MARINE NATIONAL MONUMENT MANAGEMENT CHALLENGES & RECOMMENDATIONS FOR IMPROVEMENTS

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I. INTRODUCTION

How are public lands managed when they are submerged underwater? Marine National Monuments (MNMs) are federally managed public "lands," and yet they are in waters offshore of the United States (U.S.), which creates resource management challenges. MNMs can be more effectively managed with a standardized management plan and enforcement methods specific to marine areas. Currently, only site-specific MNM management plans exist, and there are no standardized enforcement guidelines to ensure that these uniquely managed areas receive timely and effective management. Creating a set of standards for MNM management plans and a set of guidelines for developing and enforcing monument-specific plans should be implemented to ensure proper care and management of these areas.

All national monuments are managed by federal agencies. Unlike other national monuments, MNMs are jointly managed by the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Fish and Wildlife Service (USFWS). These agencies manage a wide variety of U.S. waters and lands. USFWS, for example, manages ninety-six million acres of public lands including wildlife and habitat conservation resources.[2] The U.S. Coast Guard (USCG) also plays a valuable role in MNM management, as they monitor U.S. waters for safety and security, manage vessel traffic, and enforce federal regulations. NOAA and the USCG have a partnership dating back to the 1800s, and their relationship today "is guided by the 2013 Cooperative Maritime Strategy, which focuses on three main areas: promoting a safe and sustainable marine environment;

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[2] *Volunteers and Invasive Plants- How do the Federal Land Management Agencies Differ?*, NAT'L WILDLIFE REFUGE SYS., https://www.fws.gov/invasives/volunteersTrainingModule/nwrsystem/agencies.html (last visited July 8, 2020).

enhancing regional collaboration; and fostering innovation in science, technology, and youth education."[3] This partnership is vital to marine resource protection.

MNMs are designated to protect and conserve remote areas of the ocean, including species such as coral, fish, and seabirds that reside in the area. Additionally, they are designated in order to support scientific exploration and promote education about these valuable areas.[4] MNM designations are missing a universal management plan for the unique designation of MNMs. In order to explore management plan possibilities, the following must be examined: the historical background of MNMs in relation to other national monuments; the current landscape of MNM management; the key issues facing MNM management; stakeholders of MNMs; environmental consequences for and against various levels of management; economic consequences of lenient MNM management; and adaptive strategies to consider when moving forward for more effective protection of MNM resources.

II. HISTORICAL BACKGROUND OF THE ISSUE

In 1906, Congress passed the Antiquities Act,[5] which grants the current President authority to designate national monuments. There are 158 national monuments that have been established by the Presidents of the United States.[6] Of those, nine are water-based national monument designations. There are only five designated MNMs, and the first was established less than fifteen years ago (in 2006). The five monuments in Table 1, which are jointly managed by NOAA and USFWS, are denoted more specifically as MNMs. The other four water-based national monuments, which are not MNMs, are managed by other federal agencies as indicated in the Note a of Table 1.

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[3] Emma Skelley & Jennifer Damian, *Guardians of the Sea: Protecting the Ocean Together*, NAT'L MARINE SANCTUARIES, https://sanctuaries.noaa.gov/news/apr18/noaa-and-coast-guard-protect-ocean-together.html (last visited June 25, 2020).

[4] *Marine National Monuments in the Pacific,* NOAA FISHERIES, https://www.fisheries.noaa.gov/pacific-islands/habitat-conservation/marine-national-monuments-pacific (last visited June 25, 2020).

[5] 16 U.S.C. §§431-433.

[6] CAROL HARDY VINCENT, CONGRESSIONAL RESEARCH SERV., NATIONAL MONUMENTS AND THE ANTIQUITIES ACT (2018), *available at* https://fas.org/sgp/crs/misc/R41330.pdf (last visited June 25, 2020); *Antiquities Act 1906-2006*, NAT'L PARK SERV., https://www.nps.gov/archeology/sites/antiquities/monumentslist.htm (last visited June 25, 2020).

Table 1. List of Marine National Monuments Sorted by Date Established

Name	*Agency*	*Location*	*Area (acres)*	*Year Established*
Papahānaumokuākea Marine National Monument	NOAA, USFWS	U.S. Minor Outlying Islands near Hawai'i	372,848,597	2006[b]
Pacific Remote Islands Marine National Monument	NOAA, USFWS	US Minor Outlying Islands southwest of Hawai'i	313,941,851	2009[c]
Rose Atoll Marine National Monument	NOAA, USFWS	American Samoa	8,609,045	2009
Mariana Trench Marine National Monument	NOAA, USFWS	Northern Mariana Islands- Guam	61,077,668	2009
Northeast Canyons and Seamounts Marine National Monument	NOAA, USFWS	The Atlantic Ocean, off the coast of Massachusetts	3,144,320	2016

[a] National Monuments that are water-based, but do not have an MNM designation: Buck Island Reef National Monument, Virgin Islands Coral Reef National Monument, California Coastal National Monument, San Juan Islands National Monument.
[b] Boundaries expanded by 283.4 million acres in 2016.[7]
[c] Boundaries expanded by 261.3 million acres in 2014.[8]

