**FINAL**
**Amendment 3 to the Fishery Ecosystem Plan for the Mariana Archipelago**

**Amendment 2 to the Fishery Ecosystem Plan for the Pacific Remote Island Areas**

**Amendment 3 to the Fishery Ecosystem Plan for American Samoa**

**Amendment 6 to the Fishery Ecosystem Plan for Pelagic Fisheries of the Western Pacific**

**Fishery Management in the Marianas Trench, Pacific Remote Islands, and Rose Atoll Marine National Monuments**

**including an**
**Environmental Assessment and Regulatory Impact Review**

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# Abstract

Presidential Proclamations 8335, 8336 and 8337, dated January 6, 2009, established the Marianas Trench, Pacific Remote Islands, and Rose Atoll Marine National Monuments, respectively. Among other provisions, the Proclamations define Monument boundaries, prohibit commercial fishing, and describe the management of fishery resources. The Proclamations direct the Secretary of Commerce, in consultation with the Secretary of the Interior, to take action under the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA) to regulate fisheries and ensure proper care and management of the Monuments. The Western Pacific Fishery Management Council (Council) recommended incorporating certain fishery management measures into the western Pacific Pelagics, American Samoa, Pacific Remote Island Areas, and the Mariana Islands fishery ecosystem plans (FEPs), and recommended that the Secretary of Commerce establish certain provisions relating to non-commercial fishing practices. Consistent with the Proclamations, the Council would amend the FEPs to do the following:

- Codify the boundaries of the monuments and their various management units.
- Prohibit commercial fishing in the Pacific Remote Islands and Rose Atoll Monuments, and in the Islands Unit of the Marianas Trench Monument.
- Establish management measures for non-commercial and recreational fishing in the monuments to include the following:
    - Require Federal permits and reporting for non-commercial and recreational charter fishing to aid in the monitoring of fishing activities.
    - Allow customary exchange in non-commercial fisheries in the Marianas Trench Monument Islands Unit and Rose Atoll Monuments to help preserve traditional, indigenous, and cultural fishing practices, on a sustainable basis.
    - Define customary exchange as the non-market exchange of marine resources between fishermen and community residents, including family and friends of community residents, for goods, and/or services for cultural, social, or religious reasons. This may include cost recovery through monetary reimbursements and other means for actual trip expenses, including but not limited to ice, bait, food, or fuel, that may be necessary to participate in fisheries in the western Pacific.
    - Limit permit eligibility for non-commercial fishing to community residents, as identified in the fishery ecosystem plans -- specifically, American Samoa, Guam and the CNMI are fishing communities -- and limit permit eligibility for recreational charters to businesses of local fishing communities for the Rose Atoll Monument and Marianas Trench Monument Islands Unit.
    - Prohibit all fishing within 12 nm of islands in the Pacific Remote Islands Monument, subject to U.S. Fish & Wildlife Service authority to allow non-commercial fishing in consultation with NMFS and the Council.
    - Prohibit all fishing within 12 nm around Rose Atoll. The Council and NMFS would review this regulation after three years.
- Prohibit the conduct of commercial fishing outside a monument and non-commercial fishing within the monument during the same trip.

The Council and NMFS do not expect the proposed fishery management measures to result in a large change to the low level of fishing and access that may be occurring in the Monuments because they are so remote from populated areas. The foreseen low level of permitted non-commercial fishing is not expected to have adverse effects on target, non-target, or bycatch stocks, or on protected species. The opportunity for members of fishing communities in American Samoa, Guam, the Commonwealth of the Northern Mariana Islands (CNMI), and Hawaii to continue to fish in these remote areas, and (for Guam, the CNMI and American Samoa), the opportunity for residents to continue to catch and share fish from these areas with their communities would help to maintain traditional customs, and is consistent with the intent of the Proclamations. Permits and logbooks would help fishery managers to monitor fishing in the Monuments.

The Council and NMFS prepared this FEP amendment, which includes an Environmental Assessment (EA) and Regulatory Impact Review (RIR). This document serves as the basis for a determination by NMFS on whether or not to prepare an environmental impact statement. If approved by the Secretary of Commerce, the document also informs NMFS in its development of regulations that would implement the selected action. NMFS solicited public comment on the draft FEP amendment, and a summary of the public involvement on the action is included in Sections 1.5. and 1.6.

