NORTHWESTERN HAWAIIAN ISLANDS
CORAL REEF ECOSYSTEM RESERVE ADVISORY COUNCIL

July 10, 2017

The Honorable Secretary Ryan Zinke
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240

RE: Monument Review, MS-1530

Dear Secretary Zinke,

The Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve Advisory Council appreciates the opportunity to provide comment to Monument Review, MS-1530. The Council is composed of engaged stakeholders who provide advice and recommendations to the Office of National Marine Sanctuaries, NOAA, regarding the management of the Papahānaumokuākea Marine National Monument and the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve. Council members represent conservation, research, education, Native Hawaiian, recreational and commercial fishing and ocean-related tourism interests, as well as the State of Hawai'i and the community at large. Since it was established by EO 13178 on December 4, 2000, the Council has played a key role in the development and implementation of the NWHI Coral Reef Ecosystem Reserve Operations Plan, as well as the inaugural Monument Management Plan when the Reserve became part of Papahānaumokuākea Marine National Monument in 2006.

The Council hereby submits the following response to the May 5, 2017, request from the Department of the Interior for comments on the seven criteria outlined in Presidential Executive Order 13792 pertaining to monument designations or expansions under the 1906 Antiquities Act made since January 1, 1996. In sum, the Council is strongly opposed to any executive action that would reduce or rescind the Marine National Monument created in 2006 and expanded in 2016.

Sincerely,

Timothy E. Johns

Timothy Johns
Chair
NWHI Coral Reef Ecosystem Reserve Advisory Council

Introduction. The Hawaiian Archipelago includes not only the familiar main Hawaiian Islands visited by millions of tourists every year, but also the older and largely uninhabited Northwestern Hawaiian Islands (NWHI) that extend 1,200 miles into the North Pacific Ocean. The NWHI have been protected for over 110 years by a succession of six United States Presidents (three Democrats, three Republicans) who all considered the NWHI to be worthy of conserving and who added various layers of protection. In 2006, President George W. Bush created the Papahānaumokuākea Marine National Monument, whose boundaries were expanded ten years later by President Barack Obama in part to protect recent undersea discoveries. In 2008, the Monument was designated a "Particularly Sensitive Sea Area" by the International Maritime Organization to protect marine resources of ecological or cultural significance from damage by ships while helping keep mariners safe. In 2010, it was inscribed as a World Heritage Site by the United Nations, the first U.S. site to be placed on the World Heritage List for both natural and cultural values.

The 3.5 million acres of coral reefs around the remote, mostly uninhabited northwestern three fourths of the Hawaiian Archipelago are spectacular and almost undisturbed by humans. The 1,350 mile stretch of coral islands, seamounts, banks, and shoals includes some of the healthiest coral reefs in the U.S. and provides an amazing geological record of volcanic and erosive powers that have shaped the Archipelago. This vast area supports a dynamic habitat containing an incredible diversity of coral, fish, birds, marine mammals and other flora and fauna, many of which are unique to the Hawaiian Island chain. In addition, the cultural significance of the area to Native Hawaiians as well as linkages to early Polynesian culture are resources worthy of protection and greater understanding and appreciation.

Responding to the Department of the Interior's request for comments on presidential proclamations under the Antiquities Act made since January 1, 1996, where a monument covers more than 100,000 acres, the NWHI Coral Reef Ecosystem Reserve Advisory Council offers the following comments on the seven criteria outlined in Executive Order 13792.

i) The requirements and original objectives of the Act, including the Act's requirement that reservations of land not exceed "the smallest area compatible with the proper care and management of the objects to be protected."

Designated in 2006 by President George W. Bush as the Northwestern Hawaiian Islands Marine National Monument, its boundaries protected all natural resources within 50 miles of the NWHI. In 2016, President Barack Obama expanded the boundaries out to 200 nautical miles to include newly discovered species and unique marine habitats and

the site of the decisive Battle of Midway in 1942. Shrinking the bounds that are currently in place would leave these areas defenseless to a multitude of threats. A detailed account of threats are discussed below. As such, the current designation of land is effectively "the smallest area compatible with the proper care and management of the objects to be protected."

