



HB186
RELATING TO THE ENVIRONMENT
House Committee on Energy & Environmental Protection

January 31, 2023

8:30 AM

Room 325

The Administration of the Office of Hawaiian Affairs (OHA) intends to recommend to the Board of Trustees to **SUPPORT WITH AMENDMENTS** for HB186, which would prohibit the mining, extraction, and removal of minerals from the seabed in all state marine waters.

Hawaii State Constitution, Article XI, section 1 provides as follows: “For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawaii’s natural beauty and all natural resources, including land, water, air, minerals, and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State. All public natural resources are held in trust by the State for the benefit of the people.”

The seabed in all state marine waters, are a part of the ceded lands¹ to Section 5(f) of the Act refers to the crown and government lands of the Hawaiian Kingdom, which had been designated “ceded” to the Republic of Hawai‘i, and then to the United States. The Act conveyed these lands to the new State of Hawai‘i with the caveat that revenues were to constitute a trust for five purposes. One of these was the betterment of the conditions of Native Hawaiians. By any measure, those conditions were sorely in need of improvement, but, by 1978, they had not changed for the better, as the state’s trust obligation went ignored.

The ceded lands, consisting of crown lands, once property of the Hawaiian monarchy, and of the government lands of the Kingdom of Hawai‘i, totaled 1.8 million acres upon annexation in 1898. Pursuant to the Joint Resolution of Annexation, all of these lands were considered transferred or “ceded” to the United States government “for the benefit of the inhabitants of the Hawaiian Islands.” Underscoring the federal trust responsibility are the findings of the US Congress in the Apology Resolution² (emphasis added):

¹ Note the term “ceded” is used to reference the classification of the lands in discussion and does not imply an acceptance of the illegal overthrow of the Hawaiian monarchy in 1893, the subsequent United States actions of annexation, territorial government and statehood. This testimony notes that the lands were ceded without the consent of or compensation to the Native Hawaiian people of Hawaii or other sovereign government (P.L. 103-15019)

² Public Law 103-150 (1993)

“Whereas, the Republic of Hawaii also ceded 1,800,000 acres of crown, government, and public lands of the Kingdom of Hawaii, without the consent of or compensation to the Native Hawaiian people of Hawaii or their sovereign government.”

“Whereas, the indigenous Hawaiian people never directly relinquished their claims to their inherent sovereignty as a people or over their national lands to the United States, either through their monarchy or through a plebiscite or referendum”

Upon statehood in 1959, the federal government returned to the State of Hawai‘i all ceded lands not set aside for its own use. Section 5(f) of the Admission Act, directed the state to hold the lands in trust, listed the following five purposes: 1. The support of public education; 2. The betterment of the conditions of native Hawaiians as defined in the Hawaiian Homes Commission Act of 1920; 3. The development of farm and home ownership; 4. The making of public improvements; and 5. The provision of lands for public use.

Thus, the Federal Government delegated a portion of its fiduciary duties to the indigenous peoples of Hawai‘i, which courts have found must be “judged by the most exacting fiduciary standards,” to the State of Hawai‘i via the Admissions Act, Section 5(f) of the public trust lands. Yet 63 years after statehood, the State does not have a complete inventory of classified public trust lands. In addition, a complete inventory of ceded lands, including classifications by former Kingdom Government and Crown lands, and by holdings by the federal, state and county governments, is critical for the federal government to uphold its federal trust responsibility to Native Hawaiians.

OHA works to advocate on behalf of the Native Hawaiian community for the protection of the Native Hawaiian culture, language, and people. The ocean and its resources are integral, not only to Native Hawaiian culture, but to the identity of the Native Hawaiian people. Protecting the health and life of the ocean is in essence, tantamount to protecting the health and life of the Native Hawaiians, Hawai‘i, and all those who call Hawai‘i home. Without the ocean, there is no life.