**List of Acronyms/Abbreviations**

| | |
|---|---|
| CNMI | Commonwealth of the Northern Mariana Islands |
| CPUE | Catch per unit of effort |
| Council | Western Pacific Fishery Management Council |
| DOC | Department of Commerce |
| DOI | Department of the Interior |
| EA | Environmental Assessment |
| EEZ | United States Exclusive Economic Zone (except where noted) |
| EFH | Essential Fish Habitat |
| ESA | Endangered Species Act |
| fm | Fathom(s) |
| FAD | Fish aggregation device |
| FEP | Fishery Ecosystem Plan |
| FMP | Fishery Management Plan |
| FR | Federal Register |
| HAPC | Habitat Areas of Particular Concern |
| lb | Pound(s) |
| LVPA | Large vessel prohibited area(s) |
| MMPA | Marine Mammal Protection Act |
| Monument | Marine National Monument |
| MSFCMA | Magnuson-Stevens Fishery Conservation and Management Act |
| mt | Metric ton(s) |
| nm | Nautical mile(s) |
| NMFS | National Marine Fisheries Service |
| NEPA | National Environmental Policy Act |
| NOAA | National Oceanic and Atmospheric Administration |
| PIFSC | Pacific Islands Fisheries Science Center |
| PIRO | Pacific Islands Regional Office |
| PRI | Pacific Remote Islands (Monument) |
| PRIA | Pacific Remote Island Areas (U.S. geographic area) |
| SSC | Scientific and Statistical Committee (of the Council) |
| USFWS | U.S. Fish and Wildlife Service |
| USCG | U.S. Coast Guard |
| WCPFC | Western and Central Pacific Fisheries Commission |
| WCPO | Western and Central Pacific Ocean |
| WPFMC | Western Pacific Fishery Management Council |

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# 1 Introduction

## 1.1 Monument Proclamations Overview

In January 2009, under the authority of the Antiquities Act of 1906 (16 U.S.C. 431), President George W. Bush established three marine national monuments (Monuments) in the western Pacific, as follows:

- Proclamation 8335 of January 6, 2009: Establishment of the Marianas Trench Marine National Monument (74 FR 1557, January 12, 2009);
- Proclamation 8336 of January 6, 2009: Establishment of the Pacific Remote Islands Marine National Monument (74 FR 1565, January 12, 2009); and
- Proclamation 8337 of January 6, 2009: Establishment of the Rose Atoll Marine National Monument (74 FR 1577, January 12, 2009).

The Proclamations declare that "it is in the public interest to preserve the lands, submerged lands and waters of, and marine environment [of the Monuments] for the care and management of the historic and scientific objects therein." The Proclamations provide an overview of the resources of the Monuments, establish non-discretionary (required) provisions regarding conservation and management of Monument resources, and provide direction to the Secretaries of the Interior and Commerce for resource management at each Monument. In general, the Proclamations provide that the Secretary of the Interior, in consultation with the Secretary of Commerce, is responsible for management of the Monuments, and further provide that the Secretary of Commerce has primary responsibility for management of the Monuments with respect to fishery-related activities. For the specific requirements on the Secretaries of the Interior's and Commerce's management roles and the management of the marine resources within the Monuments described in the Proclamations, please refer to Appendix B (the Proclamations) attached at the end of this document.

## 1.2 Monument Areas Overview

Monument areas in the western Pacific are depicted in Figure 1 and include the Rose Atoll, Marianas Trench and Pacific Remote Islands Monuments which were designated in 2009. The Papāhanaumokuākea Monument in the Northwestern Hawaiian Islands was established in 2006 and is not part of the current action.

