Western
Pacific
Regional
Fishery
Management
Council

July 14, 2016

The Honorable Barack H. Obama
President of the United States
The White House
1600 Pennsylvania Avenue NW
Washington, DC 20500

Dear Mr. President:

We are writing to you again regarding the issue of expanding the Papahānaumokuākea Marine National Monument (PMNM). We first wrote to you on this matter on April 8, 2016, whereby we provided information responding to the request by 7 private citizens to expand the PMNM.

On June 16th, Hawaii Senator Brian Schatz wrote to you expressing his support for expanding the PMNM from 139,800 to 582,578 square miles – increasing its size by approximately 316 percent. We reviewed the information contained in Senator Schatz's letter and information presented in a pro-expansion publication[1] and have found serious inaccuracies. Contrary to the statement in Senator Schatz's letter, the best scientific information available does not support that the ecosystem around the Northwestern Hawaiian Islands (NWHI) would be strengthened from monument expansion.

The area proposed for monument expansion is comprised of pelagic waters and deep-ocean seafloor (approximately 15,000 ft deep) of the US Exclusive Economic Zone (EEZ). The pelagic waters of this area do not form a distinct ecosystem, but rather are part of a larger sub-tropical pelagic ecosystem of the North Pacific Ocean. Effective conservation of highly migratory species such as tuna, billfish, sharks, seabirds, sea turtles that occur in pelagic ecosystem requires international measures and strict enforcement of foreign fishing vessels. Enclosed is our analysis that refutes arguments for expanding the monument contained in pro-expansion publication referenced above. Our analysis, which was reviewed by the National Marine Fisheries Service Pacific Islands Fisheries Science Center, provides accurate information with regards to marine resources and existing protections found in the NWHI.

Expanding the PMNM to the full extent of the EEZ would be an unprecedented action with negligible conservation gains – one that would close about two thirds of the EEZ around Hawaii to domestic fishing. The establishment of Marine National Monuments under the Antiquities Act has resulted in a disproportionate conservation burden that the US Pacific Islands region has had to shoulder. Marine National Monuments[2] have only been established in the US Pacific Islands and together represent about 30% of the US EEZ in our region. The establishment of these marine monuments has reduced accessible fishing grounds for sustainably managed US fisheries operating in US waters. Expanding the PMNM would compound negative cumulative impacts experienced by

[1] Pu'uhonua: A Place Of Sanctuary (The Cultural and Biological Significance of the proposed expansion for the Papahānaumokuākea Marine National Monument)
[2] Papahānaumokuākea MNM, Pacific Remote Islands MNM, Rose Atoll MNM, Mariana Trench MNM

the Hawaii longline fishery, which is highly monitored and primarily supplies Hawaii's domestic seafood market. Cumulative impacts include competition from less restricted foreign imports and catch limits and other restrictions imposed by international fishery management organizations such as the Western and Central Pacific Fisheries Commission and the Inter-American Tropical Tuna Commission.

Unilateral Presidential action to expand the PMNM under the Antiquities Act is contrary to the Magnuson-Stevens Fisheries Conservation and Management Act, which over the last 40 years has resulted in sustainable US fisheries and ecosystem protection. Expanding the PMNM under Antiquities Act also undermines the principles and public participation process established under the National Environmental Policy Act.

Hawaii is an ocean state; its commercial fisheries are its largest source of primary food production and make it the fifth most important commercial fishing port in the United States. Per-capita consumption of fish in Hawaii is twice the national average. Further, non-commercial fishing in Hawaii includes mass participation; the state is number one in terms of pounds of recreational fish landed per resident.

The maritime and fishing culture of Hawaii and the Pacific Islanders has a depth and significance which continues to resonate in modern times. Fishing, eating and sharing fish, and passing on the knowledge of fish and fishing locations, all play a pivotal role in preserving and perpetuating the culture and traditions of the people of the US Pacific Islands.

Finally, expanding the PMNM will further erode Native Hawaiian rights to the area and make it more difficult for Native Hawaiians to access these waters. Prior to the establishment of the PMNM, Native Hawaiians could readily access their traditional fishing grounds in the NWHI. There is no evidence that this access threatened any fish stocks or resources in the area. After President George W. Bush established the PMNM, the federal government instituted a Native Hawaiian Practices Permit, which if granted, comes with a suite of associated permit conditions that restrict traditional activities. For example, resources harvested in the NWHI under the terms of the Native Hawaiian Practices Permit must be consumed in the Monument. This eliminates Native Hawaiian customary sharing, customary exchange and other cultural use of fish caught in the Northwestern Hawaiian Islands.

Expanding the Papahānaumokuākea Marine National Monument would produce negligible conservation benefits while unnecessarily impact Hawaii pelagic fisheries and would result in social and cultural consequences. Such an action, especially as it would be taken under the Antiquities Act, would be a monumental step backward in the United States' progress in managing its natural resources using the best scientific information available and providing for meaningful opportunities for public participation.

