to the State annually
21 to experience the beauty of its beaches, reefs, oceans, and
22 other natural resources, and in doing so contribute nearly
23 \$17,000,000,000 to our state economy annually; and

24
25 WHEREAS, the State's coastal areas and infrastructure face
26 climate change-related risks and disaster events, including
27 exposure to storms, high wave events, sea level rise, and
28 flooding, and climate scientists and other experts predict an
29 increase in the number and severity of hurricanes, higher levels
30 of rainfall in fewer storm events, increasing sea surface



1 temperatures, and increased ocean acidification, which will
2 negatively impact coral reefs; and

3
4 WHEREAS, the health and sustainability of the State's
5 communities and economy are closely intertwined with the health
6 of our coral reefs but are being threatened by global stressors
7 related to climate change, such as sea level rise, as well as
8 coral bleaching and ocean acidification; and by local stressors
9 from land-based sources of pollution, unsustainable fishing
10 practices, and invasive species; and

11
12 WHEREAS, coastal ecosystems, such as coral reefs, that
13 serve as a first line of defense are being lost at alarming
14 rates; and

15
16 WHEREAS, live coral cover has declined by as much as forty
17 percent in some areas, and Hawaii has experienced three coral
18 bleaching events in the past ten years, including the first
19 statewide mass bleaching event in 2015; and

20
21 WHEREAS, storms impact national and local economic
22 productivity, threaten water and food security, increase
23 diseases, damage critical public infrastructure, and impede
24 basic services; and

25
26 WHEREAS, the Federal Emergency Management Agency is
27 responsible for responding to natural disasters and providing
28 technical and financial hazard mitigation support, and this
29 support is primarily distributed as grant funding through the
30 Federal Emergency Management Agency's Hazard Mitigation
31 Assistance programs; and

32
33 WHEREAS, there is growing interest in the use of coral
34 restoration for hazard mitigation action to reduce risks to
35 people and property; and

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37 WHEREAS, coral reef restoration for risk reduction is an
38 active restoration strategy with the aim of increasing the
39 structural integrity and complexity of coral reef ecosystems to
40 attenuate wave energy and reduce coastal flooding; and



1 WHEREAS, a recent report by The Nature Conservancy
2 concluded that coral reef restoration for risk reduction is a
3 cost-effective hazard mitigation strategy in Hawaii; and
4

5 WHEREAS, the Federal Emergency Management Agency provides
6 financial assistance to all states, territories, and federally
7 recognized tribal governments of the United States through its
8 Hazard Mitigation Assistance programs, including its Building
9 Resilient Infrastructure and Communities program; and
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11 WHEREAS, legislative recognition of coral reefs as critical
12 natural infrastructure demonstrates political support for
13 nature-based solutions, and the level of a State's political
14 support is an important metric when the Federal Emergency
15 Management Agency directs activities and funding toward coral
16 reef restoration for risk reduction projects; now, therefore,
17

18 BE IT RESOLVED by the Senate of the Thirty-second
19 Legislature of the State of Hawaii, Regular Session of 2023,
20 that this body designates Hawaii's coral reefs as critical
21 natural infrastructure and strongly supports nature-based
22 solutions such as coral reef restoration for risk reduction; and
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24 BE IT FURTHER RESOLVED that certified copies of this
25 Resolution be transmitted to the Governor, Chairperson of the
26 Board of Land and Natural Resources, and Administrator of the
27 Hawaii Emergency Management Authority.
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OFFERED BY: 