The Hawaiian people have a creation chant, the *Kumulipo*, which reminds and recalls the expanse of their deep past and its connection to their vast unknown future. In this acknowledgement, it is the unceasing movement of time against the infinite size of the darkest ocean that energizes the *waliwali* or earthy matter from which all life forms are generated. It is clear and evident that the *Kumulipo* chant and the Hawaiian cultural view supports our creation from conditions and elements found in the limitless ocean. The vastness of this area is necessary for the organic arrangement of fundamental shapes, forms, thoughts and images into familial life form patterns. This the Hawaiian people believe. It is therefore important that we support this expansive area that is "compatible" and necessary to our creation and it needs "proper care and management" to protect our Hawaiian cultural existence.

The expanded area provides additional protection for open ocean features including seamounts, submerged reefs and sunken islands. It also provides immense opportunity for additional discovery and advancements in understanding of terrestrial, coastal and marine ecosystems. The original designation of the Monument included 33 seamounts; the 2016 expansion added approximately 132 more. These are almost undisturbed by humans and as such provide a pristine example of on-going ecological and biological processes in the evolution and development of these ecosystems and communities of plants and animals. The NWHI comprise more than half of the most isolated Archipelago on the planet and are an evolutionary textbook in terms of endemic birds, plants, insects, and coral reef species. In the 5468.8 square miles of coral reefs surrounding the islands, recent research utilizing technical diving allowed scientists to explore mesophotic (deep) coral reefs and discover over eighty new species of algae, as well as new species of corals, fishes, sea urchins, sea cucumbers, and sponges.

The NWHI most likely have the highest proportion of undiscovered reef species of any large reef ecosystem on the planet. Advances in diving equipment and technology have made possible incredible discoveries and the still unexplored deep-sea habitats likely hold many more species new to science. Submersible cruises in 2007 by the Hawai‘i Undersea Research Lab explored seamounts and rift zones between 1000-3000 feet, and returned with numerous new species of deep-water gorgonian corals and sponges. Several corals in the NWHI are so distinct from any known forms that they represent not only new species, but entirely new genera. Many marine species remain unidentified or even unknown to science.

Close to 50% of reef species at 100-300 feet are endemic (found nowhere else on Earth) to the Archipelago, twice the 25% endemism values found in less than 100 feet of water. In the NWHI endemic reef fishes account for upwards of 90% of the fishes on the deep reefs and approximately 50% of the individuals on the shallow-water reefs, resulting in unique endemic ecosystems. This is the highest level of endemism recorded from any marine ecosystem on Earth, and represents a globally significant repository of unique biodiversity. The biomass of marine species is 260% greater in the NWHI than in the main Hawaiian Islands. Fifty-four percent of the biomass are apex predators, like jacks, sharks and groupers; this high biomass of apex predators is unique to the NWHI. It may be one of the last remaining predator-dominated marine ecosystems left on the planet.

The Monument is also home to the highly endangered Hawaiian monk seal. Hawaiian monk seals are one of the most endangered seal species in the world. They are the last surviving species in their genus. The best estimate of the current total Hawaiian monk seal population is 1,400 seals -- about 1,100 in the NWHI (from Nihoa to Kure Atoll), and about 300 in the main Hawaiian Islands (from Niihau to Hawaii). The most recent annual population assessment shows that the Hawaiian monk seal, bucking past trends, has increased in numbers by 3% annually for the past three years. While numbers have increased since 2013, the long-term decline in abundance at the six main NWHI sites remains concerning. Several management measures have been implemented to stop the decline. For example, in 1991, to halt increasing monk seal mortality from tuna longline fishing gear, a 50-mile longline fishing exclusion zone was put in place and has been in place ever since.