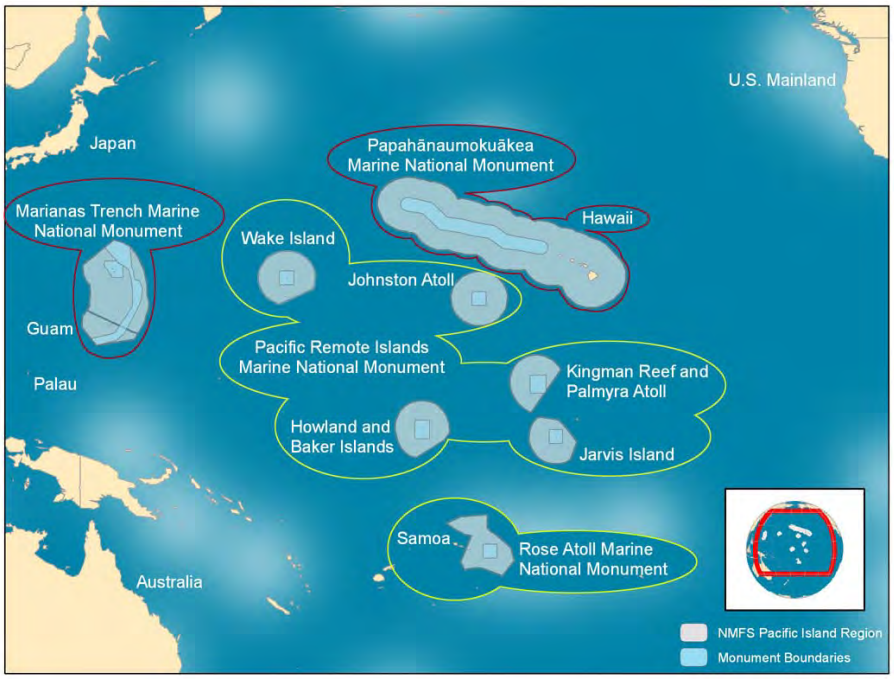


Figure 1.General location of marine national monuments in the western Pacific.
Source: NMFS PIRO 2012

A brief summary of the Monument areas and management requirements follows.

*Marianas Trench Marine National Monument*

Established under Proclamation 8335, the Marianas Trench Marine National Monument includes certain waters and submerged lands around the three northernmost islands (Uracas or Farallon de Pajaros, Maug, and Asuncion) of the Northern Mariana Islands which comprise the "Islands Unit." The Marianas Trench Monument also includes the submerged lands of designated volcanic sites (the "Volcanic Unit"), and the Marianas Trench ("Trench Unit)." Proclamation 8335 requires the Secretary of Commerce, in consultation with the Secretary of the Interior, to prohibit commercial fishing within the Islands Unit of the Monument[1] (which would include those volcanic units that are within the Islands Unit). It also specifies that in the Islands Unit, "sustenance, recreational, and traditional indigenous fishing shall be managed as a sustainable activity consistent with other applicable law and after due consideration with respect to traditional indigenous fishing of any determination by the Government of the Commonwealth of the Northern Mariana Islands."

With respect to the Marianas Trench Monument, the Secretaries of Commerce (through NMFS) and the Interior (through USFWS) are to manage the Monument pursuant to

[1]Proclamation 8335's prohibition on commercial fishing applies only to the Islands Unit of the Marianas Trench Monument.

applicable legal authorities and in consultation with the Secretary of Defense. The Secretary of the Interior has management responsibility for the Monument, in consultation with the Secretary of Commerce. The Secretary of Commerce has the primary management responsibility, in consultation with the Secretary of the Interior, with respect to fishery-related activities regulated under the MSFCMA and any other applicable authorities. The Secretary of Commerce, in accordance with the MSFCMA has the authority to manage fishery resources of the nation within the EEZ.

The Proclamation provides for traditional access by indigenous persons, as identified by the Secretaries in consultation with the Government of the CNMI for culturally significant subsistence, cultural and religious uses within the monument.

*Pacific Remote Islands Marine National Monument*

The Pacific Remote Islands Marine National Monument (Proclamation 8336) comprises the waters and submerged and emergent lands of Wake Island, Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, and Palmyra Atoll (the Pacific Remote Islands), seaward to a distance approximately 50 nm from the mean low water line around each island, reef, and atoll. Proclamation 8336 requires the Secretaries of Commerce and Interior to prohibit commercial fishing within Pacific Remote Island (PRI) Monument waters. In the Pacific Remote Islands Monument, the Secretary of the Interior, in consultation with the Secretary of Commerce, has responsibility for management of the Monument seaward to 12 nm from the mean low water lines of each island reef and atoll, pursuant to applicable legal authorities. The Secretary of Defense is to continue to manage Wake Island, according to the terms and conditions of an Agreement between the Secretary of the Interior and Secretary of the Air Force, unless and until such Agreement is terminated. The Secretary of Commerce, in consultation with the Secretary of the Interior, has primary responsibility for management of the Monument seaward of the 12 nm of the mean low water lines around the islands, reefs and atolls, with respect to fishery-related activities regulated under the MSFCMA and other applicable authorities.

The Proclamation allows noncommercial fishing to be permitted, including the continuation of noncommercial fishing opportunities allowed by the USFWS at Palmyra Atoll unless the Secretary of the Interior determined such fishing would not be compatible with the purposes of the Palmyra Atoll National Wildlife Refuge. Recreational fishing is to be managed as a sustainable activity in certain areas of the Monuments in consultation with NMFS and the Council.