The Antiquities Act also grants the President the authority to modify national monument size, boundaries, names, and resource management.[9] Some administrations may determine the designated area to be too large or too small in order to meet the statutory mandate requiring the monument to contain the smallest area necessary for proper management. For example, President George

[7] Vincent, *supra* note 6.
[8] *Id.*
[9] Vincent, *supra* note 6; Proclamation No. 9496, 81 Fed. Reg. 65,161, Northeast Canyons and Seamounts Marine National Monuments (Sept. 15, 2016), *available at* https://obamawhitehouse.archives.gov/the-press-office/2016/09/15/presidential-proclamation-northeast-canyons-and-seamounts-marine (last visited June 25, 2020) [hereinafter Northeast Canyons and Seamounts Proclamation].

W. Bush modified the Papahānaumokuākea MNM in 2007 through Presidential Proclamation 8,112, including revising its name (it was formerly known as the Northwestern Hawai'ian Islands MNM).[10]

A similar change can be seen with the Northeast Canyons and Seamounts MNM. In 2016, President Obama established the Northeast Canyons and Seamounts MNM, the first MNM in the Atlantic Ocean, and included management provisions that outlined relevant prohibited and regulated activities in this area.[11] However, on June 5th, 2020, President Trump issued a Presidential Proclamation, which modified the monument by lifting the prohibition on commercial fishing.[12]

MNMs are a subset of a broader category of Marine Protected Areas (MPAs), which may be designated by local, state, and federal authorities. As summarized in Table 2, while MNMs are designated through presidential proclamations by means of the Antiquities Act, the Secretary of Commerce designates National Marine Sanctuaries through the National Marine Sanctuary Act (NMSA).[13] While current MNM management varies based on individual MNM management plans and existing applicable policies, the NMSA is an important framework to view as a model when recommending MNM management improvements. Another important act to consider in MNM

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[10] CAROL HARDY VINCENT & LAURA A. HANSON, CONGRESSIONAL RESEARCH SERV., EXECUTIVE ORDER FOR REVIEW OF NATIONAL MONUMENTS: BACKGROUND AND DATA 12 (2017), *available at* https://fas.org/sgp/crs/misc/R44988.pdf (last visited June 25, 2020).

[11] Vincent, *supra* note 6; Northeast Canyons and Seamounts Proclamation, *supra* note 9.

[12] Proclamation No. 10,049, 85 Fed. Reg. 35,793, Modifying the Northeast Canyons and Seamounts Marine National Monument (June 11, 2020), *available at* https://www.federalregister.gov/documents/2020/06/11/2020-12823/modifying-the-northeast-canyons-and-seamounts-marine-national-monument (last visited Oct. 1, 2020). It should be noted that groups have filed suit challenging President Trump's ability to modify this MNM. Further, "the impacts of this proclamation are likely minimal. It is unknown how many commercial fishermen will actually make the 130-mile trek out to the monument's boundaries to fish…[and] the commercial fishing industry will still be regulated by a host of legislation such as the Endangered Species Act (ESA) and the Magnuson-Stevens Fishery Conservation and Management Act." Madeline Doten, *Environmental Impacts of Recent Executive Actions*, 19:4 SANDBAR 14 (2020). Further, "the New England Fishery Management Council — the council in charge of managing [the monument] — also announced plans to expand fishing restrictions within the monument's borders….[including restricting] all fishing, except deep-sea red crab pots, between canyons 600 meters and deeper out to the monument's 200- mile limit." *Id.*

[13] 16 U.S.C. §§ 1431 -1445c-1. *See also Northeast Canyons and Seamounts Marine National Monument Frequently Asked Questions,* NOAA FISHERIES, https://www.fisheries.noaa.gov/new-england-mid-atlantic/ecosystems/northeast-canyons-and-seamounts-marine-national-monument (last visited June 25, 2020).

management is the Magnuson-Stevens Fishery Conservation and Management Act (MSA) of 1976.[14] This act is the primary law governing marine fisheries management in U.S. federal waters, and marine fisheries are just one of the many valuable resources present in MNMs.[15]

Table 2. Differences between National Marine Sanctuaries and Marine National Monuments[16]

	National Marine Sanctuaries	***Marine National Monuments***
Statutory Authority	National Marine Sanctuaries Act	Antiquities Act
Creation Mechanism	NOAA administrative action or Congress	Presidential Proclamation
Federal Manager	NOAA	Can be multiple; depends on Presidential Proclamation

III. CURRENT LANDSCAPE

MNMs are managed by the Secretary of Commerce through NOAA and the Secretary of the Interior through the USFWS (collectively, the Secretaries). The Secretaries manage MNMs under both the Antiquities Act and the MSA. Furthermore, they are responsible for the management of activities within the monuments under relevant laws. These include, but are not limited to: the National Wildlife Refuge System Administration Act;[17] the Refuge Recreation Act;[18] the Endangered Species Act;[19] the Marine Mammal Protection Act;[20] and Executive Order 6166 (June 10, 1933), which consolidated the sixty-four existing federal parks, monuments, and historical sites under the National Park Service.[21]