Sincerely,

Kitty M. Simonds
Executive Director

Edwin Ebsui Jr.
Council Chair

Enclosures: 1) WPRFMC Science Rebuttal Analysis
2) WPRFMC Letter to Senator Schatz

WESTERN PACIFIC REGIONAL FISHERY MANAGEMENT COUNCIL

Analysis of the "Pu'uhonua a Place of Sanctuary: The Cultural and Biological Significance of the Proposed Expansion for the Papahānaumokuākea Marine National Monument"

July 14, 2016

This document provides the Western Pacific Regional Fishery Management Council's analysis of the document "Pu'uhonua a Place of Sanctuary: The cultural and biological significance of the proposed expansion for the Papahānaumokuākea Marine National Monument" (hereafter referred to as the "Pu'uhonua document"). Specifically, we focus on the scientific significance arguments posed in the Pu'uhonua document.

Arguments made in the Pu'uhonua document	WPRFMC Analysis
Key ecosystems that would benefit from expansion include coral reefs, seamounts, pelagic areas, guyots, and abyssal seabed communities.	**Existing fishing activity in the potential expansion area do not pose a threat to coral reefs, seamounts, pelagic areas, guyots and abyssal seabed communities. Fishing activity occurs in the top surface layer of the water column, compared to the seabed of the potential expansion area lying three miles under water, and destructive fishing practices have been prohibited since 1986. Additional details on these points are provided below.**
• **Coral Reefs:** "The NWHI: in deep sea habitat in the NWHI of the Papahānaumokuākea Marine National Monument would better ensure the resiliency for these reefs, reducing one stressor -- fishing -- facing reefs in this multi-stressor situation"	There is no fishery targeting corals in the Northwestern Hawaiian Islands (NWHI). The only fishery currently operating in the US Exclusive Economic Zone (EEZ) around the NWHI is the Hawaii longline fishery, which does not pose a threat to reefs or deep-sea habitat. The deepest hook set is about 400 meters which is much shallower than 99% of the benthic habitat in the potential expansion area of the NWHI. Any claims that fishing represents a threat to hermatypic or deep sea corals are entirely spurious. Deep water trawling has been prohibited in the US EEZ around Hawaii, Guam, Commonwealth of the Northern Mariana Islands (CNMI), American Samoa, and the Pacific Remote Island Areas (PRIA) since 1986 through action of the Western Pacific Regional Fishery Management Council.

Arguments made in the Pu'uhonua document	WPRFMC Analysis
• **Seamounts:** "Since there are high levels of biodiversity and endemism on seamounts that have been studied to date, it is assumed that unexplored seamounts contain similar amounts of biodiversity and endemism and likely hold great opportunity for future scientific discoveries, including new species"	The average depth in the proposed monument expansion is 4,882 m. While seamounts comprise the shallower area in the potential expansion area, biological productivity is much higher on seamounts that are 1,000 m or shallower. These constitute only 0.1% of the area. Further, the Pu'uhonua document appears to apply information gleaned from studies of mesophotic coral ecosystems (MCEs) and generalize the findings to seamounts that occur at depths significantly greater than MCEs are found. Finally, while it may be true that there is potential for scientific discoveries at unexplored seamounts, these explorations can occur now, and in fact with less bureaucracy than if the monument was expanded. Bottom line: monument expansion is not necessary to study biodiversity and endemism on seamounts, and in fact may hinder it.
• **Seamounts:** "The proposed expansion of the Monument would protect approximately 110 additional seamounts from the irreversible effects of deep water trawling and the immeasureable damage of deep water mining."	Deep water trawling (i.e., bottom trawling), bottom-set gill nets, tangle nets and other destructive fishing gear has been prohibited in the US EEZ around Hawaii, Guam, CNMI, American Samoa, and the Pacific Remote Island Areas since 1986 through action of the Western Pacific Regional Fishery Management Council under the authority of the Magnuson-Stevens Fishery Conservation and Management Act. There is no other fishing activity posing a threat to seamounts in the potential expansion area. Deep water mining leases and associated permits must undergo a rigorous federal environmental review process under existing requirements. Threats to a resource do not determine its cultural or scientific interest, or demonstrate that the current boundaries are insufficient for the management of the resource. A monument expansion to protect these resources would be an admission that the current environmental review process, as well as a series of executive orders, is insufficient. If this is the case, monument designations and expansions would be a bandaid, not a solution.