The Monument provides nesting habitat and extensive foraging habitat for over 14 million seabirds including the Laysan albatross, the black-footed albatross, sooty terns, lesser frigatebirds, red-footed boobies, and red-tailed tropic birds. The expansion area also includes portions of the migratory paths and feeding grounds for five species of marine turtles including the critically endangered Hawksbill and Leatherback turtles, and the endangered Olive Ridley and Loggerhead turtles. The Monument provides nearly the entire nesting habitat for the threatened Hawaiian Green turtle. On the undisturbed beaches of these remote atolls, both male and female turtles come ashore to bask on the beach in broad daylight, a behavior no longer seen in most other parts of the world. More than 20 cetacean species are found in the Monument, including six that are federally and/or internationally recognized as endangered and all of which are protected by the Marine Mammal Protection Act.

Despite the remote location and the absence of a permanent human population, it is vital that the NWHI retain formal protection. Situated in the middle of the Pacific Ocean at the fulcrum of the North Pacific gyre and at the mid-point between the

economic giants of the east and west, the NWHI are subject to the full range of environmental and anthropogenic stressors. Many threats originate far outside the NWHI. Marine debris, largely consisting of discarded or lost fishing nets from distant fleets and plastic trash, threatens and damages coral reef and coastal habitats, entangles and chokes marine life, and aids in the transport of contaminants. The introduction of alien species to the area has led to the establishment of invasive species that crowd out native species, altering habitat and food webs. Alien species may arrive on vessels or debris of any kind from ports around the world. Discharges from vessels operating in or transiting the NWHI can introduce pathogens that contribute to coral disease and could threaten marine mammal populations.

ii) *Whether designated lands are appropriately classified under the Act as "historic landmarks, historic and prehistoric structures, [or] other objects of historic or scientific interest."*

The NWHI possess a rich maritime history and heritage stretching back long before written records, and ship and aircraft wreckage sites within the NWHI serve as a window into history. Native Hawaiian chants and oral histories tell of exploration and settlement in the area, while more recent shipwreck and sunken aircraft sites scattered throughout the Monument help tell the story of a post-contact maritime past. Archival research indicates that there may be as many as 60 shipwreck sites, the earliest of which dates back to 1818, and at least 70 aircraft wreck sites in Monument waters. These sites provide the physical record of past activities in the NWHI, but they also represent the broader cultural heritage and human history of this site. These sites represent the material legacy of our nation's maritime heritage in this region, providing a window through which we can better understand our seafaring past.

Beginning thousands of years ago, long-distance voyages across the Pacific established the remarkable navigational skill and maritime ability of Micronesian and Polynesian sailors. European and American traders began to call at the main Hawaiian Islands during the late 18th and early 19th centuries and by 1825 Honolulu became the most important port in the entire Pacific. During the 19th and 20th centuries, the NWHI were witness to an increase in extractive activities, which included whaling ships working in the vicinity of the NWHI, as well as the commercial exploitation of other marine and terrestrial wildlife. Hawaiian monk seals were depleted by mass hunting for their oil and pelts. Bird eggs, skins, and feathers were also harvested and guano mining occurred on several islands. Commercial fishing in NWHI waters began with the arrival of large schooners and other sailing ships that hailed from ports around the world. These vessels departed the islands with cargoes of whale meat, bone and oil, shark meat, fins and oil, turtle shells and oil, and sea cucumbers.

The poorly charted NWHI presented a challenge to ships and sailors engaged in commercial activities. The low profile reefs and atolls represented a significant navigational hazard and were frequently the sites of shipwrecks. Crews were often stranded for many months and were forced to construct smaller vessels from salvaged timbers to rescue themselves. Some vessels were lost with all hands. More recently, the NWHI played a significant role in U.S. history. Midway Atoll was a connecting link in the first around-the-world communications cable laid in 1903. The atoll also provided a base for Pan American Airways Flying Clippers beginning in 1935. During World War II, Midway Atoll became a major U.S. military base. The Atoll was attacked twice, once on December 7, 1941, just after the attack on Pearl Harbor, and again during the pivotal Battle of Midway in June 1942, which turned the tide of the War in the Pacific in America's favor. It is now home to the Battle of Midway National Memorial.