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[14] 16 U.S.C. §§1801 - 1891(d).
[15] *Laws & Policies*, NOAA FISHERIES, https://www.fisheries.noaa.gov/topic/laws-policies (last visited June 25, 2020).
[16] *See Monuments and Sanctuaries: What's the Difference?*, NAT'L MARINE SANCTUARIES, https://sanctuaries.noaa.gov/about/monuments-and-sanctuaries-whats-the-difference.html (last visited Oct. 26, 2020).
[17] 16 U.S.C. § 668dd.
[18] *Id.* §§ 460k-460k-4.
[19] *Id.* §§1531-1544.
[20] *Id.* §§ 1361-1407.
[21] Exec. Order 6166, Organization of Executive Agencies (June 10, 1933), *available at* https://www.archives.gov/federal-register/codification/executive-order/06166.html (last visited June 25, 2020).

The three Pacific MNMs (Mariana Trench, Pacific Remote Islands, and Rose Atoll) are also maintained and managed by the Commonwealth of the Northern Mariana Island and American Samoa governments.[22]

Many activities are restricted in MNMs in order to conserve their valuable resources. The proclamation for the Northeast Canyons and Seamounts MNM, for example, prohibited: oil and gas exploration; the use of explosives and poisons; species introduction; movement or disturbance of any living or nonliving resources of the monument; drilling, anchoring, and dredging; and commercial fishing. Other activities are allowed but regulated: scientific research; activities that promote educational value; recreational fishing that follows applicable fishery management plans; and red crab and American lobster commercial fishing. While previously authorized with restrictions, red crab and American lobster commercial fishing were prohibited until September 2023, seven years after the date of proclamation, as a compromise to allow for the commercial fishery to relocate operations to outside of the monument.[23] This no longer holds true as commercial fisheries prohibitions were lifted with Presidential Proclamation 10,049 of June 5, 2020.[24] However, under its authority under the MSA, the New England Fishery Management Council has "announced plans to expand fishing restrictions within the monument's borders….[including restricting] all fishing, except deep-sea red crab pots, between canyons 600 meters and deeper out to the monument's 200-mile limit."[25]

Management plans for MNMs must be developed within a certain number of years of the date of the proclamation so that proper care and regulations are set in place. In the Northeast Canyons and Seamounts proclamation, for example, it was stated that a management plan must be developed within three years; for the Marianas Trench, the allotted time was two years.[26] This is too large of a time gap for marine resources to lack proper management, especially when afforded swift

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[22] *Marine National Monuments in the Pacific*, *supra* note 4.
[23] Northeast Canyons and Seamounts Proclamation, *supra* note 6; TBD ECONOMICS, LLC, ANALYSIS OF POTENTIAL ECONOMIC IMPACTS OF THE NORTHEAST CANYONS AND SEAMOUNTS MARINE NATIONAL MONUMENT ON THE DEEP-SEA RED CRAB AND AMERICAN LOBSTER FISHERIES (2017), *available at* https://earthjustice.org/sites/default/files/files/TBD-Econ_analysis_NE_MNM-072617.pdf (last visited June 25, 2020).
[24] Proclamation No. 10,049, *supra* note 12.
[25] Doten, *supra* note 12.
[26] Northeast Canyons and Seamounts Proclamation, *supra* note 6; Presidential Proclamation, Establishment of the Marianas Trench Marine National Monument (Jan. 6, 2009), *available at* https://georgewbush-whitehouse.archives.gov/news/releases/2009/01/20090106-2.html (last visited June 25, 2020).

protections under the Antiquities Act. Currently, management plans are monument-specific and lacking for MNMs other than Papahānaumokuākea, and there are no unified management creation or implementation guidelines for MNMs that could help fill the gaps in management plans and their development.

IV. KEY ISSUES

Efficiently monitoring for illegal activity that is harmful to natural resources in such vast areas, enforcing management plans, and allowing these plans to be adaptive with the anticipated effects of climate change are all major issues associated with managing MNMs. MNMs are in marine and often remote locations, which creates challenges and concerns with regulation enforcement. Furthermore, MNM resources distinctly vary from land-based national monuments and, therefore, would benefit from a separate, defined resource management protocol.