Arguments made in the Pu'uhonua document	WPRFMC Analysis
• "Deep coral reefs in PMNM may contain the highest percentage of fish species found nowhere else on Earth, according to a study by NOAA scientists published in the Bulletin of Marine Science"	The "deep coral reefs" described here are more widely known as mesophotic coral ecosystems (MCEs). MCEs are considered deeper extensions of coral reef ecosystems found at 30 to 150m depths. Whereas it is true that Kane and colleagues showed that there is high endemism of MCE associated fishes, the claim that this area is the highest in the world is unsubstantiated[1]. In fact, the authors of the study highlighted that "the study only surveyed slopes, ledges, or other distinguishing reef fish habitat features at depths between 30 and 90 m, and therefore the endemism estimates are not comparable to other fish habitat types at the same depths". This means that their estimates only apply to a similar habitat type at that depth range. Reefs within the Papahānaumokuākea Marine National Monument (PMNM) do not demonstrate the scientific interest of the expansion area.
• "Several of these species (oceanic white tip shark, giant trevally, bluefin trevally, green jobfish, and endemic Hawaiian grouper) and others spend parts of their life histories both inside and outside the borders of the existing monument. Expanding the area of protection will increase survivability of these species."	The expansion is unlikely to increase survivability of the species mentioned in this statement. The majority of reef-associated species have a pelagic larval stage which is highly dependent on the ocean circulation. A hook-and-line fishery like the Hawaii longline fishery will have no direct impact to tiny larvae. Moreover, these species (maybe less so for the oceanic white tip) are already protected by the current boundary. Numerous papers published the home range of these different species: o Giant trevally = 29km (18mi)[2] o Bluefin trevally = 10.2km (6.3mi)[3] o Green jobfish = 12-19km (7.4-11.8mi)[4]; 3-30km (1.8-18mi)[5] o Hawaiian grouper = purely demersal species with very limited home and depth range[6]
Populations of seabirds, turtles, whales, predators such as sharks and tuna, and bottom life associated with seamounts and hydrothermal vents would benefit from the expansion. The existing borders do not allow for the proper care and management for populations of migratory birds, fish, mammals, and sea turtles, and newly discovered and little understood deep sea ecosystems.	**The best available science does not indicate expanding the PMNM will benefit species such as seabirds, turtles, whales, sharks and tuna. Existing management mechanisms have continued to show success in minimizing ecosystem impacts from fisheries, and the Hawaii longline fishery serves as the gold standard in the international arena. Additional details on these points are provided below.**

Arguments made in the Pu'uhonua document	WPRFMC Analysis
• **Seabirds:** "Eleven of the species found in the NWHI are considered imperiled or of high conservation concern, and in particular, six species – the Laysan (near-threatened), black-footed (near-threatened), and short-tailed (endangered) albatrosses, Christmas shearwater, Tristram's storm-petrel (near-threatened) and blue noddy – are of the highest concern for the Pacific Island region as a whole."	The Pu'uhonua document cites the IUCN Red List status, which uses different criteria than the U.S. Endangered Species Act (ESA) listing. Of the species highlighted in this statement, only the short-tailed albatross is listed under the ESA, and this species' primary breeding habitat is in Japan. Short-tailed albatross, Christmas shearwater, Tristram's storm-petrel and blue noddy are not at risk from bycatch in the Hawaii longline fishery. The Laysan and black-footed albatrosses are not listed under the ESA, their populations are stable or increasing, and the Hawaii longline fishery pioneered seabird mitigation measures to reduce interactions with these two species in the early 2000s.
• **Seabirds:** "…the most significant cause of population decline for albatross can be attributed to longline fisheries."	The Hawaii longline fishery pioneered seabird mitigation measures in 2002 to reduce interactions with Laysan and black-footed albatrosses. As a result of these measures, sea bird interactions were reduced by 70-90 percent[7,8]). These two species of albatrosses have stable or increasing populations[9].
• **Seabird:** "Some studies have shown that booby species range throughout most – though not all – of the NWHI. Furthermore, smaller seabird species have been shown to forage further from breeding colonies than larger birds (likely as a result of interspecies competition). Thus, many species are likely to be foraging well outside the current boundaries of the monument, including white-tailed tropicbirds, red-tailed tropic birds, masked boobies, great frigatebirds, sooty terns, and wedge-tailed shearwaters."	The seabirds mentioned in this statement have limited to no interactions with the Hawaii longline fishery, and thus pushing the longline fishery outside of the US EEZ around the NWHI will not provide conservation benefits.

Arguments made in the Pu'uhonua document	WPRFMC Analysis
• **Turtles:** "More than 90% of green sea turtles (*Chelonia mydas*) or honu in Hawaiian nest in the NWHI. Individuals tagged at French Frigate Shoals have been identified near Kauai, Oahu, and Maui to the southwest and near Lisianski Island, and Pearl and Hermes Reef to the northwest. This is a flagship species for Hawaii's tourism industry, with numerous businesses catering to tourists who wish to observe these endangered animals. They are also an iconic Hawaiian species of great cultural importance."	Green sea turtles are rarely caught in the Hawaii longline fishery. There have been no green turtle interactions observed in the Hawaii longline fishery operating within the US EEZ around the NWHI since 2002. The Hawaii green sea turtle population has made a remarkable rebound since commercial harvest was prohibited through state and federal regulations in the 1970s.
• **Turtles:** "Two other species of sea turtle, the loggerhead (*Caretta caretta*) and leatherback (*Dermochelys coriacea*), have been identified as being at particular risk of population decline as a result of incidental take by longline pelagic fisheries. In fact, fisheries are considered to be one of the main causes of anthropogenic mortality for sea turtles. Nesting populations of Pacific leatherbacks have experienced a 95% decline in just two decades. Loggerhead turtles showed an 80% population decline in the same period."	The National Marine Fisheries Service has concluded that the Hawaii longline fishery is not impacting the recovery of loggerhead and leatherback populations. The source document pointing to loggerhead turtle decline is dated 2004. The North Pacific loggerhead nesting population has increased in the decade following the 2004 publication. Furthermore, loggerhead turtles rarely occur in the US EEZ around the NWHI and there have been no observed deaths of loggerhead turtles from the Hawaii longline fishery in the US EEZ around the NWHI. Similarly, there have been no observed deaths of leatherback turtles from the Hawaii longline fishery in the US EEZ around the NWHI. Leatherback turtles in the Western Pacific are threatened by land-based threats at their nesting beaches primarily located in Indonesia, Papua New Guinea and the Solomon Islands, such as egg harvest, predation by dogs and pigs, and beach erosion from frequent storms. Recognizing these threats, the Western Pacific Regional Fishery Management Council supported nesting beach conservation projects from 2002-2014 to aid in the recovery of Pacific leatherback turtle populations.

