

DAVID Y. IGE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
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Testimony of
SUZANNE D. CASE
Chairperson

Before the House Committee on
FINANCE

Friday, February 23, 2018
2:00 PM
State Capitol, Conference Room 308

In consideration of
HOUSE BILL 2107, HOUSE DRAFT 1
RELATING TO ENVIRONMENTAL PROTECTION

House Bill 2107, House Draft 1 proposes to establish the Plastic Pollution Initiative Program with the mission to eliminate plastic waste impacting native species and polluting the State's environment, establish the Plastic Pollution Advisory Council to collect data regarding plastic pollution and provide recommendations to eliminate plastic waste, and appropriate funds. **The Department of Land and Natural Resources (Department) supports this bill provided that its passage does not replace or adversely impact priorities in the Executive Supplemental Budget request.**

The Department recognizes the deleterious impacts of marine debris on wildlife and their habitats as a primary natural resource issue throughout the State. Marine debris degrade land and ocean based habitat through smothering and abrasion and impact a variety of wildlife (aquatic and terrestrial) through ingestion and entanglement. Hawai'i has the highest reported debris accumulations in the United States' Pacific Ocean Coastlines. The Department recently conducted a state-wide survey of marine debris accumulations spanning 1,000 miles of Hawai'i's coastline and detected over 20,000 individual pieces of marine debris, primarily composed of plastics. This was considered a vast under-estimate considering the study focused only on larger, easily identifiable debris items. Smaller microplastics are also prominent throughout Hawai'i's beaches. The study also highlighted the need for marine debris management in remote stretches of coastline, not easily accessed by clean-up groups.

Although a large amount of marine debris arrives from the ocean, it is all of our responsibility to reduce the amount of debris entering and re-entering our ocean and beaches. One of the major challenges we face in managing marine debris in Hawai'i, is the lack of a coordination among

SUZANNE D. CASE
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
FIRST DEPUTY

JEFFREY T. PEARSON P.E.
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

State, City and County, and Federal agencies in addition to clean-up groups, and communities. House Bill 2107, House Draft 1's Plastic Pollution Initiative Program is a critical step in helping the Department address this issue by the establishment of an advisory council that can coordinate a state-wide marine debris management plan and fund-raise for the necessary appropriations to address this critical issue.

The Department recommends one change to the bill in that a "Plastic Pollution Advisory Council" is established, with the responsibilities described in the bill, without establishing a "Plastic Pollution Initiative Program". The wording of "Program" may lead to confusion with other Departmental programs, such as the Forestry Program.

Thank you for the opportunity to comment on this measure.



SIERRA CLUB OF HAWAII
MĀLAMA I KA HONUA. *Cherish the Earth.*

HOUSE COMMITTEE ON FINANCE

Friday, February 23, 2018 2:00PM Conference Room 308

In **SUPPORT of HB 2107 HD1** Relating to environmental protection

Aloha Chair Luke, Vice Chair Cullen and members of the Committee,

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i, a member of the Common Good Coalition, **strongly supports HB 2107 HD1**, which aims to develop a long term plan to eliminate plastic waste in Hawai'i.

The Sierra Club of Hawai'i, dedicated to exploring, enjoying, and protecting these unique and beautiful islands we call home, have engaged in decades-long efforts to protect public access to trails and beaches in addition to restoring hundreds of trails on public and private land. Part of our dedication to protect is to keep these valuable public areas free of pollution from plastics and other waste. In this case, we advocate for halting harmful plastic pollution at the source. This measure is one of many that support our collective efforts to reduce pollution across the board.

Single-use plastics pollute our lands and freshwater bodies, clog up drainage systems, harm wildlife and ultimately end up in our ocean waters--settling on our reefs and, in some places, creating large plastic island gyres. Plastics, especially for single-use, cannot typically be recycled, and pose harm to marine life. The toxins and heavy chemicals found in them are not compostable or biodegradable, and can take up to 500 years to decompose. They create an overabundance of waste that continually overflows local landfills and overflows our beaches. By reducing single-use plastics at the source, Hawai'i will have the opportunity to take on one of the most toxic and widespread of pollutants, and showcase its state sustainability goals to the nation. This effort will also enable Hawai'i to invest in the future aesthetics of the island, and more importantly the health and safety of marine life and the local population.

We urge the Committee to pass this measure, which will serve our collective efforts to keep Hawai'i's land, freshwater bodies, and oceans free of plastic pollution.