The global consensus on seabed mining has been moving toward a prohibition on the exploitation of seabed minerals to protect the health of the ocean, with indigenous peoples across the world leading the charge. Following a meeting of the International Group of Seven (G7) in Berlin from May 26-27, 2022, the G7 Ministers of Climate, Energy, and the Environment released a Communiqué highlighting the G7’s position that deep-sea mining could have *“potentially devastating impacts on marine ecosystems and the functioning of the ocean as a climate regulator”* and stated that the international regulation of deep-sea mining is necessary.³ During the 2022 UN Ocean Conference in Lisbon, the nations of Palau and Fiji launched an alliance advocating for a moratorium on deep sea mining.⁴ the Prime Minister of Fiji called for a ban on deep seabed mining

³ International Group of Seven, “G7 Climate, Energy and Environment Ministers’ Communiqué”, G7 Germany 2022, May 27, 2022 (available at https://www.bmuv.de/fileadmin/Daten_BMU/Download_PDF/Europa_International/g7_climate_energy_environment_ministers_communique_bf.pdf)

⁴ Catarina Demony *et al*, “‘Not worth the risk’: Palau, Fiji call for deep-sea mining moratorium”, Reuters, June 27,

by 2030, and it was noted by the conference that “[c]ivil society representatives almost uniformly advocated a moratorium on deep seabed mining.”⁵ Prior to the UN-affiliated International Seabed Authority Council in Kingston, Jamaica, from October 31 – November 11, 2022, 10 of the Council’s 36 member states took positions against deep sea mining, with *Germany, France, Spain, Costa Rica, New Zealand, Chile, Panama, Fiji, and the Federated States of Micronesia demanding “a moratorium on mining due to a lack of scientific data on the areas of the seabed targeted for exploitation”*, while at the 2022 United Nations Climate Change Conference, *President Emmanuel Macron of France “called for an outright ban on deep sea mining”*.⁶

While OHA supports the purpose of this measure, the proposed prohibition on the mining, extraction, and removal of minerals from the seabed, “carve out”, not applying to “scientific research or collections conducted by, or on behalf of, an educational, scientific, or research institution[.]” concerns OHA for two reasons: 1) This measure gives overriding deference to a very broad range of practitioners and practices under the umbrella of ‘scientific research,’ while remaining silent on the observation and experience -based traditional and customary practices of the Native Hawaiian people, whose indigenous ecological knowledge has been widely recognized for their contribution to sustainable advancements still applicable throughout the pae ‘āina, today; and 2) Educational, scientific, or research institutions actual “scientific research or collections” could be interpreted and classified as “mining, extraction, and removal of minerals” activities. For this reason, the OHA offers the following amendment in support of this measure’s purpose, and operationally recommends a mechanism to monitor the activities in the “carve out” language:

(f) Nothing contained in this section shall diminish, alter, or amend any existing rights, privileges or practices of the Native Hawaiian people; nor shall the obligations of the State to the Native Hawaiian people be absolved.

OHA appreciates the opportunity to support this measure and asks the Legislature to **PASS HB186 with the recommended amendments** to preserve and protect Native Hawaiian cultural rights, practices, and traditions, for our precious natural environment. Mahalo nui loa.

2022 (available at <https://www.reuters.com/business/environment/not-worth-risk-palau-fiji-call-deep-sea-mining-moratorium-2022-06-27/>)

⁵ United Nations, “Report of the 2022 United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development”, UN Ocean Conference in Lisbon, Portugal, June 27 – July 1, 2022, (available at <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N22/454/51/PDF/N2245451.pdf?OpenElement>)

⁶ Woody, Todd, “More Governments Are Turning Against the Rush to Mine the Deep Sea”, Bloomberg News, November 7, 2022 (available at <https://www.bloomberg.com/news/articles/2022-11-07/more-governments-are-turning-against-the-rush-to-mine-the-deep-sea>)



To: The Honorable Chair Nicole Lowen, Vice-chair Elle Cochran, and members of the House Committee on Energy and Environment

From: Hawai'i Reef and Ocean Coalition (by Ted Bohlen)

Re: Hearing HB186 **RELATING TO THE ENVIRONMENT**

Hearing: Tuesday, January 31, 2023, 8:30 a.m.

Aloha Chair Lowen, Vice Chair Cochran, and members of the Committee:

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.

The Hawai'i Reef and Ocean Coalition STRONGLY SUPPORTS HB186

This Act would prohibit the mining, extraction and removal of minerals from the seabed in all state marine waters.

Seabed mining poses an unacceptably high risk of damage and disruption to the marine environment, including our globally significant ecosystems that host thousands of species. It also may threaten ocean-dependent industries such as commercial and recreational fishing and tourism. The Legislatures of California, Oregon, and Washington have all passed similar legislation.