Arguments made in the Pu'uhonua document	WPRFMC Analysis
• **Turtles:** "Because of high bycatch rates of sea turtles, particularly loggerheads, the Hawaiian swordfish fishery was closed by court order from 2000-2004. The Hawaiian tuna fishery was seasonally restricted by the same order due to high bycatch rates of olive ridley sea turtles. Both fisheries also caught substantial numbers of leatherback sea turtles."	Sea turtle bycatch mitigation measures implemented in the Hawaii swordfish longline fishery in 2004 successfully reduced interactions by 80-90 percent[10]. The court-ordered closure of the Hawaii swordfish longline fishery that lasted through 2004 resulted in more impacts to loggerhead and leatherback turtles, as domestic swordfish were replaced by imports from foreign fisheries that do not have the same standard of management as the U.S. It is estimated that the closure of the Hawaii's fishery contributed to an additional 2,800 sea turtle interactions during the four-year period[11].
• **Whales:** "24 species of marine mammal have been identified in Hawaiian waters, 22 of which occur in the proposed expansion."	The simple presence of marine mammals does not provide justification for a monument designation. The Pu'uhonua document provides no further discussion on threats or justification on how a monument expansion would provide additional conservation benefits to these species. All marine mammals are protected under the Marine Mammal Protection Act (MMPA). The Hawaii longline fishery has an extremely small number of interactions with marine mammals. Efforts to address false killer whale interactions in the fishery are underway through the False Killer Whale Take Reduction Team.
• **Sharks:** "Between 5,000 – 28,000 sharks are caught by longline vessels each year in the Northwest Hawaiian Islands, and nearly all are dumped overboard."	Capture and release is not synonymous with mortality. Sharks are not dumped overboard; they are cut loose from the branchline and rarely retained. At-sea observer data indicate 95% are alive upon release and electronic tags indicate low post-release mortality. Eighty-five percent of these sharks are composed of blue sharks. The North Pacific blue shark is not overfished and overfishing is not occurring, according to the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC)[12].
• **Sharks:** "In the Pacific, oceanic whitetip sharks (*Carcharhinus longimanus*) and silky sharks (*Carcharhinus falciformis*), highly migratory species that were once categorized as two of the most abundant species of large marine animals, have declined significantly."	Large scale commercial fishing has occurred in the Pacific Ocean for >50 years. The oceanic white-tip is probably the only shark documented scientifically to have declined in the Pacific Ocean. If they cannot withstand fishing pressure, how are they still caught in the NWHI at the same rate for the last 10 years? Moreover, core silky shark habitat is 10° S to 10° N, and the NWHI begins at 19° N. Oceanic white-tips have a larger habitat, and it is misleading to indicate that NWHI pertains to core habitat. Further, oceanic white tip and silky sharks are rarely caught by the Hawaii longline fishery and are released in accordance with Western and Central Pacific Fisheries Commission (WCPFC) and Inter-American Tropical Tuna Commission (IATTC) conservation and management measures.