Thank you for the opportunity to testify in support of HB 2107 HD1.

HB-2107-HD-1

Submitted on: 2/21/2018 11:57:16 PM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jun Shin	Young Progressives Demanding Action - Hawaii	Support	No

Comments:

HB-2107-HD-1

Submitted on: 2/22/2018 1:57:20 PM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	OCC Legislative Priorities Committee, Democratic Party of Hawai'i	Support	No

Comments:



February 22, 2018

To: The Honorable Sylvia Luke, Chair
Members, House Committee on Finance

From: Tim Shestek
American Chemistry Council

Re: **HB 2107 HD 1 – Comments**

The American Chemistry Council (ACC) appreciates the opportunity to provide comments on HB 2107 HD 1, legislation that seeks to establish a long-term plan to eliminate plastic pollution in Hawaii's environment and reduce cleanup costs to taxpayers. ACC stands with the majority of scientists and policy makers who have found that effective marine litter solutions require an array of actions, including increased litter prevention, reducing, reusing and recycling, and other waste management infrastructure improvements.

Tackling marine debris is a complex challenge yet the plastics industry is actively engaged in efforts to respond. A landmark study published in Science Magazine identified developing countries in Asia that lack waste management as the source of the majority of plastic waste entering the oceans. By contrast the United States including Hawaii accounts for less than 1 percent of plastic marine debris.¹ Unfortunately, currents bring some of this unmanaged waste from Asia to Hawaii's shores. Thus, this is a global challenge that the plastic industry is working to address. Building on work in individual regions, trade associations representing both plastic resin makers and converters have come together to work with governments, NGOs, researchers and other stakeholders to prevent marine litter. Under the industry's "Declaration of the Global Plastics Associations for Solutions on Marine Litter" over 350 projects have been launched globally to prevent marine debris. Commitments have been made to:

- Contribute to solutions by working in public-private partnerships aimed at preventing marine debris;
- Work with the scientific community and researchers to better understand and evaluate the scope, origins and impact of and solutions to marine litter;
- Promote comprehensive science-based policies and enforcement of existing laws to prevent marine litter;
- Help spread knowledge regarding eco-efficient waste management systems and practices, particularly in communities and countries that border our oceans and watersheds;
- Enhance opportunities to recover plastic products for recycling and energy recovery; and
- Steward the transport and distribution of plastic resin pellets and products from supplier to customer to prevent product loss and encourage our customers to do the same.

In addition to Asia, we have basic waste management challenges in the US and Hawaii that need to be addressed. Just last year, ACC partnered with the City and County of Honolulu on a project to find and close off potential pathways for trash from land-based sources into the marine environment. One of the primary sources of litter found near waterways and beaches on Oahu is uncovered public trash cans that allow garbage to blow out. Through our partnership, ACC and the City and County of Honolulu identified a better design for outdoor public garbage cans to keep trash out of parks, and most importantly, out of waterways and the ocean. As part of this effort, ACC provided new cans that are now installed. Further studies will be conducted to gauge the effectiveness of this intervention. More information about our activities to help reduce marine debris can be found at: <http://www.marinedebrissolutions.com>.

¹ Jambeck, J.R., Andrady, A., Geyer, R., Narayan, R., Perryman, M., Siegler, T., Wilcox, C., Lavender Law, K., (2015). Plastic waste inputs from land into the ocean, Science, 347, p. 768-771



Generally speaking, ACC supports the intent behind HB 2107. Nevertheless, we would like to offer some specific suggestions. The bill proposes to create the plastic pollution advisory council consisting of various stakeholders. ACC urges your committee to expand the makeup of the advisory council to include representatives of restaurants, the plastics manufacturing industry, plastic packaging producers, retailers, and the grocery product industry. Including representation of these sectors will help ensure the task force can draw upon an array of expertise and resources related to marine debris, recycling, litter prevention, packaging design and use, as well as potential impacts any public policy option might have on the broader business community.

ACC also urges you to be mindful of the potential unintended environmental impacts associated with any effort that focuses exclusively on plastic materials. While some may suggest that simply eliminating plastic materials will have a net benefit on the environment, this assumption is not supported by scientific fact. A 2016 study found that the environmental cost of using plastics in consumer goods and packaging is nearly four times less than it would be if plastics were replaced with alternative materials.² Strong, lightweight plastics help us do more with less material, which provides environmental benefits throughout the lifecycle of plastic products and packaging.

