Sunscreen Pollution Threatens Health of Coral Reefs in Hanauma Bay, Hawai_i

HONOLULU, HAWAI'I , USA , April 18, 2018 /EINPresswire.com/ -- Hanauma Bay is a US National Clean Water Act Class AA marine embayment situated within the Hawaiian Islands Humpback Whale National Marine Sanctuary on Oahu, Hawai_i. It is also the State of Hawaii_s first Marine Life Conservation District and just celebrated the 50th Anniversary of that designation in 2017.

As part of our ongoing commitment to protecting the natural qualities of Hanauma Bay in perpetuity, non-profit Friends of Hanauma Bay partnered with Dr Craig Downs, Ph.D. from the non-profit Haereticus Environmental Laboratory in Clifford, Virginia and several concerned volunteers to measure the level of OXYBENZONE sunscreen pollution at Hanauma Bay on November 17, 2017. Volunteers included members of industries critical to Hawaii including the sunscreen Industry (Raw Elements, All Good) and the Hospitality Industry (Aqua-Aston Hotels). The Hawaii State Legislature was also represented by Senator Will Espero (D) and Representative Gene Ward (D).

This sampling event was covered by:

http://www.hawaiinewsnow.com/story/36876108/samples-taken-from-hanauma-bay-could-lead-to-ban-on-certain-sunscreens

Ten water samples were collected in Hanauma Bay that represented the coral reef closest to the beach. The highest concentration of OXYBENZONE was 27,888 nanograms/liter of seawater, and the lowest was 30 nanograms/liter of seawater. The average concentration of OXYBENZONE in Hanauma Bay was 4,661 nanograms/liter of seawater.

Over a dozen scientific papers have demonstrated that OXYBENZONE is highly toxic to marine life, especially coral. OXYBENZONE can cause corals to become more susceptible to coral bleaching, it will damage coral DNA, and it will deform and kill juvenile coral. OXYBENZONE has also been documented to adult male fish into female fish, and cause sexually immature juvenile fish to adopt characteristics common to what is seen in mature, pregnant female fish. OXYBENZONE is toxic to shrimp, sea urchins, and bivalves (e.g. scallops and mussels), and is especially toxic to marine algae. A summary of the scientific environmental literature on OXYBENZONE can found at http://www.haereticus-lab.org/oxybenzone-2/

Two separate and independent “Threat Assessments” for the concentration of OXYBENZONE found in Hanauma Bay were conducted for at least a dozen different marine/coral reef organisms. The first Threat Assessment was conducted by Dr. Silvia Diaz Cruz of the Spanish Council for Scientific Research. She is one of the foremost environmental chemists in the world regarding sunscreen pollution in aquarium and marine environments, as well as human contamination. Dr. Cheryl Woodley of the US National Oceanic & Atmospheric Administration (NOAA) conducted the other independent Threat Assessment. Both agencies_ findings indicate that the concentrations of OXYBENZONE found at Hanauma Bay pose an acute risk or threat to marine life. It can also be argued that OXYBENZONE is a significant contributor to the degradation of Hanauma Bay_s coral reefs over the past 30 years.

The “Take Home Message” of this study is that Hanauma Bay is experiencing intolerable levels of OXYBENZONE sunscreen pollution. Since Hanauma Bay is governed by the US Clean Water Act and is being managed by Hawaii_s Department of Land and Natural Resources, the City and County of Honolulu, and the US National Marine Sanctuary agency, this pollution needs to be recognized and mitigated immediately by these government entities.

One management option, which is being employed by natural resource agencies in Thailand, Indonesia, and the Philippines is to “shutdown” all visitor access and use of Hanauma Bay. This would allow the coral reef to recover by removing the the principal stressor - people and their sunscreens. This ban on visitor access is also used in the Florida Keys National Marine Sanctuary-Special Use Areas.

A second option, which is used by some UNESCO World Heritage Sites, is to ban the use and application of all sunscreen products by visitors to Hanauma Bay.

A third option, which is used by Mexico_s marine and terrestrial Eco-Parks, os to prohibit the use of sunscreen products that contain OXYBENZONE.

Industries that rely on ecological sustainability and responsibility are already acting. The Hospitality Industry has enacted programs that educate their guests about the dangers of sunscreen pollution. Aqua-Aston Hotels has taken the extraordinary measure to not just educate its guests, but to also provide free OXYBENZONE-free sunscreen to them. Last week Hawaiian Airlines announced their Coral Reef and Reef Preservation Initiative that includes in-flight education, OXYBENZONE -free sunscreen samples, and films regarding coral reef conservation and actions that their guests can do to reduce their “sunscreen footprint.” Consumers and visitors can be the decisive factor for coral reef conservation and restoration for Hanauma Bay and coral reefs all over the world.

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