Arguments made in the Pu'uhonua document	WPRFMC Analysis
• **Sharks:** "The same data set also shows that the catch per unit effort of sharks in NWHI has dropped considerably from a high of 13.02 sharks/million hooks in 1992 to 2.29 sharks/million hooks in 2014. This suggests an alarming decline in shark populations, and is of concern not only because of the declining numbers, but also because the limited fishery is targeting tuna, not sharks."	Reductions in shark catch per unit effort (CPUE) in the Hawaii longline fishery are not a result of stock declines, but rather due to two major developments that affected shark catch rates in the fishery. The first was the prohibition in 2000 of shark finning under most circumstances, and the second was the temporary closure of the shallow-set component of the longline fishery in 2001-2004. Walsh and colleagues observed that catch rates for the blue shark, oceanic whitetip shark, bigeye thresher, and crocodile shark were significantly lower in 2004–2006 than in 1995–2000[13]. For the blue shark in particular, the combination of reduced catch rates, the finning ban, and an apparent capacity to resist the stress of capture on longline gear resulted in low (4%–5.7%) minimum mortality estimates. These results show that the Hawaii-based pelagic longline fishery has made substantial progress in reducing shark mortality and minimizing impacts to shark species that are incidentally caught in the fishery.
• **Sharks:** "The value of large protected areas to sharks has been demonstrated, and expanded protection in this area will be of benefit to multiple threatened shark species."	The Pu'uhonua document provides no scientific evidence to support this statement. While protected areas may be beneficial for coastal sharks with limited range, the value of large protected areas has not been demonstrated for highly migratory pelagic sharks.
• **Tunas:** "Commercially important tuna species are threatened with extinction and fisheries managers are not following scientific advice to improve stocks."	Some commercial tuna stocks have been depleted but none in the Pacific face extinction. Both yellowfin and bigeye tuna stocks are considered healthy where they reside in a larger sub-region that includes the Northwestern Hawaiian Islands. For example, bigeye depletion is only 20% of unfished biomass in the Hawaii region, whereas in the equatorial Pacific, bigeye biomass depletion is around 80%[14]. The same holds true for yellowfin[15].
• **Tunas:** "The benefits of marine protected areas to commercial fish species are well studied. A global analysis of marine reserves found that on average, marine reserves result in higher fish biomass, greater numbers of fish, more species in an ecosystem, and larger fish. Expanding Papahānaumokuākea will create a large sanctuary where the ecosystem can thrive and where these economically important species can be safe from overfishing with the opportunity to mature and reproduce."	There is no evidence that open ocean marine reserves have any effect on reducing tuna fishing mortality. In 2010 the WCPFC closed two large high seas pockets in the Western Pacific (High Seas Pockets 1 and 2) to purse seine fishing as a tuna conservation measure. However, there was no decline in the fishing mortality because tuna move and they moved into adjacent zones of heavy purse seine fishing and thus were exposed to the same levels of fishing mortality[16].

Arguments made in the Pu'uhonua document	WPRFMC Analysis
• **Tuna:** "While much of the research in this area to date has focused on coastal and bottom habitats, the principle that fish populations rebound when fishing pressure is removed appears to hold true for offshore species, too. For example, Filipino fishermen caught skipjack, yellowfin, and bigeye tuna inside High Seas Pocket 1, an area of high seas between the Philippines and Guam closed to most fishing countries. These fish were on average larger than fish of the same species caught inside the Philippines EEZ."	High Seas Pocket 1 (HSP 1) is open to all members in the WCPFC with fishing rights, especially longline vessels which heavily fish in High Seas Pocket 1. Some purse seine vessels do not fish in HSP 1 because of agreements with the Parties to the Nauru Agreement (PNA), not because HSP 1 is closed. Comparing tunas caught in High Seas Pocket 1 by the Philippine purse seine fleet with catches by the same fleet in the Philippine EEZ is entirely spurious. The fish are larger because the Philippines adopted larger mesh sizes for purse seiners and ringnet vessels operating in High Seas Pocket 1 than those operating within the EEZ. Further, the Philippines is a well-known spawning ground for tropical tunas where there is a profusion of small fish. Indeed special tags had to be developed to tag the very small tunas encountered in the Philippines by the Secretariat of the Pacific Community (SPC) tuna tagging program.
• **Tuna:** "These tuna would grow large and produce exponentially more eggs than smaller, unprotected individuals swimming outside the area of protection. Spillover effects of the fish that do swim outside of the area of protection would benefit fishermen."	There is no demonstrated spillover effect for tunas from large high seas closures, some of which have bene in place for several years (e.g., the US EEZs around the PRIAs and the existing monument around the NWHI). Moreover, while bigger fish may produce more eggs, most of the reproductive potential of a stock is in the more abundant smaller mature females.
Marine protected areas are most effective when they are large, remote, strongly protected, protected for a long time, and enforced. Expanding the monument would make it even more effective at conserving wildlife, improving ecosystem health, and increasing climate change resiliency.	**Although marine protected areas (MPAs) are widely used as a management tool for small-scale insular areas, applicability of this approach to a large open ocean habitat has yet to be demonstrated. Scale, remoteness, and consistency of protection are all factors that affect enforcement. It is presumptuous to claim that by expanding the current boundaries, management of the area (including all the components required for effective area-based management) will improve. Additional details on these points are provided below.**
• "Expanding the monument to include the entire U.S. EEZ surrounding the Northwestern Hawaiian Islands would achieve or exceed this 30% goal for the United States, and increase the global strongly protected area up to about 2.3%."	The U.S. Pacific Islands region including Hawaii currently has the highest percentage of EEZ designated as no-take MPA at 28%, whereas all other U.S. regions have less than 1% of their EEZ areas designated as MPAs. Expansion of the monument boundary around the NWHI to the full 200nm extent would result in nearly 70% of the EEZ around Hawaii in no-take MPAs, placing a disproportionate burden on Hawaii.