The shipwrecks, including that of the gallant aircraft carrier USS *Yorktown*, combined with known aircraft crash sites such as the WWII P-40 Warhawk fighter plan**e** recently discovered at Midway, make a total of nearly 800 potential maritime heritage sites. Many of these sites, as defined by state and federal preservation laws, are of historical and national significance. They are a physical record of past activities in the NWHI and represent unique aspects of island and Pacific history.

Despite this impressive legacy and ongoing tradition in the Pacific, few physical remains of these vessels and practices exist in an archaeological context. The material remains of a more recent seafaring history in the NWHI—such as American and British whaling ships, Japanese junks, U.S. Navy steamers, Hawaiian fishing sampans, Pacific colliers, salvage vessels, and U.S. Navy aircraft—dot the waters of the Archipelago. To date, 20 of these sites have been discovered and documented by maritime archaeologists. Nomination of the *Two Brothers* whaling ship to the National Register of Historic Places is currently in process. Several other maritime heritage sites will be nominated to the National Register in the future. Sites of significance are discovered on an annual basis during research expeditions to survey and develop an inventory of the resource base and as such, it is crucial to protect these sites and those yet to be uncovered.

iii) The effects of a designation on the available uses of designated Federal lands, including consideration of the multiple-use policy of section 102(a)(7) of the Federal Land Policy and Management Act (43 U.S.C. 1701(a)(7)), as well as the effects on the available uses of Federal lands beyond the monument boundaries.

Midway Atoll serves as the hub of operations for management activities in the northwestern end of the Monument. It also serves as the window to the Monument when it is open to public visitation. The U.S. Fish and Wildlife Service's (USFWS) long-term

goal for Midway is to "achieve sustainable operations at Midway, including robust biological, historic/cultural preservation and visitor services programs." Unfortunately, visitor service programs are heavily impeded by a lack of funding and Midway is currently closed to all recreation activities. When it is open, only a limited number of rooms are available for visitors, helping to keep the human impact on this fragile and historic resource to a minimum. Visitors are also limited by the number of people who can be accommodated on charter aircraft. The aircraft currently chartered by the USFWS and visitor groups can carry only 18 passengers. For one-day commemorative events like the Battle of Midway Anniversary, more people may be present on the island when overnight lodging is not needed.

Keeping all of the buildings that are in use on Midway in good repair is a continual endeavor due to their age, the harsh marine environment, and occasional severe weather incidents. Improvements such as installing new roofs, termite control and basic repairs have been undertaken over the years. Thanks to a $1.6 million American Recovery and Reinvestment Act grant, the Officers' Row of housing underwent major renovations, with electricity being supplemented by solar panels, and all historic officers' structures are now used for housing. The transportation building has also received some repairs. Currently, many of the buildings are being painted to encapsulate lead-based paint (the flaking paint, when eaten by albatross chicks, kills 7,000 to 10,000 chicks a year). However, there is a maintenance backlog due to insufficient funds.

In addition to the cost of maintenance and the lack of accommodations, Midway's remote location and the high cost of fuel and aircraft charters make it an expensive place to visit. The USFWS has investigated several administrative and logistical management options related to administering reservations, cancellations and collection of money, including on-site management of independent travel groups. It has been determined that it would not be possible to advertise, manage reservations and cancellations and respond to travel requests, in addition to developing and investigating a legal mechanism for collection of money, without an additional full-time staff person dedicated to visitor services management. The current budget climate does not allow for this additional staff.

The USFWS is working with the resources they have available to make Midway more accessible to visitors, volunteers and resource management agencies, but to continue to function in both capacities it needs continued public and private support. Permits are available from the Monument to conduct research or do commercial filming and photography. The USFWS recently created a new addition to the Visitor Center specifically highlighting and memorializing the Battle of Midway and the brave soldiers who fought in this land and sea battle of world significance. Seventy-five years ago, the United States experienced one of its greatest victories of World War II on Midway Atoll

in June 1942. This was the turning point of the war in the Pacific, and is considered one of the most important naval battles in U.S. history. The exhibit documents the Battle of Midway and honors those who fought in this historic battle.

iv) The effects of the designation on the use and enjoyment of non-Federal lands within or beyond monument boundaries.