This type of information and background is essential for any effort that looks at potential public policy options for addressing marine debris. Thank you for the opportunity to share these comments. Should you have any questions, please do not hesitate to contact me or ACC's Hawaii based representative Ross Yamasaki at 808-531-4551.

² https://www.plasticpackagingfacts.org/wp-content/uploads/2016/08/ACC-report_July-2016_v4.pdf

HB-2107-HD-1

Submitted on: 2/21/2018 5:33:55 PM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Nancy Davlantes	Individual	Support	No

Comments:

HB-2107-HD-1

Submitted on: 2/22/2018 4:03:31 AM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Michael Reed Gach	Individual	Support	No

Comments:

For environmental Protection -- the effort of this bill is worthwhile --
Please support for cleaning up and disposing of polystyrene products in each county.

We need to significantly restrict the use of polystyrene products

I urge the support of HB2107.

Michael Reed Gach
Maui Resident

HB-2107-HD-1

Submitted on: 2/22/2018 8:17:13 AM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Nathan Yuen	Individual	Support	No

Comments:

Dear Chair Sylvia Luke and Vice-Chair Ty J.K. Cullen:

I strongly support HB2107 HD1 which aims to develop a long term plan to eliminate plastic waste in Hawaii.

The disposal of plastic is huge problem to Hawaii. Plastic does not biodegrade and remains in the environment indefinitely where the often end up in the ocean. Sunlight oxydizes plastic and breaks them into smaller and smaller pieces until they are tiny enough to be ingested by fishes where they enter the food chain.

An estimated five million to thirteen million tons of plastic debris enter the oceans every year, which has contributed to creating the Pacific garbage gyre, a mass of plastic debris floating in the Pacific Ocean north of Hawaii. Plastic from the gyre often reaches Hawaii where it harms our wildlife and beaches.

Hawaii residents generate 2.8 tons of waste per person per year, more waste per capita than the residents of any other state. More than eighty per cent of the plastic entering the Pacific Ocean comes from land-based litter and pollution which can be prevented.

The bill seeks to develop a long-term plan to eliminate plastic pollution in Hawaii's environment and reduce cleanup costs to taxpayers through the establishment of a committee to collect data, identify next steps, and provide recommendations.

Thank you for this opportunity to testify on this important matter. I strongly support HB 2107 and urge you to pass this from your committee.

Sincerely,

Nathan Yuen

HB-2107-HD-1

Submitted on: 2/22/2018 9:09:49 AM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Mary Lacques	Individual	Support	No

Comments:

HB-2107-HD-1

Submitted on: 2/22/2018 10:44:02 AM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Benton Kealii Pang, Ph.D.	Individual	Support	No

Comments:

HB-2107-HD-1

Submitted on: 2/22/2018 11:16:11 AM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Denise Boisvert	Individual	Support	No

Comments:

If there is the no-brainer bill of the year so far, HB 2107 is it. How long will it take to stop the use of harmful and wasteful plastic and polystyrene products that cause so much pollution, health problems, and death of humans, wildlife and marine life?

I fully support it and any initiative to move toward the full banishment of such products in Hawaii, the mainland, and the planet.

HB-2107-HD-1

Submitted on: 2/22/2018 11:20:56 AM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Merle Hayward	Individual	Support	No

Comments:

SUPPORT HD1

HB-2107-HD-1

Submitted on: 2/22/2018 11:27:59 AM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Kim Jorgensen	Individual	Support	No

Comments:

I support Bill 2107 because it will give us a long-term plan to eliminate plastic waste for the health and safety of humans, wildlife, oceans, and the environment.

Think of your children, grandchildren, and all future generations who will thank you for passing this bill.

HB-2107-HD-1

Submitted on: 2/22/2018 12:04:17 PM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Shannon Rudolph	Individual	Support	No

Comments:

Support

HB-2107-HD-1

Submitted on: 2/22/2018 1:33:11 PM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Javier Mendez-Alvarez	Individual	Support	No

Comments:

HB-2107-HD-1

Submitted on: 2/22/2018 1:47:01 PM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Sarah Toole	Individual	Support	No

Comments:

I strongly support this measure.