Arguments made in the Pu'uhonua document	WPRFMC Analysis
• "The expansion will vastly increase the oceanographic habitats and populations of seabirds, fish, marine mammals, and sea turtles that are protected from commercial fishing, as well as decrease the distance from other protected areas. Enhancing the survival of migratory fish increases the marine resource capital from which fishermen can draw the interest in a sustainable manner."	It is premature to assume that a large ocean MPA will be effective in conserving highly migratory species. One of the stocks mentioned that would benefit from the expansion is the tuna which is a pan-pacific stock. MPA implementation is not likely to improve overall stock abundance or increase harvest unless catch is simultaneously reduced in the areas outside the MPA[17]. There is an implicit assumption that the open ocean environment has a static nature, which is inaccurate. While traditional MPA designs are effective in static habitats, many important pelagic habitats are neither fixed nor predictable. Thus, pelagic protected areas will require dynamic boundaries and extensive buffers. In addition, the protection of far-ranging pelagic vertebrates will require dynamic MPAs defined by the extent and location of large-scale oceanographic features[18]. The use of MPAs for highly migratory species in an open ocean context through the expansion has 4 out of 5 shortcomings identified by Agardy and colleagues: inappropriately planned or managed MPAs; MPAs that fail due to the degradation of the unprotected surrounding ecosystems; MPAs that do more harm than good due to displacement and unintended consequences of management; and MPAs that create a dangerous illusion of protection when in fact no protection is occurring[19].
• "A key obstacle to establishing MPAs is the fact that in most cases the fisheries costs of MPA establishment are realized in the short term while the fisheries benefits come later."	Few if any studies have shown any improvement to catch per unit effort (CPUE) resulting from large ocean MPA designation. Experiences from small MPAs designed to protect species with high site fidelity cannot be translated to open ocean MPAs.
• **Climate change:** "Immediately taking steps to decrease the concentration of atmospheric carbon dioxide is practically the only way to slow the effects of ocean acidification, however, protecting large expanses of reefs from fishing and other extraction activities would also help maintain the biodiversity needed to buffer or ameliorate the effects of ocean acidification.	The implementation of an expanded NWHI monument will have no impact on climate change and biodiversity. The Hawaii longline fishery fishes in the epi-pelagic and meso-pelagic layer of the water column catching a range of pelagic predatory fish. Removal of this fishery will not slow the effects of ocean acidification, protect large expanses of reefs nor maintain the biodiversity needed to buffer or ameliorate the effects of ocean acidification.
• **Climate change:** "Protected areas act as an ocean refuge for fish, including those displaced by climate change."	The 50- to 200-nm area of the potential expansion is comprised of highly migratory pelagic species and deep-water benthic species. This statement is illogical in the context of highly migratory pelagic species inhabiting the potential expansion area. It suggests that a stationary area will protect fish that move.

Arguments made in the Pu'uhonua document	WPRFMC Analysis
• **Climate change:** "As ocean temperatures rise, migratory fish populations will move toward cooler waters affecting fisheries and food security."	This statement provides support for keeping the entire 50- to 200-nm EEZ open to fishing for the purpose of minimizing impacts to fisheries and food security. If EEZ waters around the NWHI are closed, the fishermen will not be able to follow the fish northward in the EEZ (which stretches to the NW).
• **Climate change:** "The most up-to-date science shows that marine reserves are an essential means to bolster climate resilience; strongly protected areas that safeguard species and ecosystem functions have proven to be six times more resilient to the impacts of climate change than unprotected areas."	The studies cited in the Pu'uhonua document in support of this and similar statements focus on nearshore coral reef and other coastal ecosystems, which are already protected within the existing 50 nm monument boundary. These studies focusing on coral reefs cannot be generalized to pelagic environments in the 50-200 nm potential expansion area. Further, the Pu'uhonua document provides no evidence that large MPAs provide climate resilience in pelagic environments. Recent mass bleaching events in MPAs such as the Great Barrier Reef suggest that MPAs do not sufficiently protect marine environments from climate change impacts.
The area being proposed for expansion is not a major fishing ground according to publicly available data from NOAA. In fact, log books show that the effort in the region has been dramatically decreasing over the last five years.	**A fishing ground that provides up to 10% of catch is a major fishing ground. Longline fisheries follow the fish and in some years the best fishing has been in the NWHI. Additional details on these points are provided below.**
• "The area in the Northwestern Hawaiian Islands under consideration for expansion is not a major fishing ground according to publicly available data from NOAA."	The fishery is a dynamic operation ranging over a large area of ocean where conditions shift in response to oceanic conditions and fish behavior. For example, there is a winter feeding migration southwards by bigeye which would not be fully utilized if the waters of the NWHI are closed. This winter bigeye run is especially important to the Hawaii longline fleet as it occurs during the holiday season from Thanksgiving to the Chinese New Year in February, when demand for ahi is high. Vessels can make shorter trips, fishing the US EEZ around the MHI and NWHI resulting in shorter trips, lower expenses and higher quality fish, leading to improved profitability.
• "The good news in the situation of the expansion of Papahānaumokuākea is that it is unlikely that the Hawaiian longline fishery would be significantly affected by the larger marine protected area. The most likely response to the expansion of the PMNM is for fishing effort to shift beyond the newly closed area."	The claim that effort can shift out of the NWHI is indicative that the expanded closure will have no impact on highly mobile tuna stocks, which will move beyond the closure boundary to be caught by Hawaii and Asian longline fleets. Indeed, the Hawaii fleet may have to work harder to compete with the Asian fleets, whereas it is protected by the US EEZ around the NWHI and MHI. Moreover, major closures on the high seas have already been tested by the WCPFC and did not result in reductions to bigeye fishing mortality.