We thank the committee for hearing this important measure! We respectfully urge your passage of HB186 in order to protect our marine ecosystems and ocean-dependent industries.

Mahalo!

Hawai'i Reef and Ocean Coalition (by Ted Bohlen)



Environmental Caucus of
The Democratic Party of Hawai'i

To: The Honorable Nicole E. Lowen, Chair
The Honorable Elle Cochran, Vice Chair
Committee on Energy & Environmental Protection

Re: **HB 186 – RELATING TO THE ENVIRONMENT**
Hearing: Tuesday, January 31, 2023, 8:30 a.m., Conference 325, via videoconference

Position: **Strong support**

Aloha, Chair Lowen, Vice Chair Cochran and Members of the Committee on Energy & Environmental Protection:

The Environmental Caucus of the Democratic Party of Hawai'i stands in strong support of HB 186. This measure prohibits the mining, extraction, and removal of minerals from the seabed in all state marine waters. It further prohibits the issuance of any permit for or in connection with the development or operation of any facility or infrastructure associated with the mining, extraction, or removal of minerals from the seabed within state marine waters.

As provided in the Democratic Party of Hawai'i Platform adopted at the DPH State Convention on May 28, 2022, our policy is to “protect and preserve Hawai'i's environment and achieve energy sustainability, advance measures to re-establish a healthy climate and environment for humans and fellow species, including actions to urgently address climate change, and work towards 100% renewable energy goals.

We believe that all people have the right to live in a clean, healthy and safe environment. We believe that the preservation of our natural environment and its ecological well-being is essential to ensuring a safe, healthy, bountiful life for future generations in Hawai'i. We support policies that create a more sustainable society. We support the restoration, preservation, and protection of native ecosystems.

We believe in the resource management principles outlined in the Public Trust Doctrine of the Hawai'i State Constitution. We support policy that incorporates indigenous resource-management practices and technologies such as the Ahupua'a System in modern urban planning and development to create an ecologically sustainable balance between the needs of the people and the rights of nature.”

The prohibition against mining, extraction, and removal of minerals from the seabed in all state marine waters is consistent with the Public Trust Doctrine and the policies of the Democratic Party of Hawaii. Please support and pass this bill.

/s/ Melodie Aduja & Alan Burdick
Co-Chairs, Environmental Caucus of the Democratic Party of Hawai'i

HB 186

Seabed Mining
Prevention Act

CARES

COMMUNITY ADVOCACY RESEARCH EDUCATION SERVICES

to.

Aloha Chair, Vice chair & the Committee of EEP,

the House
Committee
EEP

The Hawaii State
Legislature

Seabed Mining (SBM) is a growing industrial field that involves extracting minerals from the sea floor. Although there is no comprehensive tally of value of all marine resources, a World Economic forum report in 2014 say the gold in the international seabeds are worth at least \$150 trillion.

Nickel, copper, cobalt, manganese, zinc and other metals & minerals are extracted for electronics or batteries.² In the international waters of Hawaii & Mexico, there are metals exploited for technology and electric vehicles. The Metals Company from Australia published that in these waters, there is enough cobalt & nickel to fuel 4.8 billion electric vehicles.

from

Zhizi Xiong
(Angela
Melody
Young)

Creator

4

But how does exploitative mining affect marine resources? There are many environmental impacts including destruction of coral reefs, destruction of natural land forms and destruction of the wildlife that lives there. Noise effects the whales, dolphins and other marine mammals. ³ The beautiful beaches are also inevitably affected by Seabed Mining activities.

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CARES

The bill talks about a global moratorium and we do see an international movement trying to stop the toxic environmental impacts of seabed mining. The International Seabed Authority from the UN Convention on the Law of the Sea regulates all mineral-related activities in the international seabeds.



There was a speech to the First Committee of the United Nations General Assembly, in which an ambassador called for the resources of the sea to be designated as the "common heritage of mankind" and urged the creation of a system of international regulation to prevent technologically advanced countries from colonizing and monopolizing marine resources.¹ "History is fraught with hard lessons learned about destroying what we do not know or understand." The debate about the ethics puts geologists, conservationists, environmentalists against manufacturers & businesses in this argument of clean energy vs. profit. And yet, to find a solution for sustainable energy will require the key industries players to work collaboratively together for a bright new future. A future that won't require us to sacrifice our marine ecosystems and compromise the impact of biodiversity on our planet for faster Macbooks and sleeker Teslas.