Sarah Toole

1128 Ala Napunani St 96818

UH Manoa Political Science student

Charessa Fryc
954 Akepo Lane Honolulu, HI 96817
February 22 2018

In SUPPORT of Hb2107 Relating to environmental protection

Aloha Chair Sylvia Luke, Vice Chair Ty J.K. Cullen, and members of the committee, my name is Charessa Fryc and I am a student at the University of Hawaii, as well as the environmental committee chair of YPDA, and Co chair of the Sierra student Coalition at the University of Hawaii at Manoa, and I am in strong support of Hb2107, which is a long term plan to eliminate plastic wastw in the state of Hawaii.

As you may already know, plastic waste is detrimental to our environment, and hazardous to our wildlife, and native species. In Hawaii alone, we have trash found on our beaches, oceans, and spread all over our rural areas. It's messed and it's harmful and we need to have a plan to get rid of plastic waste.

Plastic does not biodegrade, and remains in our environment for hundreds to thousands of years, and it end up in our oceans, in our sea life, and ultimately ends up in our forests as well. It's ingested by ocean creatures, and found in the noses of our precious sea turtles. Disposal of plastic waste is a huge problem, because we don't have a proper way to dispose of it, and it ultimately turns into microplastics, creating a toxic environment for our sea life, once it gets in the ocean.

An estimated five million to thirteen million tons of plastic invades the ocean every year, which has contributed to creating the Pacific garbage gyre, a mass of plastic debris floating in the Pacific Ocean north of Hawai'i. Plastic from the gyre often reaches Hawai'i where it harms our wildlife and leaves unsightly litter on our beaches.

Hawai'i residents alone generate 2.8 tons of waste per person per year, more waste per capita than the residents of any other state in the nation. More than eighty percent of the plastic entering the Pacific Ocean comes from land-based litter and pollution, which can be prevented starting with measures such as HB 2107.

The bill seeks to develop a long-term plan to eliminate plastic pollution in Hawai'i's environment and reduce cleanup costs to taxpayers through the establishment of a committee to collect data, identify next steps, and provide recommendations.

Mahalo for this opportunity to testify on this important matter. I strongly support HB 2107.

LATE

HB-2107-HD-1

Submitted on: 2/22/2018 5:22:54 PM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Sandra Fujita	Individual	Support	No

Comments:

LATE

HB-2107-HD-1

Submitted on: 2/22/2018 5:24:33 PM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jennifer Milholen	Individual	Support	No

Comments:

HB-2107-HD-1

Submitted on: 2/22/2018 8:08:05 PM

Testimony for FIN on 2/23/2018 2:00:00 PM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
Cory Harden	Individual	Support	No

Comments:

HB-2107-HD-1

Submitted on: 2/22/2018 8:50:14 PM

Testimony for FIN on 2/23/2018 2:00:00 PM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
Sherry Pollack	Individual	Support	No

Comments:

LATE

HB-2107-HD-1

Submitted on: 2/22/2018 9:08:22 PM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Rachel Rounds	Individual	Support	No

Comments:

LATE

HB-2107-HD-1

Submitted on: 2/22/2018 11:28:17 PM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Susan Bambara	Individual	Support	No

Comments:



O'ahu
Chapter

LATE

HB 2107: Strong Support
Hearing: February 23rd 2018. 2PM
House Committee on FIN

Dear Chair Luke & Members of the House FIN Committee

Surfrider Foundation's O'ahu Chapter is deeply concerned about plastics on our beaches, in our nearshore waters, and now found in marine life that calls these areas home. It has become a significant threat to the health of our islands. As a country, our citizens produce more than double per capita plastic waste of China and five times that of Indonesia, while (with Europe), housing 95% of the companies, lobbyists, and industries in the plastic economy (WEF 2016). By centering our eye on, Hawai'i, the U.S. state with the highest rates of waste generation (doubling the national average) and the beaches inundated with the Pacific Gyre's rapidly increasing plastic pollution (CNN 2016) we are at the heart of the global plastic problem. Up to 80% of the plastic in our oceans comes from land-based sources, estimated at 5-13 million tons of plastic. Hawai'i is uniquely positioned to focus the narrative of plastic solutions and our State has the opportunity to lead the world in a progressive movement that cultivates change at the source.

The United States environmental protection agency (EPA) outlines a waste pyramid in which reduction and re-use stand as the pinnacle to effective waste management. Our Cities, Counties, and State need to rethink the way they create, handle, and discuss waste. Surfrider Foundation believes that we can become a leader in a regenerative economy in which we value reuse and recovery over the single-use items. Single-use plastics, like straws & polystyrene foam, are a fossil fuel driven, carbon emitting industry that has no place in an island economy where space is limited and our environmental health is the most important issue to our economy.