Arguments made in the Pu'uhonua document	WPRFMC Analysis
Hawaii longline catch quotas are set by the negotiations that take place at the Western Central Pacific Fisheries Commission, not the placement of marine protected areas. An expanded monument simply displaces fishing effort and will not reduce the overall catch for the Hawaii longline fishery. In fact, the expansion of the monument would therefore have no or only minimal negative impacts on the Hawaiian and US economy.	**There is no analysis or data to support the statement that the Hawaii longline fishery will not be impacted by Monument expansion. Whether or not the Hawaii longline quotas are set by the WCPFC has no bearing on closing access to fish in the NWHI. Further, the fleet is a mix of small (50ft) to large (90ft) vessels. The larger vessels can range further offshore, while smaller vessels need access to fishing grounds nearer to Hawaii. Closing the NWHI will thus remove access for the smaller vessels in the fleet and restrict them to the US EEZ around the Main Hawaiian Islands or to fish offshore on the high seas with the safety at sea issues that this entails. The Pu'uhonua document also contradicts itself by stating that populations of predators such as tunas would benefit from expansion. Then it notes that expanding the monument will displace effort and will not reduce the overall catch of the Hawaii longline fishery which would suggest no reduction in fishing mortality.**

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Western
Pacific
Regional
Fishery
Management
Council

June 20, 2016

Honorable Brian Schatz
United States Senator
Hart Building
Suite SH-722
Washington
DC 20510-1105

Dear Senator Schatz:

We are writing in response to your letters of March 23rd and June 16th regarding the proposed expansion of the Papahānaumokuākea Marine National Monument (Monument) in the Northwestern Hawaiian Islands (NWHI).

Despite your assertion that you would not support any expansion that does not adequately consider the interests and importance of Hawaii's longline fishery, which as you note in your letter has fished responsibly in the NWHI for decades, the boundaries you propose for monument expansion eliminate the fishery from a substantial portion of its traditional range.

We are dismayed that you did not consult with the Western Pacific Regional Fishery Management Council (Council) prior to distribution of your letters which have proliferated unsubstantiated statements through the media. For example, insinuating that a "vigorous carbon sink" will be created by drawing a boundary on the ocean is false, as such an action would not make that part of the ocean absorb any more carbon than at present. The Council has federal jurisdiction over the waters within the Northwestern Hawaiian Islands beyond the current monument boundaries under the Magnuson-Stevens Fishery Conservation and Management Act of 1976. We, therefore, request a meeting with you and your staff as soon as possible.

As you yourself note, the Hawaii longline fishery uses "responsible and sustainable practices and has resulted in Honolulu's recognition as one of the nation's ten most productive fishing ports". This fishery is not simply about economics, it is also about the sustainability of the State of Hawaii through local food security (see the State of Hawaii 2050 Sustainability Plan, the Governor's Aloha + Challenge, and the Hōkūle'a Worldwide Voyage Promise to Paeaina).

Most of the seabed in the area from 50 to 200 nm offshore lies beneath three miles of ocean water at a pressure of 440 atmospheres and the deepest that fishing occurs is 400 meters (less than one-quarter of a mile). Why does it need "protecting" in yet another paper park and further layers of federal bureaucracy?

The potential co-trusteeship for Office of Hawaiian Affairs of the current monument is possible without monument expansion. The Native Hawaiians lost free access to this area with the creation of the monument. Permits are required for all activities that are allowed, including the voyages of the canoes of the Polynesian Voyaging Society. The Native Hawaiian Practice Permit is available to everybody, not just Native Hawaiians.

If the Hawaii longline vessels are pushed out of the NWHI, they would have to compete on the high seas with foreign longliners, which operate just outside of the US EEZ around NWHI targeting the same stocks. Furthermore, all foreign vessels including fishing vessels can and do regularly transit the EEZ around the NWHI unhindered, while the Hawaii longline fleet must notify all movements of entry and exit from this zone.

It is essential that you meet with us so that the discussion on your proposal is grounded in truth and science. Please contact Kitty Simonds to arrange a meeting at your earliest convenience.

Sincerely

Kitty M. Simonds
Executive Director

Edwin Ebisui Jr.
Council Chair

Council Executive Committee

Frederick M. Rice (Vice Chair Hawaii) William Sword (Vice Chair American Samoa), John Gourley (Vice Chair CNMI), Michael Duenas (Vice Chair Guam)

cc: The President of the United States
Council on Environmental Quality

Supporting Information. For attachment to letter to Sen. Brian Schatz June 20, 2016

- The best available science does not indicate expanding the PMNM will strengthen an ecosystem that sustains tuna, swordfish, sharks, seabirds, sea turtles and Hawaiian monk seals. Tunas, swordfish, pelagic sharks, seabirds, some species of turtles are highly migratory species which forage and spawn based upon a shifting system of gyres, currents, winds and temperature gradients which the proposed monument expansion does not address.