Blessings,



ANGELA MELODY YOUNG

Zhizi Xiong





The Honorable Nicole Lowen
Hawai'i House of Representatives
Hawai'i State Capitol, Room 436
415 S Beretania St, Honolulu, HI 96813

Dear Representatives Lowen, Cochran, Ganaden, Perruso, and Poepoe:

We write to express our thanks and support for your leadership in authoring House Bill 186 to 1) prohibit the mining, extraction, and removal of minerals from the seabed in Hawai'i's marine waters; and 2) prohibit the issuance of any permit for or in connection with the development or operation of any facility or infrastructure associated with the mining, extraction, or removal of minerals from the seabed within state marine waters.

Every new research dive to the seafloor reveals amazing wildlife and new discoveries about the role the deep sea plays in the health of our ocean and our lives. Seabed mining directly destroys whole communities of life on the seafloor, leaving behind habitat that may never recover. Mining also creates extremely large and potentially toxic sediment plumes; as well as noise, light, and thermal pollution that disrupt marine habitats. [More than 700 ocean scientists](#) have called for a halt to seabed mining citing the risks it poses to ocean health and the well-being of coastal communities.

Hawai'i cannot afford to risk losing our social, cultural, and economic connections to the sea. The seafloor and ocean underpin Hawai'i's cultural heritage, along with its multi-billion dollar tourism and fishing industries. As the extractive industry grows, seabed mining activities pose a

large-scale disruption to these important ecosystems. Seabed mining would harm commercially and recreationally important species like tuna/ahi, mahi-mahi, billfish and other species as well as the overall health of our ocean.

The State of California passed a ban on seabed mining in state waters last year in 2022, following Washington's seabed mining ban in 2021 and Oregon's in 1991. The undersigned organizations urge Hawai'i to do the same and ensure passage of SB376 to protect Hawai'i's coastal waters.

Thank you.

Sincerely,

Koda Daily
Executive Director
Sustainable Ocean Alliance Hawai'i

Nina Jensen
Chief Executive Officer
Rev Ocean

Lance Morgan
President
Marine Conservation Institute

John Hocevar
Oceans Campaign Director
Greenpeace USA

Neal Desai
Senior Director of Field Operations, Pacific
National Parks Conservation Association

Courtney Vail
Director of Strategic Campaigns
Oceanic Preservation Society

Douglas McCauley
Director
Benioff Ocean Science Laboratory

Jeff Boehm
Chief External Relations Officer
The Marine Mammal Center

Bobbi-Jo Dobush
Legal Officer
The Ocean Foundation



Aloha Committee Chair Lowen, Vice Chair Cochran, and members of the Committee,

I submit written testimony supporting HB186 as a marine biologist focused on the little-known habitats and animals of the deep ocean, and how our actions are impacting them. Although now based at the Benioff Ocean Science Laboratory at the University of California, Santa Barbara, I spent many years as a researcher at the School of Ocean and Earth Science and Technology at the University of Hawai'i at Manoa.

Thank you for the opportunity to testify and express my strong support for HB186 1) Prohibiting the mining, extraction, and removal of minerals from the seabed in all state marine waters; and 2) Prohibiting the issuance of any permit for or in connection with the development or operation of any facility or infrastructure associated with the mining, extraction, or removal of minerals from the seabed within state marine waters.

Most of Hawai'i's deep sea is unexplored and poorly understood, but despite this, we know it is home to incredible biodiversity. This includes some of the world's oldest gold and black corals, aged at many thousands of years old. The richness and diversity of life in Hawai'i's deep sea supports ecosystem processes necessary for ocean and planetary systems to function, and is connected to Hawai'i's shallow seas, coasts and land. It is also an integral part of the culture and well-being of local communities, as well as ocean-dependent industries.

Deep-sea mining would result in the irreversible loss of biodiversity, ecosystems and their functioning before we know, understand and value them. These impacts could have far-reaching effects, from the potential contamination of commercially important species of food fish, such as ahi and opah, to impacts on carbon sequestration dynamics and climate regulation.