A. Monitoring

There are many human activities that cause damage to the resources of MNMs. These activities include illegal resource extraction (e.g., fishing activity), accidental oil spills, and the introduction of marine or terrestrial species by small recreational vessels.[27] Current real-world threats include consistent levels of illegal fishing by U.S. registered vessels inside the boundaries of the Rose Atoll and Pacific Remote Islands MNMs, foreign vessels illegally fishing inside the Mariana Trench MNM, several documented cases of illegal trespassing by recreational sailboats in the Pacific Remote Islands MNM, groundings and oil spills on the Rose Atoll, and other physical damage to the monuments by commercial vessel traffic.[28]

While there are commercial fishing restrictions at the Northeast Canyons and Seamounts MNM, no regulations exclusively prohibit these activities in the Mariana Trench, Rose Atoll, and Pacific Remote Islands MNMs.[29] Furthermore, due to the vast size and wide-spread nature of these MNMs, USFWS, NOAA, and the USCG are not equipped or sufficiently funded for the level of enforcement

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[27] MARK RICHARDSON, MARINE CONSERVATION INST., PROTECTING AMERICA'S PACIFIC MARINE MONUMENTS: A REVIEW OF THREATS AND LAW ENFORCEMENT ISSUES (2012), *available at* https://marineconservation.org/media/filer_public/2012/11/08/pacific_islands_enforcement_final_case_studyfull_version.pdf (last visited June 25, 2020).
[28] *Id.*
[29] *Id.*; Northeast Canyons and Seamounts Proclamation, *supra* note 9.

necessary for proper management. Most MNMs are in the U.S. Exclusive Economic Zone (EEZ), which extends 200 nautical miles from the U.S. coastline, a large area to manage with existing limited resources.[30] For instance, Papahānaumokuākea MNM is 582,578 square miles of land and sea around Hawai'i.[31] Management of the Pacific MNMs poses a great challenge, as the MNMs are remote and do not have collaborative coordination for management strategies, and budgets are limited.[32]

B. Enforcement

Documenting the harmful activities discussed above, such as illegal fishing, pollution, etc., is the first step to managing the valuable resources found in a MNM, and effectively enforcing them is the next. In order to effectively patrol for these activities, federal law enforcement must have clear and enforceable regulations, surveillance and monitoring systems, a system of public outreach, and a way to collaborate on solutions for these issues with local management.[33]

Frequently asked questions of the Papahānaumokuākea draft management plan address concerns about how state and federal agencies would work together to ensure that monument regulations are enforced. In response to these concerns, there is mention of an Enforcement Action Plan as a part of the MNM's management plan, which has a goal of creating cooperative agreements. This would apply to federal and state law enforcement officers as they enforce regulations and assist in enforcing the variety of federal and state statutes that apply within the Papahānaumokuākea MNM.[34] In addition to the Papahānaumokuākea's Enforcement Action Plan, enforcement activities are included within the Managing Human Uses Action Plan, the Midway Atoll Visitor Services Plan, and USFWS compatibility determinations in order to put an emphasis on enforcement.[35]

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[30] *What is the EEZ?*, NAT'L. OCEAN SERV., https://oceanservice.noaa.gov/facts/eez.html (last visited June 25, 2020).
[31] *About Papahānaumokuākea*, PAPAHĀNAUMOKUĀKEA MARINE NAT'L. MONUMENT, https://www.papahanaumokuakea.gov/new-about/ (last visited June 25, 2020).
[32] Richardson, *supra* note 27.
[33] *Id.*
[34] *Frequently Asked Questions & Answers on the Draft Monument Management Plan*, PAPAHĀNAUMOKUĀKEA MARINE NAT'L. MONUMENT, https://www.papahanaumokuakea.gov/management/mp_faq.html (last visited June 25, 2020).
[35] *Id.*

As stated in the Antiquities Act, the amount of land reserved for national monuments shall be within "the limits of which in all cases shall be confined to the smallest area compatible with proper care and management of the objects to be protected."[36] MNMs can be expanded and decreased as this Act gives the President discretion in determining necessary acreage to ensure proper protection of resources within designated monuments.[37] While expanded areas protect more resources, enforcement becomes more challenging over a larger area. Some Presidents have pushed this clause to its limit, such as President Roosevelt determining a necessary 0.8 million-acre designation for the Grand Canyon, but the question remains: how large can a national monument become and still receive proper care and management, with a potentially far offshore location? In response to critics' assertions that the authority to modify the size of monuments is in violation of the Antiquities Act, Congress asserted that the President's authority to restrict the size of monuments may be necessary, as the withdrawal of land may be essential to preserve the integrity of protected resources.[38] MNMs, after all, are the largest protected ocean areas in the world.[39] It is easier to enforce laws over a smaller area, and therefore, the size of MNMs must be carefully considered against the resources within their boundaries.

[36] 54 U.S.C. 320301(b).
[37] Vincent, *supra* note 6.
[38] *Id.*
[39] *Id.*; 54 U.S.C. 320301.

C. Versatility

Another challenge in managing MNMs is ensuring adaptable measures are in place for climate change and its anticipated effects on MNMs. The Papahānaumokuākea MNM Natural Resource Science Plan (the Science Plan), which is part of the monument's management plan, helps to address and manage major threats and considers the effects of climate change, including sea-level rise and ocean acidification.[40] The purpose of reflecting the current understanding of climate change throughout the Science Plan is to support ecosystem resilience.[41] A similar, more generalized science plan should be a guideline for all newly and previously designated MNMs.

V. STAKEHOLDERS

Stakeholders of MNMs include the general public, fishermen, enforcement and protection agencies, and scientists. While their intentions and risks of losses vary, they all must collaborate for effective MNM management.

A. General Public

Stakeholders of the general public include conservationists, community members, and local businesses. During the designation process of the Mariana Trench MNM, for example, various opinions were expressed by the public. Some felt there was not enough local-level involvement, and others complained about the lack of negotiations and transparency.[42] Even monument advocates felt that the Commonwealth of Northern Mariana Islands government was trying to control the designation process without public input.[43]

B. Fishermen

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[40] PAPAHĀNAUMOKUĀKEA MARINE NAT'L. MONUMENT, NATURAL RESOURCES SCIENCE PLAN (2011), available at https://nmspapahanaumokuakea.blob.core.windows.net/papahanaumokuakea-prod/media/archive/pdf/nrsc_plan.pdf (last visited June 25, 2020) [hereinafter Science Plan].
[41] *Id.*
[42] Laurie Richmond et al., *Local Participation and Large Marine Protected Areas: Lessons from a U.S. Marine National Monument,* 252 J. OF ENVTL. MGMT. 109624 (2019), *available at* https://reader.elsevier.com/reader/sd/pii/S0301479719313428?token=CB73BAF76133C6DB5F16E39C22DC0530DDE55910EBB1A78156A366ECEEABA0695EBACB3AEC02FF64234492E2FDCDBEB4 (last visited June 25, 2020).
[43] *Id.*

Fishermen have an interest in ocean management and are experts in the knowledge of fisheries and fishery areas. Many fishermen are against MNMs further restricting their fishing in previously accessible areas and argue that the MSA provides an adequate plan for sustainable fisheries before MNM designations.[44] One goal of MNM management is to protect fish stocks, which would produce a more sustainable long-term fisheries supply, but fishermen can lose immediate access to fishing in known, highly productive areas upon MNM designation. In addition to commercial and recreational fishermen, there is a history of traditional, indigenous fishing in MNMs, notably, near the Northern Mariana Islands. For this reason, it is important for fishermen to communicate with other stakeholders during the management plan development process.[45]

C. Enforcement and Protection Agencies

Federal agency stakeholders include NOAA, USCG, USFWS, and other administrative officials. NOAA's Office of Law Enforcement includes managing fisheries, governing the high seas, and maintaining vessel tracking systems to ensure compliance by the U.S. fishing fleet. The NOAA Office of General Counsel, Enforcement Section administers civil penalty cases, sanctions, and forfeitures for violations of fishery and other maritime laws.[46] The USCG has a maritime law enforcement program, which is highly valuable to MNMs. Their "Living Marine Resources" mission focuses on enforcing fisheries laws and other legislation, protecting marine species, and protecting the U.S. EEZ from foreign fishing vessels.[47] The USFWS has the authority to protect national monuments under the Antiquities Act as well as to carry out natural resource law enforcement; their Office of Law Enforcement protects against the illegal trade of wildlife.[48] International fisheries management authorities and other state and federal agencies are also valuable in enforcing laws in MNMs.[49]

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[44] *House Fishes for Improvements to Magnuson-Stevens Act*, CONSORTIUM FOR OCEAN LEADERSHIP, http://oceanleadership.org/house-fishes-improvements-magnuson-stevens-act/ (last visited June 25, 2020).

[45] Laurie Richmond & Dawn Kotowicz, *Equity and Access in Marine Protected Areas: The History and Future of 'traditional Indigenous Fishing' in the Marianas Trench Marine National Monument,* 59 Applied Geography 117 (2015), available at https://www.sciencedirect.com/science/article/abs/pii/S0143622814002628 (last visited June 25, 2020).

[46] Richardson, *supra* note 27.

[47] *Id.*

[48] *Id.*; *See Office of Law Enforcement*, U.S. FISH & WILDLIFE SERV., https://www.fws.gov/le/ (last visited June 25, 2020).

[49] Richardson, *supra* note 27.

D. Scientists

Stakeholders also include the administrative officials and scientists who produce social, economic, and environmental data related to resources found within an MNM. Frequently updated research and data from the newest technologies is important to keep management practices at their highest capabilities. Scientists benefit from conducting research in areas with concentrated, valuable resources. By studying and collecting data from valuable resources, more effective management plans can be suggested based on the best available data. Permitting scientific research in MNMs is valuable as it allows for reliable existing environment updates for effective Environmental Assessments.[50]

VI. ENVIRONMENTAL CONSEQUENCES

If all activities were authorized in MNMs, what would be the purpose of the designation? If an area is designated as a national monument under the Antiquities Act, resource regulation is warranted. In order to protect resources, monitoring and research must be allowed, and other activities must be restricted. Three different levels of management options exist for MNMs: completely restricting activities in designated MNMs, restricting and managing certain activities, and not restricting any activities in MNMs at all.

A. Full Restriction

Full restriction of activities in MNMs means that valuable resources would no longer be directly influenced by humans within the boundaries of the MNM. However, the environmental consequences of restricting all activity and human interactions with MNMs include the lack of invasive species control and marine debris removal management, and no research to determine the effect of permitting activities on that monument's resources.[51] By not allowing any human interaction, we would not be able to improve marine resource health or study their ecological role in the environment. This would not be an effective management strategy.

B. Semi-restricted Management Plan

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[50] *Id.*; Richmond et al., *supra* note 42.
[51] *Frequently Asked Questions & Answers on the Draft Monument Management Plan*, *supra* note 34.

In the Environmental Assessment for Papahānaumokuākea MNM, environmental consequences are analyzed with respect to implementing management measures to conserve the natural resources of the monument. Overall, the Environmental Assessment concluded that by implementing a management plan, there would either be beneficial or no effects to resources of the monument as opposed to not having a management plan in place. Any negative impacts would be short-term and temporary during restoration, protection, and enhancement. So, any impacts on the environment in this MNM would be beneficial in the long term.[52] A semi-restrictive management plan would be an effective MNM resource management strategy for future MNMs in a universal management plan.

C. Full Authorization of Activities

If full authorization of activities in MNM existed, then the resources would not be protected. Full allowance of activities in MNMs would not comply with the Antiquities Act as this would not allow for "…proper care and management of the objects to be protected."[53] Without fishing restrictions in MNMs, for example, fishermen would seek out these highly productive fishing grounds. This would contribute to overfishing in areas otherwise designated to protect valuable resources; these resources would be over-extracted and overused. Furthermore, if other activities such as anchoring were permitted, corals would be destroyed.[54] It is evident that these environmental consequences cannot be avoided without regulation in some form.

VII. ECONOMIC CONSEQUENCES

Economic consequences of not having a MNM management plan with pre-determined, standard restrictions consist of potential long-term and widespread fishery stock depletion. Under President Trump, the current administration aims to open MNMs to commercial fishing in order to increase the

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[52] PAPAHĀNAUMOKUĀKEA MARINE NAT'L MONUMENT, DRAFT MONUMENT MANAGEMENT PLAN ENVIRONMENTAL ASSESSMENT (2008), *available at* https://nmspapahanaumokuakea.blob.core.windows.net/papahanaumokuakea-prod/media/archive/new-about/management/pdfs/dmmp_vol2_web.pdf (last visited June 26, 2020) [hereinafter Environmental Assessment].

[53] 54 U.S.C. 320301(b).

[54] Rebecca L. Flynn & Graham E. Forrester, *Boat Anchoring Contributes Substantially to Coral Reef Degradation in the British Virgin Islands*, PEERJ VOL. 7:E7010 (2019), https://doi.org/10.7717/peerj.7010 (last visited June 29, 2020).

seafood trade market.[55] However, decreasing fishing regulations, potentially causing overfishing in MPAs, would only further harm the quality and quantity of commercially fished seafood. Protecting these resources with improved sustainable fishery guidelines in MNM management plans would help to improve and sustain U.S. fisheries in the long-term.[56]

Commercial fishermen may be negatively impacted in the short-term by being barred to fish in known, highly productive areas;[57] however, some studies conclude that MPAs benefit from adjacent fisheries in the long-term because spawning aggregations are increased in protected areas, allowing for fish population growth opportunity. Fish that have the opportunity for growth in protected areas will eventually spill over to less productive areas, benefitting fisheries.[58] Thus, supporting effective and enforced management plans for MNMs are beneficial to commercial fisheries.

As stated in Richardson, "[t]he economic development and food security of many Pacific Island nations are tightly linked to the sustainability of their marine resources."[59] MNMs are recognized for their productive waters, such as the Pacific Islands MNM which is situated in a fish-reliant region.[60] Tightening restrictions on fishing in these areas would have socioeconomic consequences for nearby communities that utilize these fishing grounds. While environmental groups focus on limiting resource extraction in these areas, these fishing restrictions would have significant economic and cultural impacts.[61]

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[55] Alexandra Carter & Miriam Goldstein, *The Trump Administration's New Attack on Marine Monuments,* CTR. FOR AMERICAN PROGRESS, Sept. 17, 2018, https://www.americanprogress.org/issues/green/news/2018/09/17/458223/trump-administrations-new-attack-marine-monuments/ (last visited June 29, 2020).

[56] *Id.*

[57] A.D. Rijnsdorp et al., *Effort Allocation of the Dutch Beam Trawl Fleet in Response to a Temporarily Closed Area in the North Sea,* No. 01 INT'L COUNCIL FOR THE EXPLORATION OF THE SEA 1 (2001), *available at* http://www.ices.dk/sites/pub/CM%20Doccuments/2001/N/N0101.pdf (last visited June 29, 2020).

[58] NAT'L MARINE PROTECTED AREAS CTR., MPA SCIENCE BRIEF: WHAT DOES THE SCIENCE SAY? DO "NO-TAKE" MARINE RESERVES BENEFIT ADJACENT FISHERIES? (2019), *available at* https://nmsmarineprotectedareas.blob.core.windows.net/marineprotectedareas-prod/media/archive/pdf/helpful-resources/do_no_take_reserves_benefit_adjacent_fisheries.pdf (last visited June 29, 2020).

[59] Richardson, *supra* note 27, at 39.

[60] *Marine National Monuments in the Pacific*, *supra* note 4.

[61] J. Broder, *Bush to Protect Vast New Pacific Tracts,* N.Y. Times, Jan. 6, 2009, https://www.nytimes.com/2009/01/06/world/americas/06iht-06oceans.19111530.html (last visited June 29, 2020); Richmond & Kotowicz, *supra* note 45.

VIII. ADAPTIVE STRATEGIES

The President has the authority under the Antiquities Act to:

> declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated on the lands owned or controlled by the Government of the United States to be national monuments, and may reserve as a part thereof parcels of land, the limits of which in all cases shall be confined to the smallest area compatible with the proper care and management of the objects to be protected.[62]

This authority includes creating national monument resource management plans, and it is recommended that these plans are required as part of their designation, whether it be through a new provision, or amendment to existing one. The Antiquities Act was designed to protect federal lands and resources without a large delay for ordinary legislation and regulation.[63] While some individual proclamations restrict harmful activities in MNMs, a set of general restrictions for all MNMs based on existing, successful management plans and enhanced capabilities for the USCG to monitor and enforce them would help to strengthen the conservation of marine resources in an Antiquities Act amendment.

A. Existing Recommendations

Policy recommendations from the Marine Conservation Institute include: establishing fishery regulations, particularly prohibiting commercial fishing in monuments so that NOAA and the USCG can more easily monitor for illegal fishing; partnering with scientific agencies to examine illegal fishery activity data; increasing reports of illegal activity; and establishing a formal task force for managing MNMs.[64] In order to implement these recommendations successfully, MNM stakeholders must work together to establish effective management strategies. Luckily, there are many successful, existing policies that can be used as models to create an amendment to the Antiquities Act to improve MNM management.

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[62] 54 U.S.C. 320301(b).
[63] Vincent, *supra* note 6.
[64] Richardson, *supra* note 27.

B. Recommendations Based on Current Plans

A progressive improvement would be to incorporate an overall MNM baseline management plan, which could be introduced as an Antiquities Act amendment. Using the successes of the following existing policies, such as the Papahānaumokuākea Management, Science, and Enforcement Plans, the NMSA, and MSA policy, a modeled baseline for these plans can be created. Petitions exist to introduce similar legislation,[65] but they should be introduced with reference to existing policies and management plans and consider Marine Conservation Institute policy recommendations.

Amending the Antiquities Act with a standard MNM management plan that would incorporate aspects of other successful policies and plans prior to the time of MNM designation would allow for immediate and effective resource protection of MNMs, just as the Antiquities Act intends for all national monuments. Designation of an area by means of the NMSA on the other hand, does not allow for as timely baseline protections to be applied when warranted. It would be helpful to include marine-based monument-specific management as the Antiquities Act did not consider marine resources when first enacted.

i. Papahānaumokuākea MNM Management Plan

The Papahānaumokuākea MNM management plan includes: guiding principles and coordinated management; legal and political guidelines for the establishment of the monument; the vision, mission, principles, regulations, and zoning to manage human activities and threats; goals to guide implementation of action plans and priority management needs; and concepts and direction for moving towards a coordinated ecosystem approach to management.[66] These components should be incorporated into an overall plan for all MNMs as this plan should be a model for a MNM-specific management plan.

ii. Papahānaumokuākea Science Plan

The Papahānaumokuākea MNM Science Plan helps to address and manage major threats and considers the effects of climate change in order to support ecosystem resilience.[67] Components of the Science Plan, including

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[65] *Tell Congress: Defend Marine National Monuments*, OCEANA, https://act.oceana.org/page/62902/action/1?locale=en-US (last visited July 1, 2020).
[66] Environmental Assessment, *supra* note 52.
[67] Science Plan, *supra* note 40.

detecting and managing the effects of climate change including sea-level rise and ocean acidification, should be incorporated into a more generalized science plan for all future and previously designated MNMs for more effective management. This would help to establish effective guidelines for all MNMs upon designation.

iii. Papahānaumokuākea Enforcement Action Plan

The Papahānaumokuākea Enforcement Action Plan exists to achieve compliance with all regulations within the monument. This plan outlines shared and coordinated responsibilities among enforcement agencies, including the USCG, and identifies both barriers to and opportunities for effective law enforcement. Components of the Enforcement Action Plan can be incorporated into a more generalized science plan for all newly and previously designated MNMs for more effective management.[68] Better enforcement plans, for example, would consist of more USCG personnel designated for monitoring MNMs. This amendment would add specific marine-resource protections and specific offshore enforcement plans to the Antiquities Act. This would be helpful because it would establish a set of baseline restrictions necessary to protect sensitive marine resources, and it would be applicable to all MNMs.

iv. The National Marine Sanctuaries Act

Similar to the NMSA, a bill should be introduced that would make it unlawful to harm, take, harass, etc. any resources that are not protected under existing regulations (such as fish, coral, sediment, etc.) in MNM protected areas when designated under the Antiquities Act. As an alternative, the NMSA could be amended to include MNMs, as they have overlapping protection needs. Like the Antiquities Act, the NMSA permits the designation of areas with historical, scientific, and cultural significance. However, the NMSA is more specific to the marine environment, but it does not afford quick protections by Presidential Proclamation as the Antiquities Act does. The NMSA is considered the primary legislation for protecting marine areas, and therefore, its management strategies should be strongly considered in the development of an Antiquities Act amendment for an overall MNM management plan.[69] This should include representative regulatory prohibitions such as those stated in Office of National Marine Sanctuaries Regulations (15 CFR Part 922):

1. Discharging material or other matter into the sanctuary;
2. Disturbance of, construction on or alteration of the seabed;
3. Disturbance of cultural resources; and

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[68] PAPAHĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT, MANAGEMENT PLAN (2008), *available at* https://nmspapahanaumokuakea.blob.core.windows.net/papahanaumokuakea-prod/media/archive/new-about/management/pdfs/vol1_mmp08.pdf (last visited July 2, 2020).
[69] *See Legislation*, NAT'L MARINE SANCTUARIES, https://sanctuaries.noaa.gov/about/legislation/ (last visited July 2, 2020).

4. Exploring for, developing or producing oil, gas or minerals….[70]

v. MSA policy

The MSA's key objectives are to: "prevent overfishing, rebuild overfished stocks, increase long-term economic and social benefits, and ensure a safe and sustainable supply of seafood."[71] The MSA focuses on: maintaining sustainable fisheries by setting national standard guidelines for fishery management plans; taking fish habitat into consideration in fisheries management; establishing annual catch limits; increasing the role of science in management plans; and increasing cooperation in addressing illegal, unregulated, and unreported finishing.[72] By improving fishery sustainability, marine ecosystems are improved as a result. Therefore, components of MSA policy should be incorporated into an overall plan for all MNMs.

IX. CONCLUSION

MNMs have management plans to protect their valuable resources. When efficient management plans are created and proper enforcement methods exist, it is apparent, based on existing policies, that MNMs can be more effectively managed. A set of baseline standards for MNM management plans and a set of guidelines for creating and enforcing monument-specific plans should be implemented to ensure proper care and management of these unique areas, as established by the Antiquities Act. The successes of existing MNM management plans, such as the Papahānaumokuākea Enforcement and Science Plans, the NMSA, and MSA policy means that successful guidelines based on these plans can be created. The amendment would ensure that at-risk natural resources receive the quick protections intended by the Antiquities Act, while also ensuring that the management plan safeguards the valuable resources unique to MNMs. In the context of public lands policy, many public lands designations today are valued for their protection of resources. Federally-managed lands provide for a balance of activities influencing the local environment, such as allowing

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[70] *Regulations*, NAT'L MARINE SANCTUARIES, https://sanctuaries.noaa.gov/protect/regulations/ (last visited July 2, 2020).
[71] *Laws & Policies*, NOAA FISHERIES, https://www.fisheries.noaa.gov/topic/laws-policies (last visited July 2, 2020).
[72] *See National Standards Guidelines*, NOAA FISHERIES, https://www.fisheries.noaa.gov/national/laws-and-policies/national-standard-guidelines (last visited July 2, 2020).

recreational activities while also limiting harmful commercial activities.[73] MNMs, as a relatively new type of public land, are created with the purpose of protecting marine resources in vast scientifically and ecologically valuable submerged areas. Expanding national monument designations from terrestrial lands to large, offshore, submerged lands is significant, as resource extraction (e.g., fishing) is an increasingly over-utilized commercial industry that poses detrimental effects to marine resources. Overall, MNM management is not clearly established. As MNM designation provides an expedited method of protection through a Presidential Proclamation, it is important that management plans with proper enforcement and protection guidelines exist for newly designated MNMs from the start.

[73] Ross Gorte, *The Original Purpose of Federal Lands*, HEADWATERS ECONOMICS, May 7, 2019, *available at* https://headwaterseconomics.org/public-lands/papl-gorte/ (last visited July 2, 2020).

Appendix A: Acronyms and Abbreviations

Acronyms and Abbreviations	*Full Phrase*
FR	Federal Register
MNM	Marine National Monument(s)
MPA	Marine Protected Area(s)
MSA	Magnuson-Stevens Fishery Conservation and Management Act
the "Science Plan"	Natural Resource Science Plan
NMSA	the National Marine Sanctuaries Act
NOAA	the National Oceanic and Atmospheric Administration
the "Secretaries"	The Secretary of Commerce (NOAA) and the Secretary of the Interior (USFWS)
U.S.	United States
USCG	United States Coast Guard
USFWS	the United States Fish and Wildlife Service
U.S.C.	United States Code