- Seabirds are associated with terrestrial habitats for breeding and nesting. The emergent lands in the NWHI are already protected under the current monument.

- How does closing waters make fishing more productive? Scientific research has shown that the movement of fish and other marine life in the Hawaiian Archipelago flows from the Main Hawaiian Islands to the NWHI and not vice versa. According to scientific research there is no evidence of spillover of larval or adult of species from the monument of bottomfish, coral reef fish, and pelagic fish.

- Expanding the monument will reduce opportunities to understand this ecosystem and would eliminate logbook and observer data collection from the Hawaii longline fishery. Data collected from the fishery is the primary means by which we understand spatial distribution, species composition, stock productivity, and trophic level dynamics of the pelagic ecosystem.

- The only major fishing activity in the NWHI is the longline fishery. The other existing activities—military activities, research and maritime transport—will not be impacted. Eighty percent of the fish caught in Hawaii stays in Hawaii, and fish is the state's number 1 primary production/ food production.

- How will removing longliners improve scientific research? What part of longline fishing is impeding any research efforts within the proposed area of expansion?

- No studies have shown that coral larvae stay within the current monument, the proposed expanded monument or even further. It depends on species. Some are brooders and some are broadcast spawners. Larvae from broadcast spawners are drawn to the open ocean where mortality is high. Once the planular larvae use up their energy reserve, the larva is forced to settle. Without a suitable substrate to settle on the larva will die.

- The Coral Triangle is the center for coral diversity, not the Northwestern Hawaiian Islands. Hawaii is not within the top ten hotpots for biodiversity protection. Further, there are no endangered species of coral in Hawaii.

- How does designating greater expansion of the NWHI create a "vigorous carbon sink"? Carbon sinks act on a basin scale without regard for political boundaries. Expansion will

also not protect against climate change. Studies show that terrestrial systems are the major sink for CO_2 generated by fossil fuels as compared to ocean systems.

- Pushing out the longliners with likely cause these vessels to fish further offshore, and increasing their carbon footprint.

- Reefs in large marine protected areas (MPAs) such as in Papua New Guinea, the Great Barrier Reef, and the Pacific Remote Island Areas were affected from recent coral bleaching, which is a function of temperature. Other protected areas have not prevented coral bleaching from occurring, such as Hanauma Bay and Molokini. MPAs of any size do not prevent coral bleaching.

- The expansion of the monument will add no protection for sunken warships, which have sovereign protection under the Law of the Sea. The Japanese carriers and battleship sunk at the Battle of Midway remain the property and concern of the Government of Japan.

- The Austronesian Expansion into Southeast Asia and Oceania jumped off from Taiwan about 40,000 to 60,000 years ago and progressed through the islands of Indonesia and the major islands of New Guinea and the Solomon Islands, before taking the final leap into Oceania where the descendants of these people became what are now the modern Polynesians.

- According to the Pele legend, the NWHI is an ancient pathway for native Hawaiians. Even until modern times families with generational ties to Nihoa, Mokumanamana and Mokupapapa made seasonal trips to the NWHI. Malama Honua, which began with a navigation of the NWHI, is a modern voyage. The creation of the first monument eroded the native indigenous right to access this area by requiring application for a permit and limiting native practices while in the monument area. In fact, in the interim, that generational practice may have ended because of the barrier created by the original Papahanaumokuakea boundaries and regulations. The only barrier to native access to this area is created by the monument. How is traditional indigenous practice preserved by requiring the acquisition of a permit to access traditional areas?

- Regarding enforcement, the implementation of other monuments in the Western Pacific (NWHI, PRIAs, Mariana Trench) included language that increased enforcement would occur, but this has not happened.

- Based upon the track record of other US Pacific monuments, federal and private funding resources have not been realized and management plans have not been completed. The State of Hawaii has not received funding for their role as a co-manager. The notion that private funding will make up for limited federal funding lacks precedent and would likely be unsustainable.

- Removing the Hawaii fishing vessels from the US EEZ around the NWHI would reduce the 'eyes on the water' that provide additional monitoring of illegal foreign fishing.

- Monument expansion would displace Hawaii longline vessels to the high seas where they would face competition from foreign vessels and increased operating costs to access fishing grounds farther from Hawaii.

- The longer trips could reduce seafood quality for Hawaii consumers. Monument expansion would displace small longline fishing vessels and concentrate them into the EEZ around the main Hawaiian Islands.

- The Hawaii longline fishery does not interact with monk seals. The original monument boundary was based on a Council implemented longline protected species zone. This closure was requested by longline fishermen who recognized their vulnerability to longline interactions with monk seals

- Further, there may be increased importation of fish from countries that have Illegal Unreported and Unregulated (IUU) fishing such as China, and countries such as Thailand and Indonesia which regularly use slaves in fishing operations. This also includes the adulteration of tuna with Carbon monoxide to maintain the appearance of freshness.

- Fishing is intrinsic to all of Hawaii's cultures.