As a scientist, I deeply value evidence-based decision making, especially in instances as consequential as a decision to open up an entirely new frontier of the ocean to large-scale industrial resource exploitation. This is why [more than 700 scientists](#) have signed a statement calling for a delay to the start of deep-sea mining in international waters. The sheer importance of the ocean to Hawai'i's planet and people, and the risk of large-scale and permanent loss of biodiversity and ecosystems necessitates a pause of all efforts to begin mining of the deep sea, in line with the precautionary principle, and an acceleration of research so that we can gain a better understanding of what is at stake.

Sincerely,
Diva Amon, Ph.D.
Science Advisor
Benioff Ocean Science Laboratory

WRITTEN ONLY

Testimony by Evelyn Eckberg
To the House Committee on Energy & Environmental Protection
On
House Bill No. 186

**Tuesday, January 31, 2023
8:30 AM
VIA VIDEOCONFERENCE
Conference Room 325
State Capitol
415 South Beretania Street**

Honorable Chairman Lowen, Vice-Chairman Cochran and Committee Members.

My name is Evelyn Eckberg, I am a student at the University of Hawai'i, Mānoa and I am writing in support of this bill, the Hawai'i Seabed Mining Prevention Act.

Our oceans are under threat from climate change, pollution, and even overfishing. Seabed mining is but the latest threat. While all the impacts of seabed mining are not known, many concerns have been expressed by scientists regarding the noise the machinery will have on marine life as well as how mining would affect marine plants and animals that call the seabed their home. As the seabed itself is "mined," marine life will be destroyed and as unwanted sand (sediment plume) is dumped back into the ocean, there is also concern that marine life would be smothered. With the delicate and complex food chain in the ocean, this can disrupt the food chain and in the long run, affect our food supply and industries that rely on the ocean as fishing and tourism. Thus, there are negative impacts seabed mining may result in that we may not see or understand for years.

While I have focused on marine life, as have most scientists, what has not had much attention or discussion is potential life forms that may live in the seabed itself. These can include burrowing marine life, as well as microorganisms such as bacteria, archaea and eukaryotes, necessary to keep our oceans in balance. I would refer you to (Jørgensen & Boetius, 2007)

We do not know enough about the ecosystems in the ocean, until these are better understood, and safer mining techniques are developed, we cannot risk destroying our oceans. While I am not a proponent of seabed and deep-sea mining, the very minimum we can do is to prevent seabed mining in state marine waters.

Thank you for your consideration, and I would encourage you to support House Bill 186 also known as the Hawai'i Seabed Mining Prevention Act.

Respectfully submitted.

Evelyn Eckberg
Evelyn.c.eckberg@gmail.com

References

Jørgensen, B. B., & Boetius, A. (2007). Feast and famine — Microbial Life in the Deep-Sea Bed. *Nature*, 5(10), 770–781.

HB-186

Submitted on: 1/29/2023 2:00:18 PM

Testimony for EEP on 1/31/2023 8:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Lisa Bishop	Individual	Support	Written Testimony Only

Comments:

Mahalo for passing this important bill!

HB-186

Submitted on: 1/29/2023 5:17:49 PM

Testimony for EEP on 1/31/2023 8:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Virginia Tincher	Individual	Support	Written Testimony Only

Comments:

Chair Lowen, Vice Chair Cochran and Committee on Energy & Environmental Protection,

Mahalo Rep. Lowen and Cochran and others for introducing this important bill.

Mining the ocean floor results in long lasting environmental degradation that far outweighs any benefits including disruption to the vertical aquatic animal food chain, releases stored CO2 and impacts water quality.

Hawaii can set a precedent to reject ocean floor mining.

HB-186

Submitted on: 1/29/2023 5:23:20 PM

Testimony for EEP on 1/31/2023 8:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Lisa Diaz	Individual	Support	Written Testimony Only

Comments:

Aloha Representative Lowen & EEP Committee Members,

I strongly support HB186 to Prohibit the mining, extraction, and removal of minerals from the seabed in all state marine waters. Prohibits the issuance of any permit for or in connection with the development or operation of any facility or infrastructure associated with the mining, extraction, or removal of minerals from the seabed within state marine waters.

Mahalo, Rep.Lowen and commitee members for leading the EEP commiitee and hearing HB186 to protect Hawaii's marine eco-systems,critically important to Hawaii's economy for tourism, fisheries/ food security, marine wildllfe,coral reef and shorline stability for Hawaii residents and future generations.

Mahalo with Aloha,

Lisa Diaz

76-223 Haoa St

Kailua-Kona, HI 96740

HB-186

Submitted on: 1/29/2023 9:10:17 PM

Testimony for EEP on 1/31/2023 8:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Gerdine Markus	Individual	Support	Written Testimony Only

Comments:

Please support this no-brainer bill for our State that relies heavily on having pristine waters for food, tourism and not in the least our own enjoyment. Thank you!

HB-186

Submitted on: 1/29/2023 11:01:10 PM

Testimony for EEP on 1/31/2023 8:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Andrea Nandoskar	Individual	Support	Written Testimony Only

Comments:

Strongly support!

HB-186

Submitted on: 1/30/2023 12:26:24 AM

Testimony for EEP on 1/31/2023 8:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Sherry Pollack	Individual	Support	Written Testimony Only

Comments:

The rising ocean temperatures and increased acidification resulting from global warming have already damaged Hawaii's coral reefs and marine ecosystems. Seabed mining poses an unacceptably high risk of further damage and disruption to the marine environment of the State. It is imperative that action be taken to ensure the protection of our environment for present and future generations. Please support this important measure.

HB-186

Submitted on: 1/30/2023 12:31:48 AM

Testimony for EEP on 1/31/2023 8:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Cara Oba	Individual	Support	Written Testimony Only

Comments:

Aloha Energy and Environmental Protection Committee,

I fully support this bill. Sea bed mining has too many unknown risks and known potential risks with sediment, toxic metal dispersal, and other types of pollution/disruption that harm biodiversity and ecosystem functions. Exploration will likely ramp up in the coming years and it best serves our community to be proactive and enforce a conservative approach that protects our natural resources. We can wait for better science and we can't easily rebuild these unique ecosystems.

Mahalo,

Cara Oba

HB-186

Submitted on: 1/30/2023 12:22:01 PM

Testimony for EEP on 1/31/2023 8:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Shayne Fabian	Individual	Support	Written Testimony Only

Comments:

I am an educated aquaculture professional in the State of Hawaii, a scientist, and am involved industry-wide with companies focused on increasing food security in the state through on/offshore production of fish, limu (seaweed), microalgae, and shellfish for human consumption. I have also conducted extensive research with the Hawaii Institute of Marine Biology under Dr. Ruth Gates regarding resoration of native coral communities in Kaneohe Bay, HI that are threatened by the effects of anthropomorphic (human) influence. The evidence is abundantly clear that support of this bill will save millions of lives by maintaining the natural homeostasis of oceanic substrate that forms naturally. The implications of denying this bill are grave. I am in support of HB106.

HB-186

Submitted on: 1/30/2023 1:00:35 PM

Testimony for EEP on 1/31/2023 8:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Kyler	Individual	Oppose	Written Testimony Only

Comments:

There are a few negative consequences that comes with deep sea mining.

One major concern would be the disturbance and stir up of ocean sediments. These sediments can affect the turbidity of the water which can shade out the sunlight to our algae and corals. Both of these living things are the base of our ocean ecosystem and whatever happens to them will affect the entire food chain.

Another negative impact includes the increase in heavy metals in our water. This could lead to increased toxicity of the water or even may cause algal blooms.

Lastly, the most direct and clear consequence of mining is the destruction of the sea floor. The sea floor of any kind is home to many ocean organisms.

HB-186

Submitted on: 1/30/2023 7:20:03 PM

Testimony for EEP on 1/31/2023 8:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Will Caron	Individual	Support	Written Testimony Only

Comments:

Seabed mineral mining is not consistent with the public interest, including the right that each person has to a clean and healthy environment as enshrined in Article XI, section 9, of the State Constitution. Seabed mining poses an unacceptably high risk of damage and disruption to the marine environment of the state. It is in the best interest of the people and ecosystems of Hawai‘i that leasing for hard mineral mining on the seafloor be prohibited. Please pass HB186.