*Rose Atoll Marine National Monument*

Proclamation 8337 created the Rose Atoll Marine National Monument, located in American Samoa, which includes the emergent and submerged lands and waters of the atoll, seaward of mean low water to a distance defined by a boundary that is approximately 50 nm from shore. The Proclamation requires the Secretaries of Commerce and the Interior to prohibit commercial fishing in Monument waters. In the

Rose Atoll Monument, the Secretary of the Interior has management responsibility for the Monument, including Rose Atoll National Wildlife Refuge (NWR), in consultation with the Secretary of Commerce, except that the Secretary of Commerce, through the National Oceanic and Atmospheric Administration, shall have primary management responsibility regarding the management of the marine areas of the monument seaward of mean low water, with respect to fishery-related activities regulated pursuant to the MSFCMA and other applicable authorities. The Secretary of the Interior manages the Rose Atoll NWR in cooperation with the Government of American Samoa.

The Proclamation allows the Secretaries to permit noncommercial and sustenance fishing and, after consultation with the Government of American Samoa, traditional indigenous fishing within the Monument. Recreational fishing shall be managed as a sustainable activity.

In addition to the Monument, NOAA, in cooperation with the American Samoa Government, recently expanded the Fagatele Bay National Marine Sanctuary (renamed the National Marine Sanctuaries of American Samoa) to include the submerged lands and waters from the low water mark around Rose Atoll to the outer boundary of Monument, including the Vailuluu seamount, which lies seaward of the northwestern edge of the Monument boundary (77 FR 43942, July 26, 2012). The sanctuary does not regulate fishing activities around Rose Atoll or Vailuluu seamount collectively known as the Muliava Unit.

*Additional management provisions*

For all three monuments, the Proclamations require management provisions to accord with international law. No restrictions shall apply to or be enforced against a person who is not a citizen, national, or resident alien of the United States (including foreign flag vessels) unless in accordance with international law. Because international law upholds the laws of the U.S. and its territories, the regulations would apply to all people.

All three Proclamations also allow scientific exploration and research to be conducted by or for the Secretaries of Commerce and the Interior, activities of the Armed Forces, and allow activities for the purposes of emergencies, national security, and law enforcement.

## 1.3 Purpose and Need

The Presidential Proclamations that establish the Rose Atoll, the Pacific Remote Islands (PRI), and Marianas Trench Monuments contain specific requirements related to the management of fishing in Monument areas. Specifically, the Proclamations direct the Secretaries of Commerce and the Interior to prohibit commercial fishing within the Rose Atoll, PRI, and Islands Unit of the Marianas Trench, and further authorize the Secretaries to permit non-commercial fishing on a sustainable basis and consistent with the overall conservation objectives of the Monument. The purpose of this action is to amend the FEPs and promulgate regulations consistent with the fishery-related requirements of the Proclamations.

This action is necessary in order to administer the Monument areas consistent with the conservation and management directives of the Proclamations. This action would codify the Monuments' boundaries and prohibit commercial fishing in designated Monument areas, while authorizing non-commercial fishing (including traditional indigenous, sustenance, recreational, and charter recreational fishing) at Rose Atoll, the PRI, and in the Marianas Trench Islands Unit.

## 1.4 Proposed Action

Consistent with the Proclamations and based on recommendations from the Council, under the Proposed Action, NMFS would implement new requirements as follows:

- Codify the boundaries of the monuments and their various management units.
- Prohibit commercial fishing in the Pacific Remote Islands and Rose Atoll Monuments, and in the Islands Unit of the Marianas Trench Monument.
- Establish management measures for non-commercial and recreational fishing in the monuments to include the following:
    - Require Federal permits and reporting for non-commercial and recreational charter fishing to aid in the monitoring of fishing activities.
    - Allow customary exchange in non-commercial fisheries in the Marianas Trench Monument Islands Unit and Rose Atoll Monuments to help preserve traditional, indigenous, and cultural fishing practices, on a sustainable basis.
    - Define customary exchange as the non-market exchange of marine resources between fishermen and community residents, including family and friends of community residents, for goods, and/or services for cultural, social, or religious reasons. This may include cost recovery through monetary reimbursements and other means for actual trip expenses, including but not limited to ice, bait, food, or fuel, that may be necessary to participate in fisheries in the western Pacific.
    - Limit permit eligibility for non-commercial fishing to community residents, as identified in the fishery ecosystem plans -- specifically, American Samoa, Guam and the CNMI are fishing communities -- and limit permit eligibility for recreational charters to businesses of local fishing communities for the Rose Atoll Monument and Marianas Trench Monument Islands Unit.
    - Prohibit all fishing within 12 nm of islands in the Pacific Remote Islands Monument, subject to U.S. Fish & Wildlife Service authority to allow non-commercial fishing in consultation with NMFS and the Council.
    - Prohibit all fishing within 12 nm around Rose Atoll. The Council and NMFS would review this regulation after three years.
- Prohibit the conduct of commercial fishing outside a monument and non-commercial fishing within the monument during the same trip.