To date, the majority of dialogue regarding solutions to the plastic problem revolves around how we clean up our how we focus attention on regions of the world that have poorer waste management. These solutions may help slow the flow of waste into our oceans or clean up what is already there, but do not help solve the underlying issue. As our ocean fills with more plastic by weight than fish (Washington Post 2016) by 2050, as we have seen a 610% increase in raw plastic production since 1975 (Jambeck 2015), and as 95% of plastic packaging globally (resulting in \$80-120 billion cost) is lost after a single-first use (WEF 2016), the solutions must be more geared towards a shift away from the fossil fuel based, greenhouse gas creating industry of plastics. Alternatives derived from compostable materials are widely available now

as a stop-gap effort as we shift our economy back towards a system of reuse that is at the foundation of both Hawaiian culture and the ethic that this country began on.

The costs of plastic pollution are mounting in multiple sectors - financially, ecologically, and socially. Plastic is costing cities, counties, states, & countries millions of dollars and our global economy billions. Costs are passed to the taxpayers by burdening our stormwater management systems with the need for expensive best management practices and the costs of cleanups. Hawai'i State Department of Transportation (HDOT) has produced a trash plan that shows styrofoam and plastic bags as the top two contributors to the waste stream, while in California, the Natural Resource Defense Council (NRDC) created a plastic cleanup valuation study for 90+ counties in California. The study concluded that CA taxpayers are paying \$428 million per year to clean up plastic through storm drain management, street sweeping, and marine cleanups. San Diego County (with population of 1.3 equivalent to Hawaii) spends \$14 million alone on plastic cleanup. The United Nations Environmental Program has estimates in the billions for the global cost to cleanup plastics with \$14 billion for marine plastic alone.

A recent study published in the renowned journal of *Science* describes the mounting issues of plastics on our fragile and threatened reefs. The study describes corals as being 90% more likely to be diseased when plastic sits on the reef. The billions of pieces of plastic already in the ocean are scarring reefs and then likely infecting them with the contamination that comes from their chemical properties that allow for microbial colonization of pathogens. In other words, plastics bio-accumulate toxins in the water and thus can transfer such toxins to other organisms like coral. This is yet another toxic consequence of plastics in our oceans, of which many more are described in the points below.

The effects to marine life in our oceans are mounting. 50 to 80 percent of dead sea turtles have ingested plastic. Plastic bags, which resemble jellyfish, are the most commonly found item in sea turtles' stomachs. Worldwide, 82 of 144 examined bird species contained plastic debris in their stomachs; and in some cases, 80 percent of the population had consumed plastic. Researchers found that 66 percent of Giant Petrel shorebirds regurgitated plastic when feeding their chicks. Commercial fish, such as Opah and Bigeye Tuna, consume plastic, which could significantly reduce global populations. A University of Hawaii study reports "[i]n the two [Opah] species found in Hawaiian waters, 58 percent of the small-eye opah and 43 percent of the big-eye opah had ingested some kind of debris."

On a recent field trip visiting with the Marine Mammal Research Program, we were guided through the facilities where beached and dead Pilot Whales had been examined. The stomach contents of the three animals found on O'ahu, Lana'i, and Kaua'i revealed between 15-30 lbs of plastic in the gut. Plastic does not breakdown like organic material and as marine animals continue to ingest the plastics their stomachs eventually fill to a state in which they can no longer consume enough food to address proper nutritional maintenance. This is similar to the problem widely shared with Laysan Albatross in Papahānaumokuākea.

Ultimately, we have to reduce the problem at its source. Single-use plastics are an unneeded convenience that our society must learn to move away from. The alternatives exist and we must exercise some sort of ethic over our consumer behavior. Our kuleana is to protect our public trust resources like our shorelines for all generations into the future and currently we are not fulfilling that leadership role. Surfrider Foundation strongly urges the State Legislature

to pass SB 2285, eliminating one of the most common single-use plastics, straws, from our waste streams and environment.

Mahalo for your time and consideration,

Rafael Bergstrom
Surfrider Foundation, O'ahu Chapter Coordinator

References:

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LATE

HB-2107-HD-1

Submitted on: 2/23/2018 2:08:30 PM

Testimony for FIN on 2/23/2018 2:00:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Stuart Coleman	Surfrider Foundation	Support	No

Comments: