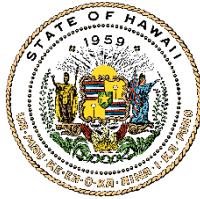


JOSH GREEN, M.D.
GOVERNOR | KE KIA'ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR | KA HOPE KIA'ĀINA



STATE OF HAWAI'I | KA MOKU'ĀINA 'O HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
KA 'OIHANA KUMUWAIWAI 'ĀINA

P.O. BOX 621
HONOLULU, HAWAII 96809

Testimony of
DAWN N. S. CHANG
Chairperson

Before the Senate Committees on
AGRICULTURE AND ENVIRONMENT
and
WATER AND LAND

Monday, January 29, 2024
1:00 PM

State Capitol, Conference Room 229 & Videoconference

In consideration of
SENATE BILL 2053
RELATING TO ENVIRONMENTAL PROTECTION

Senate Bill 2053 proposes to appropriate funds for the construction and operation of non-chemical, mineral-based sunscreen dispensers on all state beaches and allows the Department of Land and Natural Resources (Department) to contract or form a partnership with private parties to assist with the maintenance and management of these sunscreen dispensers. **The Department supports this bill, provided that its passage does not replace or adversely impact priorities indicated in the Executive FY 2025 Supplemental Budget Request, and offers the following suggestions.**

Based on recent scientific findings, the Department agrees that less use of sunscreens containing certain chemicals would benefit the health and resiliency of Hawai'i coral reef ecosystems. The Department supports the use of sunscreens that do not contain chemicals that are harmful to marine life, particularly non-nano particle, mineral-based sunscreens, as alternatives to chemical-based sunscreens.

The cost of installing, maintaining, managing, and operating mineral-based sunscreen dispensers at state beaches varies greatly depending on location, level of use, and availability of staff or volunteers to assist with installing and refilling dispensers. The Department believes that there are many community groups and individuals willing to volunteer their time to refill sunscreen dispensers. If labor is donated, the Department estimates the average annual costs could be as low as \$2,000 per dispenser. An appropriation of \$100,000 per year could fund the installation and operation of up to 50 sunscreen dispensers at beaches throughout the state.

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

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE
MANAGEMENT
RYAN K.P. KANAKA'OLE
FIRST DEPUTY
DEAN D. UYENO
ACTING 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 for SB2053

Alexandra Kahn

Owner of PlanIt Branding

Aloha Chairs and Committee Members,

I think the concept of this bill is a great idea and is in line with the non-reef safe sunscreen ban we already have in place. Chemical free sunscreens understandably cost more, and to get these sunscreens from local brands in sustainable packaging cost even more. Yet, watermen and water women want to do right and do what they can to purchase smart. Providing this for free to the local people is a huge benefit to those who frequent the water and spend quite a bit of money on sunscreen on a yearly basis.

The other big thing to consider is tourism and how, despite a law already being in place, this law does not prevent tourists from bringing in their own sunscreens from back home- a common occurrence for anyone checking luggage. If this is implemented and advertised, it saves tourists the hassle of bringing sunscreen AND insures that they are using chemical free sunscreens. It also decreases overall plastic packaging from tourists who buy many small bottles, whether reef safe or not, when they come on vacation to Hawaii.

Having dispensers also allows individuals to reapply, or for those who forgot their sunscreen, it gives them the option to use what is offered- which protects against sun damage.

I do however have a few concerns.

1) Dermatologists will tell you that sunscreen slowly deactivates in potency when kept in the sun and heat. How will this be addressed? Or will the assumption be that it will be consumed so fast that it wont be an issue?

2) How will the sunscreen brand/brands be selected? I suggest that a panel is formed that is comprised of legislators, DNLN members, and ocean focused non-profit leaders, and chemical free sunscreen brands are able to submit bids detailing the ingredients and additional details about their company.

3) I think that a local sunscreen brand/s should be favored and ideally selected in order to further boost local economy and would even help to promote those brands, should tourists wish to purchase and take home or locals wish to purchase and bring to non-state beaches.

Thank you for your time,

Alexandra Kahn



To: The Honorable Chairs Mike Gabbard and Lynn DeCoite, the Honorable Vice Chairs Tim Richards and Glenn Wakai, and Members of the Committees on Agriculture and Environment and Energy, Economic Development and Tourism

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

Re: Hearing SB2053 RELATING TO ENVIRONMENTAL PROTECTION

Hearing: Monday January 29, 2023, 1:00 p.m., room 329

Aloha Chairs Mike Gabbard and DeCoite, Vice Chairs Richards and Wakai, and Members of the Committees on Agriculture and Environment and Energy, Economic Development and Tourism!

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 deeply concerned about the harm that "chemical" sunscreens inflict on coral reefs. HIROC actively supported the passage of ACT 104 in 2018 banning sales of two chemical sunscreens, oxybenzone and octinoxate.

The Hawai'i Reef and Ocean Coalition **STRONGLY SUPPORTS SB2053**, with a proposed amendment!