Because of the NWHI's remoteness and ecological sensitivity, the guiding educational principle of NWHI managers and education staff is to bring the place to the people, instead of the people to the place. Education and outreach efforts focus on increasing understanding of ecosystem management, developing an ocean stewardship ethic, and training the next generation of leaders to be both scientifically and culturally grounded. All educational activities seek to actively engage the public in knowing and understanding the marine environment and the cultural and historic aspects of the Monument. Inspired by the Polynesian Voyaging Society, this guiding premise brought together resource management agencies and partners to implement the multiyear "Navigating Change" project, which focuses on raising awareness and motivating people to change their attitudes and behaviors to better care for Hawaii's land and ocean resources. Other outreach efforts include teacher-at-sea programs, the Maritime Heritage Educational Resources for Kids, Winged Ambassadors: Ocean Literacy through the Eyes of Albatross (aligned to Next Generation Science Standards and Common Core State Standards), NWHI exhibits at the Waikiki Aquarium and the Maui Ocean Center, and Google Street View.

Established in 2003, the Mokupāpapa Discovery Center in Hilo, Hawaii, is the premier educational and interpretative facility that brings the remote NWHI to the world. Since most people will never have the opportunity to visit the remote islands and atolls of the NWHI, Center serves to bring the place to the people and spur greater public awareness of the region and ocean conservation issues. An important educational hub in the Hilo community for more than a decade, the Center hosts more than 50,000 visitors yearly and also provides free monthly lectures and learning activities to schools and other groups. The NWHI provide a model and rare benchmark of a healthy, intact ecosystem, conserved in its natural state that may serve to inspire Hawaii's residents, all Americans, and the global community to take part in ocean restoration efforts. These important outreach programs allow people to learn about the important scientific and cultural discoveries made at the NWHI while allowing the NWHI themselves to continue to be mostly undisturbed.

v) Concerns of State, tribal, and local governments affected by a designation, including the economic development and fiscal condition of affected States, tribes, and localities.

The NWHI have natural and cultural significance that cannot be understated. In 2010, the Monument was inscribed as a mixed natural and cultural World Heritage Site by UNESCO, making it the first mixed UNESCO World Heritage Site in the United States. Evidence indicates that the Native Hawaiians are some of the few humans who are thought to have spent significant time in this seemingly untouched place it served as a home, a source of sustenance, and/or place of worship for centuries. This inextricably links the preservation of the area to the preservation of Hawaiian culture and history.

Most family genealogies of Native Hawaiians begin with the *Kumulipo*, or creation chant. The *Kumulipo* depicts the history of creation, beginning with the simplest of organisms and gradually reaching higher levels of complexity in the natural world, eventually completing the cycle of life with humans. As with most oral traditions, different families had variations of the creation chant, and different stories evolved as the chant moved closer to the evolution and naming of humans. It is through the perpetuation of chants like the *Kumulipo* – and other ancient traditions, practices, and protocols – that Native Hawaiians have passed on their spiritual belief that the people are deeply related to the natural environment, and in fact, all of the natural resources are also cultural resources.

Physical remnants of *wahi kūpuna* (ancestral places), Hawaiian language archival and oral resources, and historical accounts provide evidence of the various past uses of the NWHI and the surrounding ocean by Native Hawaiians. It is posited that the first Native Hawaiians to inhabit the Archipelago frequented Nihoa and Mokumanamana for at least a 500- to 700-year period. They brought many of the skills necessary to survive with them from their voyaging journeys throughout Polynesia. Over time, they developed complex resource management systems and additional specialized skill sets to survive on these remote islands with limited resources.

It is believed that Mokumanamana Island played a central role in Hawaiian ceremonial rites and practices a thousand years ago because it is directly in line (23° 34.5′ N latitude) with the rising and setting of the equinoctial sun along the Tropic of Cancer. In Hawaiian, this path is called "*ke ala polohiwa a Kāne,"* or the "way of the dark clouds of Kāne," which has been translated to mean death or the westward pathway of the ancestral spirits. Because Mokumanamana sits on the northernmost limit of the path the sun makes throughout the year, it sits centrally on an axis between two spatial and cultural dimensions: pō (darkness, creation, and afterlife) and ao (light, existence). On the summer solstice (the longest day of the year), the sun travels slowest across the sky on this northern passage, going directly over Mokumanamana. The island has the highest concentration of ceremonial sites anywhere in the Hawaiian Archipelago. All of these sites are strategically placed and act as physical reminders of the important spiritual role

these sites play in Hawaiian culture. The sites and structures are channels for the creation of new life, and facilitate Native Hawaiians' return to source after death.

Nihoa and Mokumanamana are thought to have been frequented until about 700 years ago, voyages to these islands and others in Papahānaumokuākea for the gathering of turtles, fish, bird feathers, and eggs continued into the 20th century, particularly from Kaua‘i and Ni‘ihau. Cultural practices like these continue to remind and teach Native Hawaiians of the connections and relationships their ancestors have passed down from generation to generation.

Commercial fishing in the NWHI has a long history dating back to the nineteenth century. In the modern era, increased interest in commercialization of near-shore fisheries in the NWHI became a focus in the 1970s with the development of a lobster fishery and a bottomfish fishery focusing on demersal species. Pelagic fisheries targeting highly migratory species also operated in and around the NWHI, but outside of the 50 nautical mile protected species zone.

The spiny lobster fishery was closed in 2000 because of shortcomings in understanding the dynamics of the NWHI lobster populations, increasing uncertainty in population model parameter estimates, and the lack of appreciable rebuilding of the lobster population despite significant reductions in fishing effort throughout the NWHI. Moreover, the potential ecosystem impacts of commercial bottomfish fishing in the NWHI, such as the role of metapopulation structure, biomass removal, and spatial movement between banks, are largely unknown. Similarly, the relationship between pelagic species and ecosystems of the NWHI is uncertain, as is the impact from allowing commercial fishing for these species.

Given the guiding principle of the Monument to err on the side of resource protection when there is uncertainty in available information on the impacts of an activity, the 2006 Proclamation carried with it a 5-year phase out of all commercial fishing, effectively ending commercial fishing out to 50 nautical miles in 2010. Commercial fishing was also prohibited in the expansion area.

Sustenance fishing (i.e., fishing for bottomfish or pelagic species that are consumed within the Monument) is authorized in the Midway Atoll Special Management area under certain conditions and throughout the Monument with a Native Hawaiian Practices permit. Non-commercial fishing is allowed in the expansion area, provided that the fish harvested, either in whole or in part, cannot enter commerce through sale, barter, or trade, and that the resource is managed sustainably.

The Monument was not created nor expanded on a presidential whim. Over the years tens of thousands of individuals have provided input both in writing, at several public meetings and scoping hearings, and at intra agency meetings held all over the State of Hawai‘i. Over 6,400 comments were submitted on the draft Monument Management Plan alone, which are available on line. (See also Volume 5 of the Monument Management Plan) Over 6,800 comments were submitted on the 2016 expansion proposal. The vast majority of them support the Monument. Additionally, the Monument meets all seven of the criteria outlined in Executive Order 13792. It is vital that the Monument remain in its current form to protect and preserve the many natural, cultural, and historic treasurers within its bounds.

vi) The availability of Federal resources to properly manage designated areas

The Monument is managed by four co-trustees: the U.S. Department of Commerce, the U.S. Department of the Interior, the State of Hawaii, and the Office of Hawaiian Affairs. The trustees are guided by the following eight goals and the Monument Management Plan.

1. Protect, preserve, maintain, and where appropriate restore the physical environment and the natural biological communities and their associated biodiversity, habitats, populations, native species, and ecological integrity.
2. Support, promote, and coordinate research, ecosystem characterization, and monitoring that increases understanding of the NWHI, improves management decision-making, and is consistent with conservation and protection.
3. Manage and only allow for human activities consistent with Proclamation 8301 to maintain ecological integrity and prevent or minimize negative impacts for the long-term protection.
4. Provide for cooperative conservation including community involvement that achieves effective Monument operations and ecosystem-based management.
5. Enhance public understanding, appreciation, and support for protection of the natural, cultural, and historic resources.
6. Support Native Hawaiian practices consistent with long-term conservation and protection.
7. Identify, interpret, and protect Monument historic and cultural resources.
8. Offer visitor opportunities at Midway Atoll to discover and appreciate the wildlife and beauty of the NWHI, enhance conservation, and honor its unique human history.

In accordance with the Government Performance and Results Act, the Monument Management Plan includes procedures to help ensure that federal resources are used as efficiently and cost-effective as possible. Performance measures are used to evaluate

whether the Plan's strategies and activities are achieving the goals and desired outcomes of the Monument. Since the Plan's inception, this evaluation process has been used to improve programs and accountability, prioritize activities, and inform stakeholders and the general public. All public funding for implementation of the Management Plan is subject to the budgeting and appropriation processes of federal and state governments. As of this date, approximately 80% of the Plan's management activities have been implemented. Given that there were over 300 management activities in the initial Plan and that federal and state resources to support these activities have been limited, this high level of Plan implementation is a remarkable achievement.

A major reason that implementation of the Plan has been so successful is that effective use of federal resources has been maximized by developing public/private partnerships and collaborations in the management of the Monument. These include a multi-agency partnership that coordinates the removal of many thousands of tons of marine debris that entangle turtles and monk seals and damage NWHI reefs. Cooperation between the U.S. Coast Guard, Schnitzer Steel Hawaii Corporation and the City & County of Honolulu has resulted in the conversion of marine debris brought back from the NWHI atolls and reefs into energy to power homes on Oahu. Other public/private partnerships include those with the University of Hawaii's Institute of Marine Biology and the Hawai`i Undersea Research Laboratory, the Kure Atoll Conservancy and the State of Hawaii Department of Land & Natural Resources, the Office of Hawaiian Affairs Cultural Working Group, the USFWS' Friends of Midway National Wildlife Refuge, and the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve Advisory Council (RAC).

The RAC is a community-based advisory group consisting of representatives from various constituencies that provide a public forum for community consultation and deliberation on resource management issues affecting the Reserve. The role of the Council is to provide advice and recommendations to the Office of National Marine Sanctuaries. Since its inception, the RAC has played a key role in the development and implementation of the Reserve Operations Plan, as well as the inaugural Monument Management Plan when the Reserve became part of Papahānaumokuākea Marine National Monument in 2006. Reserve Advisory Council members represent conservation, research, education, Native Hawaiian, recreational and commercial fishing and ocean-related tourism interests, as well as the State of Hawai‘i and the community at large.

vii) Such other factors as the Secretary deems appropriate.

Past, Present and Future Threats

Even with the current protections in place there are many threats to the Monument ecosystems and habitats. Although there are no coal, oil, or gas resources in the Monument, there have been numerous shipwrecks in the NWHI over the last 200 years that have caused hydrocarbon pollution. In 1998, the *Paradise Queen II* ran aground at Kure Atoll, spilling 11,000 gallons of diesel fuel and 500 gallons of hydraulic fluids and oil in addition to 1,040 lead-weighted lobster traps and 11 miles of lobster pot main line. Two years later researchers found broken coral, 600 lobster traps and the bodies of two monk seals among the piles of nets surrounding the vessel's decaying wheelhouse. In 2000 a longline vessel, the *Swordsman I*, took a short cut across Pearl and Hermes Reef and ran aground. The U.S. Coast Guard removed its fuel oil and the State of Hawai'i removed the vessel from the reef for a total mitigation cost of approximately $2 million. In 2005, the logistics vessel *Casitas*, chartered by NOAA for marine debris removal work, went hard aground on Pearl and Hermes Atoll. All petroleum-based products were removed before she was refloated and towed to deeper water where she was scuttled.

Derelict vessels also pose a threat such as the ones drifting around the Pacific after the March 2011 Japan earthquake and tsunami and going aground in the NWHI. If a vessel does not have any hazardous materials or oil on board and is not a hazard to navigation, the U.S. Coast Guard likely would not be able to respond and it would be the responsibility of the Monument managing agencies to remove the vessel. The problem of removing derelict vessels from the NWHI was clearly demonstrated by the difficulty in removing the small sailing vessel *Grendel* from the Kure Atoll lagoon; the process took almost three years, and was only completed thanks to the U.S. Navy donating salvage team training time.

Climate change, coral bleaching and disease also threaten these remote reefs. Coral bleaching in the NWHI was first observed during late summer 2002. Bleaching was most severe at the northern-most atolls of Kure, Midway, and Pearl and Hermes, which are nearest to the very large pool of warmer ocean water in the North Pacific where the surface temperature is now several degrees above its ambient temperature. Coral bleaching has become an annual event in this area and is spreading. In 2014, a mass coral bleaching event at Lisianski Island and neighboring reefs was documented. Ninety percent of the coral colonies in less than 30 feet of water exhibited signs of bleaching. Prevalence of bleaching between 30 and 100 feet in depth was 30%-40%.

Baseline levels of coral disease have been documented and are being monitored. Tumors, as well as lesions associated with parasites, bacteria and fungi, have been found on a number of coral species. The overall average prevalence of disease was found to be very low, estimated at 0.5% of the colonies, with the highest prevalence in species of *Acropora*, a coral genus found almost exclusively around a few islands and atolls in the center of the NWHI and in *Montipora*. A protocol for characterizing coral disease has now been incorporated into regular coral surveys and monitoring. The threatened green sea turtle is affected by fibropapillomatosis, a disease that causes debilitating and often lethal tumors. In 1991, the prevalence of this disease in the turtle population was estimated at 40-60%, with the majority of cases found among juvenile turtles. Even when there are no obvious tumors on the turtles, most are thought to carry the virus. These threats exist even with the current protections in place, reducing the regions protections would be detrimental, likely devastating, to the region.

Invasive alien species also represent a continuing threat to the NWHI. The reefs of the main Hawaiian Islands are dominated by alien flora and fauna, and research in the last decade indicates that most marine species naturally spread northwestward from the main Hawaiian Islands to the NWHI. In addition, 80% of all invasive aquatic species are spread by vessel hulls. There are over 350 invasive aquatic species established in the MHI and every vessel traveling from there to the NWHI has the potential of spreading them to the area – the more traffic, the greater the threat. Already 12 invasive marine invertebrate, fish, and algal species have been recorded in the NWHI at Midway Atoll and one algae species (*Hypnea* sp.) at Mokumanamana where it may have been introduced by fouled fishing vessels and lobster traps decades ago. All vessels given permits to enter Monument waters are now required to have their hulls inspected and certified free of species alien to the NWHI. The USFWS requires that all visitors entering the Monument have their vessel hulls free of fouling organisms and sterilize their clothing before coming on shore.

Conclusion. In sum, the Northwestern Hawaiian Islands have been protected for over 110 years by a succession of six United States Presidents who all considered the area to be a place worth preserving and who added layers of protection. We hope we can add the current President to that list. This area is one of the last and most unspoiled places left on Earth and holds many historically and culturally significant sites that provide unique insights into events of both the recent and ancient past. The current boundaries of the Papahānaumokuākea Marine National Monument encompass "the smallest area compatible with the proper care and management of the objects to be protected." Shrinking its boundaries would leave it exposed to a multitude of threats. We implore the current Administration to continue to protect this important area, as your predecessors have, so that this national treasure can continue to be preserved.