## 1.5 Public review and comments

The amendment document contains a discussion of the purpose and need, description of the alternatives, and potential impacts of the alternatives, and draft proposed regulations necessary to implement the action.

On February 1, 2013, NMFS made the draft amendment available for public review and comment (78 FR 7385). The public was also invited to comment on the proposed rule (78 FR 12015; February 8, 2013). The document was available at www.regulations.gov, or by contacting the Council or NMFS official at the above addresses. NMFS received several comment on the draft amendment. NMFS made minor changes to the draft proposed regulations and will respond to comments in the final rule. No comment addressed the environmental assessment.

## 1.6 Initial Actions – Development of Council Recommendations and Previous Public Involvement

At its 144th meeting (March 2009; American Samoa), the Council was asked by NMFS to begin developing fishing regulations for the Monuments pursuant to the Proclamation. The Council responded by directing its staff to prepare a draft FEP amendment document for fisheries management in the Monuments for Council consideration and action.

The Council also directed staff to work with NMFS, USFWS, local governments and several SSC members on potential regulatory definitions. The Council's Executive Director subsequently sent letters to the Governors of American Samoa, CNMI and Guam requesting their assistance in this effort and to provide existing local definitions of the fishing activities under consideration. In 2009, after coordinating as directed, the Council's staff developed an Options Paper which was discussed at the meetings of the Council's Marianas Advisory Panels, Plan Teams and Regional Ecosystem Advisory Committees (REACs) which also occurred in June 2009.

In his response letter dated May 6, 2009, Governor Togiola Tulafono of American Samoa requested that the Council work with Council member and Director of American Samoa's Department of Marine and Wildlife Resources, Mr. Ray Tulafono, on the development of definitions for the Rose Atoll Monument. By letter of July 9, 2009, Governor Benigno Fitial of the CNMI provided his Government's working definitions for "sustenance", "subsistence," "recreational," and "traditional indigenous fishing" and requested that the Council work with Dr. Ike De la Cruz (then CNMI Secretary for the Department of Land and Natural Resources) and Mr. Jack Ogomuro (the Council's Island Coordinator for the CNMI) regarding questions or clarification of the CNMI's potential definitions.

At its 145th public meeting held July 2009 in Kona, the Council reviewed available information, heard recommendations from its advisory bodies, took public comments and made the following recommendations:

1. Recommends as a preliminarily preferred alternative a modified version of Option 1 of the single definition for fishing which would define permitted fishing in the PRI Monument, Rose Atoll Monument and Islands Unit portion of the Marianas Trench Monument as follows: Fishing conducted for sustenance; recreational; non-commercial; traditional; indigenous; culturally significant subsistence, cultural, or religious uses; or for other culturally significant events, with sales or barter/trade of catch allowed to cover costs but not to provide profits to participants.

2. Recommends as a preliminarily preferred alternative that Federal and/or local permits and catch reports be required for all fishing activities in the Monuments (Option 2).

3. Directs Council staff to prepare a draft amendment(s) for consideration at its October meeting that includes analysis of the following additional alternatives to define permitted fishing in the Islands Unit portion of the Marianas Trench Monument and Rose Atoll Monument as follows:

    a. Sustenance/Subsistence Fishing – Sustainable fishing practices or methods which perpetuates the traditional or customary practices of the indigenous people; such as but not limited to fiestas, funerals, or other culturally significant events.

    b. Community – Participants in an environment or a common location with intent, belief, resources, preference, needs, risks and a number of other conditions which are present and that affect the identity, the degree of cohesiveness and survivability in order to perpetuate a culture, customary or traditional standard.

    c. Sustenance/Subsistence Fisher – A fisher who provides harvested marine life for the benefit of the community within the guidelines set forth or defined under fishing. The harvested marine life could be bartered or sold in order to provide the necessaries of life. Any income derived from such practice after expenses shall not exceed the national poverty level as identified for the previous calendar year or a level determined by jurisdiction.

4. Recommends staff investigate the availability of financial compensation for fishermen displaced by the proclamation of the Marianas Trench Marine National Monument.

At its 147th public meeting, held in March 2010 in Saipan and Guam, the Council reviewed available information, heard recommendations from its advisory bodies, considered public comments and made several recommendations that maintained, revised, or replaced its previous recommendations:

1. Define "non-commercial fishing" as “fishing that does not meet the MSFCMA definition of commercial fishing and includes, but is not limited to, sustenance, subsistence, traditional indigenous, and recreational fishing.”

2. Define “recreational fishing” as “fishing conducted for sport or pleasure,” and recommends that recreational fishing be allowed in the Marine National Monuments, but the catch cannot be sold, bartered, or traded nor included in customary exchange.

3. Recommends that charter for-hire fishing be allowed, but that the catch cannot be marketed for sale, barter, or trade, and the customary exchange of the catch is prohibited.

4. Recommends that separate permit and logbook requirements be established for for-hire fishing in the Marine National Monuments to monitor the sustainability of this type of fishing as well as potentially limit the number of participants.

5. Define "customary exchange" as “the non-market exchange of marine resources between fishers and community residents for goods, services and/or social support for cultural, social, or religious reasons, and may include cost recovery through monetary reimbursements and other means for actual trip expenses (e.g., ice, bait, food, fuel) that may be necessary to participate in fisheries in the Western Pacific Region.”

6. Recommends non-commercial fishing be allowed in the PRIMNM.

7. Recommends recreational fishing be allowed in the PRIMNM.

8. Recommends no-take marine protected areas from 0-12 nm be established around Baker, Howland, and Jarvis Islands, Kingman Reef, and Johnston, Palmyra Atolls, and Wake Island.

9. Recommends existing federal permit and logbook requirements be maintained for fishery participants targeting pelagic, bottomfish, crustaceans, and coral reef management unit species in the PRIMNM, and that the U.S. FWS should, for purposes of consistency, adopt or continue these permit and reporting requirements for areas under their jurisdiction.

10. Recommends NMFS and USFWS work on a comprehensive outreach, education, and compliance program for potential fishermen, visitors, and researchers that spend time in the PRIMNM.

11. Recommends authorizing fishing conducted for sustenance, subsistence, or traditional indigenous purposes or uses as allowed for under customary exchange of fish harvested in the Rose Atoll Marine National Monument.

12. Recommends a no-take area from 0-12 nm around Rose Atoll with the Council to review the no-take regulations after three-years.
13. Recommends permits and catch reporting be required for all fishing in the Rose Atoll MNM and that the American Samoa Department of Marine and Wildlife Resources be included in the administration and monitoring of the permits and logbooks.

14. Recommends the American Samoa Department of Marine and Wildlife Resources be exempted from permit requirements related to scientific research or exploration in the Rose Atoll MNM.

15. Recommends authorizing fishing conducted for sustenance, subsistence, or traditional indigenous purposes or uses as allowed for under customary exchange of fish harvested in the Islands Unit of the Marianas Marine National Monument.

16. Recommends permits and logbook reporting be required for all fishing in the Islands Unit of the Marianas Trench Marine National Monument and that CNMI DLNR Division of Fish and Wildlife be included in the administration and monitoring of the permits and logbooks.

17. Recommends CNMI DLNR Division of Fish and Wildlife be exempted from permit requirements related to scientific research or exploration in the Marianas Trench Marine National Monument.

18. Recommends staff prepare an options paper regarding regulating commercial fishing in the Volcanic and Trench Units of the Monument as well as other fisheries related issues identified in the Proclamation.

19. Recommends the Marianas Trench Marine National Monument Advisory Council include representation from Guam as an observer to the Advisory Council.

At its 148th meeting, held July 2010 in Honolulu, the Council made several additional recommendations related to the administration of non-commercial and recreational for hire charter fishing permits and recommended the prohibition of commercial fishing in all three of the Monuments, in accordance with the Proclamations. These recommendations include the following:

1. Recommends commercial fishing be prohibited within the Islands Unit of the Marianas Trench MNM.

2. Recommends that eligibility for non-commercial fishing permits for the Islands Unit of the Marianas Trench MNM be limited to residents of the Guam and Northern Mariana Islands Fishing Communities (as that term is defined under MSFCMA).

3. Recommends that eligibility for recreational charter for-hire fishing permits for the Islands Unit of the Marianas Trench MNM be limited to owners/operators of a charter business legally established in Guam or Northern Mariana Islands Fishing Communities.

4. Recommends non-commercial fishing permits be required for the owner and operator of a vessel fishing in the Islands Unit of the Marianas Trench MNM and not all fishing participants on that vessel and further that the valid permit must be carried on

board the vessel.

5. Recommends fishery participants conducting customary exchange not be required to report monetary reimbursements nor trip expenses due to anticipated behavioral modifications that would impact cultural practices related to the motivations of customary exchange.

6. Recommends customary exchange of fish harvested within the Islands Unit of the Marianas Trench MNM be allowed to include family and friends of residents of Guam and Northern Mariana Islands Fishing Communities.

7. Recommends all non-commercial permits for the Islands Unit of the Marianas Trench MNM be valid for one year after issuance.

8. Recommends the permitted operator of a vessel fishing in the Island Unit of the Marianas Trench MNM be required to fill out the logbook and that the both the permitted owner and operator are required to ensure that catch logbooks for all fishing conducted on the vessel is submitted within 30 days to NMFS/CNMI DLNR.

9. Recommends commercial fishing be prohibited within the Rose Atoll MNM.

10. Recommends that eligibility for non-commercial fishing permits be limited to residents of the American Samoa Fishing Community (as that term is defined under MSFCMA).

11. Recommends that eligibility for recreational charter for-hire fishing permits be limited to owners and operators of a charter business legally established in the American Samoa Fishing Community.

12. Recommends non-commercial fishing permits be required for the owner and operator of a vessel fishing in the Rose Atoll MNM and not all fishing participants on that vessel and further that the valid permit must be carried on board the vessel.

13. Recommends fishery participants conducting customary exchange not be required to report monetary reimbursements nor trip expenses due to anticipated behavioral modifications that would impact cultural practices related to the motivations of customary exchange.

14. Recommends customary exchange of fish harvested within the Rose Atoll MNM be allowed to include family and friends of residents of American Samoa Fishing Community

15. Recommends all non-commercial permits for the Rose Atoll MNM be valid for one year after issuance.

16. Recommends the permitted operator of a vessel fishing in the Rose Atoll MNM be required to fill out the logbook and that the both the permitted owner and operator are required to ensure that catch logbooks for all fishing conducted on the vessel is submitted within 30 days to NMFS/AS DMWR.

17. Recommends commercial fishing be prohibited within PRI MNM.

The Council provided a draft FEP amendment document including a preliminary draft EA to NMFS for an internal review in August 2010. In September 2011, the Council received a letter from Mr. Michael Tosatto, NMFS PIRO Regional Administrator, conveying NMFS' concerns that while the 2010 draft document provided a basis for identifying customary exchange as important to traditional indigenous fishing in the region, it did not identify adequate safeguards to ensure that the practice of customary exchange would not obscure the line between commercial and non-commercial fishing, and, therefore, impermissibly allow commercial fishing to occur in violation of the Proclamations. The letter recommended that the Council consider revising the definition of customary exchange to exclude, or clearly limit, cost recovery of trip expenses, and to consider other management measures, such as imposing bag limits for non-commercial fishing that would provide additional safeguards. NMFS also suggested that the Council clarify the definition of "non-commercial fishing" to specify that traditional indigenous fishing is limited to traditionally and culturally significant fishing practices in existence at the time the Monuments were established. NMFS found that the recommended no-fishing zones within 12 nm of the Pacific Remote Island Areas, as drafted at the time, were potentially inconsistent with the Proclamations, to the extent that they would prohibit non-commercial fishing that is currently allowed by the USFWS in Refuge areas of the Monument. NMFS recommended the Council make it clear that the no-take areas in the Pacific Remote Islands Monument would be subject to fishing allowed by USFWS in consultation with NOAA.

At its 152nd meeting held October 2011 in Honolulu, to address NMFS's suggestions, the Council directed its staff to develop a range of options related to issues identified by NMFS for consideration at the 153rd meeting in March 2012. In addition, the Council endorsed its Scientific and Statistical Committee's (SSC) recommendation to form a small working group to further consider issues associated with the definition of customary exchange. The Council's staff developed a range of options to be considered by the Council at its 153rd meeting (WPFMC 2012c). At its 153rd meeting, after additional deliberations on a range of new options for managing fishing in the Monuments, the Council recommended that its existing recommendations be maintained and not modified in relation to the following topics: a) limits on cash reimbursements under customary exchange practices, b) bag limits for allowed fishing activities, and c) definitional timeframe for traditional indigenous fishing.

In regards to topic (a) above, the Council found that limiting cash reimbursements under customary exchange could change fishermen's behavior and could be difficult to enforce as was the case for similar limits under federal Alaska subsistence halibut regulations.