Sunscreens are called “petrochemical” or “chemical” if their active ingredients are derived from petroleum. Some of the petrochemical active ingredients in widely-used sunscreens include oxybenzone, octinoxate, avobenzone, octocrylene, octisalate, and homosalate. Some petrochemical sunscreens can also be harmful to human health.

While sales and distribution of sunscreens containing oxybenzone or octinoxate are not allowed in Hawaii, many sunscreens are still being sold that contain other petrochemical ingredients harmful to coral reefs, such as octocrylene.

Proponents of petrochemical sunscreens have argued that they are needed to protect people from skin cancers. But, many petrochemical sunscreens actually provide little protection from the UVA radiation that can cause deep skin damage; by reducing sunburn from UVB radiation, they may actually encourage spending more time in the sun and potentially increasing skin cancer risks. This is known as “suntan abuse.”

In order to protect our coral reefs and the skin of those who do not avoid the midday sun or cover up, Hawaii should discourage the use of chemical sunscreens and encourage the use of mineral (non-chemical) sunscreens that contain zinc oxide or titanium dioxide as their sole active ingredient. There are many such sunscreens on the market, including ones based in Hawaii, which should be utilized.

This bill would provide for dispensers with mineral sunscreens at State beaches. This would make it easier for people to apply sunscreens that are safer for the reefs. This would help protect our reefs somewhat by making a start toward using less of the harmful petrochemical sunscreens.

The bill allows DLNR to contract with private parties who can assist with maintenance and management of the dispensers. This makes good sense, as maintenance and management will be needed.

There should also be information for the public provided on or at the dispensers. **HIROC suggests an amendment at page three, line 7, adding at the end of the sentence the words “and to inform the public by explaining that the sunscreen in the dispensers better protects the coral reefs.”**

Please pass this bill with that amendment! Mahalo!

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



TO: Senate Committee on Agriculture & Environment
Senator Mike Gabbard, Chair
Senator Tim Richards, Vice Chair

FROM: Lynn Miyahira representing Public Access to SunScreens (PASS) Coalition
DATE: Monday, Jan 29, 2024
TIME: 1:00 PM
PLACE: Conference Room 229 & Videoconference
Re: SB 2053

Position: COMMENT

The [Public Access to SunScreens](#) (PASS) Coalition is a multi-stakeholder coalition composed of public health groups, dermatologists, sunscreen manufacturers, and leading advocates for skin cancer patients.

We support public access to all sunscreens with FDA-approved UV filters. While we support the intent of providing free, public access to sunscreen for the general public via dispensers, sunscreens should not be limited to only mineral ingredients under the assumption they are “reef-safe.” There is no scientifically meaningful definition for the term “reef-safe sunscreen.”

As the CDC advises the use of broad-spectrum sunscreen to help prevent skin cancer, the most effective sunscreen is the one people are willing to use often. By providing a range of sunscreen options, encompassing both mineral and/or chemical ingredients, we increase the likelihood of people utilizing sun protection.

In August 2022, the National Academies of Sciences, Engineering and Medicine (NASEM), issued a report that found:

- There is currently insufficient evidence that sunscreens are actually harming corals in their natural environment.
- “Reef-safe” sunscreen is not a scientifically defined term and there is no regulatory definition.
- This means there is insufficient data to say that mineral sunscreen ingredients (zinc oxide and titanium dioxide) are “reef-safe.”

Within the NASEM report, they used the following chart to show what kind of acute toxicity data (or lack of data) there is about certain UV filters on marine life.

Table 1: Acute toxicity data for UV filters in sunscreens on marine life.

Source: National Academies of Sciences, Engineering and Medicine, "[Review of Fate, Exposure, and Effects of Sunscreens in Aquatic Environments and Implications for Sunscreen Usage and Human Health](#)"

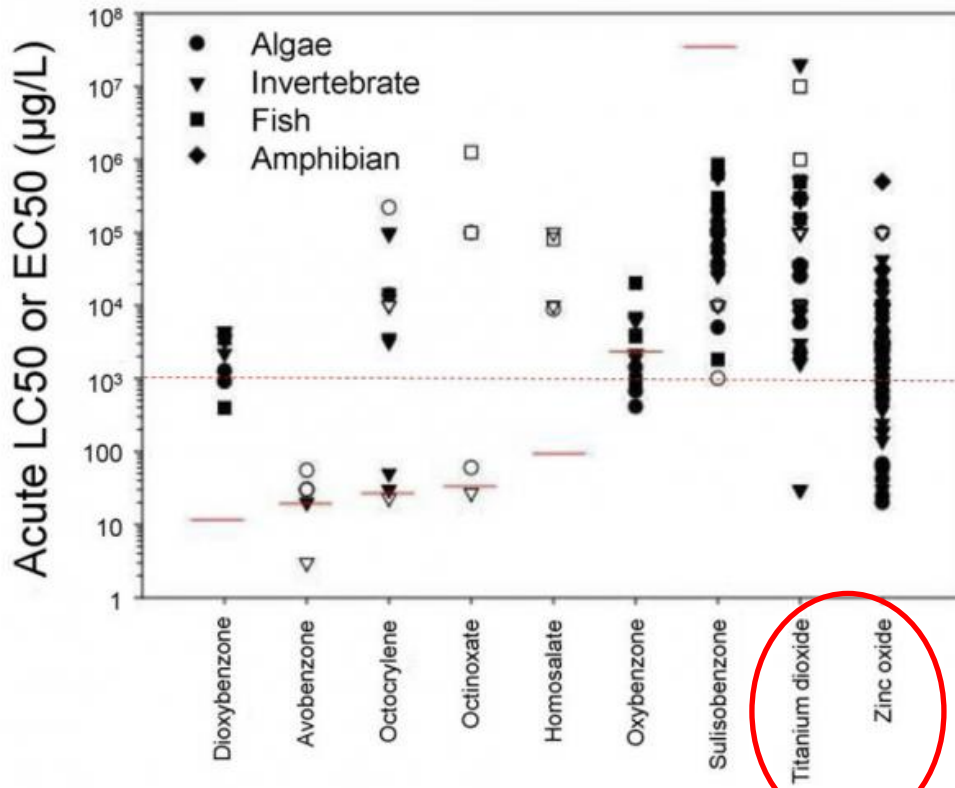


FIGURE 1 Representative acute toxicity data for select UV filters.

NOTES: 1,000 µg/L is used as a threshold for comparison across UV filters (red dashed line); toxicity at lower concentrations indicates a more toxic UV filter. However, due to the low water solubility of some UV filters (red solid lines), the potential environmental concentrations could be below toxic levels. LC/EC50 results that were unbounded (not < or >) values are displayed with closed (black) symbols whereas greater than (>) values are displayed as open (white) symbols. LC50 = Lethal concentration for 50 percent of the test population; EC50 = Concentration of nonlethal effects on 50 percent of the test population that are effectively equivalent to mortality.

This chart shows that there are numerous studies showing that zinc oxide and titanium dioxide could potentially be hazardous to marine life.

Past research that led lawmakers to ban certain UV filters (oxybenzone and octinoxate) was conducted in extreme laboratory settings at concentrations 100 to 1,000 times higher than what is generally found in the ocean. These studies are outliers, and more and more researchers agree that there is not enough evidence that sunscreens are negatively impacting coral reefs.

For example, Dr. Ku'ulei Rodgers, principal investigator at the University of Hawai'i Coral Reef Ecology Lab, was asked by the Star-Advertiser about sunscreen threats at Hanauma Bay. [In an article on Nov 20, 2021](#), she was quoted saying that "There is no strong evidence to state sunscreens threaten coral reefs." She goes on to say, "Our coral reef ecology lab has not seen the effects of sunscreen use on bleaching in our monitoring efforts. If there were effects from sunscreen it would be evident." Dr. Rodgers and her team have been studying coral reefs for over 20 years and is more focused on ridge to reef connectivity, land-based pollution, and coral responses to rising ocean temperatures.

Coral reefs face various threats like cesspools, wastewater management, storm run-off, overfishing of herbivore fish, and many others. In September 2023 article in Hawaii Business Magazine, Stuart Coleman wrote an excellent article titled, [Cesspools are Killing Hawai'i's Corals – But It Doesn't Have to Be That Way](#). Research indicates pollution from cesspools is significantly contributing to reef degradation.

While we understand the intent of this bill to provide free access to sunscreen and protect coral reefs, we urge Senators to examine all data – not only select data – on sunscreen and the marine environment. **We urge lawmakers to protect access to all sunscreens containing FDA-approved UV filters, which include both organic chemical and inorganic chemical (mineral) UV filters.**

Mahalo you for the opportunity to comment.

Sincerely,

Lynn Miyahira
Public Access to SunScreens (PASS) Coalition

SB-2053

Submitted on: 1/26/2024 10:05:16 AM

Testimony for AEN on 1/29/2024 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Uilani Naipo	Individual	Support	Written Testimony Only

Comments:

I support this measure.

Mahalo,

U'ilani

SB-2053

Submitted on: 1/28/2024 8:04:36 AM

Testimony for AEN on 1/29/2024 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Joe DiNardo	Testifying for toxicologist	Support	Written Testimony Only

Comments:

Please support this bill in order to:

(1) Expand the use of the mineral-based sunscreen dispensers to all state beaches to decrease the amount of chemicals impacting Hawai'i's reef ecosystems; and

(2) Authorize the department of land and natural resources to contract or form a partnership with private parties, such as hotels, community organizations, and nonprofit organizations with an environmental protection mission, to assist in the maintenance and management of installed mineral-based sunscreen dispensers at state beaches.

SB-2053

Submitted on: 1/28/2024 9:30:30 AM

Testimony for AEN on 1/29/2024 1:00:00 PM

Submitted By	Organization	Testifier Position	Testify
Ben Robinson	Individual	Support	Written Testimony Only

Comments:

Generally I support this, but I do see hurdles to implementation and on-going maintenance.