In regards to topic (b) above, after a thorough evaluation of bag limits in terms of potential estimates of MSY and annual fisheries production, the Council recommended that the anticipated level of non-commercial fishing in the Monuments would take place at levels that would not compromise the sustainability of any fish stocks occurring in the Monuments, and further, the Council's recommendation to require permits and logbook reporting for all non-commercial fishing activities allowed in the Monuments would allow NMFS, USFWS, and the Council the opportunity to closely monitor the amount of fishing and subsequent harvests in the Monuments and be able to ensure that fishing is sustainable and does not cross the line into commercial fishing. Finally, the Council found that the existing information on traditional indigenous fishing practices showed that such fishing trips are likely to be limited to a small number. Permit, residency, and monitoring mechanisms would ensure that customary exchange does not result in commercial fishing, and logbooks would provide the information needed to determine whether the management program needs to be modified. In order to ensure that the fishery is adequately monitored, the Council recommended that fishery statistics derived from fishing in the Monuments as well as other relevant information be reviewed on an annual basis so the Council could take action to refine fishery management measures as necessary in a timely manner.

In regards to topic (c) above, the Council found that Proclamations 8335 and 8337 do not limit traditional indigenous fishing to a particular timeframe, and further, to do so would be inappropriate, culturally insensitive, and representative of a poor understanding of cultural change and continuity in the U.S. Pacific Islands.

As an additional safeguard, at its 153rd public meeting, the Council recommended that fishing vessels be prohibited from conducting commercial fishing outside the Monument(s) and non-commercial fishing in the Monument(s) on the same trip, in order to enhance enforcement capability. Finally, consistent with Mr. Tosatto's September 2011 letter to the Council, the Council recommended that the no-take/no fishing zones within the Pacific Remote Islands Monument may be subject to USFWS authorization within 0-12 nm for non-commercial fishing in consultation with NMFS and the Council.

## 1.7 Rationale for Council Recommendations

The following provides the Council's cumulative recommendations related to the Monuments, which have been derived from the Council's decision making process on these issues since 2009:

Regarding General Definitions for the Monuments, the Council:

1. Defines "customary exchange" for non-commercial fishing in the Monuments as, "the non-market exchange of marine resources between fishers and community residents for goods and/or services for cultural, social, or religious reasons and may include cost recovery through monetary reimbursements and other means for actual trip expenses (e.g. ice, bait, food, fuel) that may be necessary to participate in fisheries in the Western Pacific Region."

Reasons for this recommendation: The majority of participants of small-scale fisheries in the Western Pacific Region do not go fishing for a single purpose, but do so to satisfy multiple motivations such as for pleasure, to make money, and to feed their families. Some sell their catch to recover expenses. Common motivations for fishermen in the Western Pacific Region are to provide food for family, friends, and their community, or to exchange fish for goods, services and/or social support for cultural, social, and religious reasons. It is well established that fishing contributes to the cultural integrity and social cohesion of Pacific island communities. These exchanges are quite different from strictly monetary exchange and even trade and barter in that there is not a calculated equivalency or an expectation of immediate return. As such, these exchanges have been called "generalized reciprocity" and they encompass the giving and sharing of resources that establish, support and reinforce social relations between family, friends, created kin[2], and relations between chiefs and followers in important cultural and ceremonial contexts.

The sharing and giving of fish often defines the giver as a good and generous person, and may gain them social recognition as well as contribute to the maintenance of individual and cultural identity. Among the indigenous communities of the Western Pacific, giving fish on ceremonial occasions is critically important to participating in and contributing to the maintenance of the social fabric and cultural continuity of those communities. Cash, through reimbursements, may also enter into customary exchange as a contribution that offsets some of the expenditures that may have become necessary to obtain the resources needed for participating in customary exchange. When cash enters customary exchange, equivalencies may or may not be calculated, but the intent is to participate in production and exchange for social benefits to the community, not to gain immediate economic return or profit. The Council recommended defining customary exchange to ensure that fish harvested in the Monuments can be shared within fishing communities of American Samoa and the Marianas Archipelago. There are no recognized fishing communities in the PRI.

At its 153rd Council meeting held in Saipan and Guam, the Council considered limiting cash reimbursements under customary exchange practices, but found that such limits of cash reimbursements could change fishermen's behavior and could be difficult to enforce (as was the case that occurred under a different federal action regulating subsistence halibut fishing). For this reason, and because the Council is recommending permits and logbooks be required for all fishing in the Monuments, the Council did not add cash limits to the proposed action.

2. Defines "non-commercial fishing" in the Monuments as" fishing that does not meet the MSFCMA definition of commercial fishing[3] and includes, but is not limited to, sustenance, subsistence, traditional indigenous and recreational fishing."

[2] "Created kin" refers to family members created through informal adoption (a process termed "hanai" in Hawaii). It can also refer to "foster" relatives.

Reasons for this recommendation: The MSFCMA only defines four types of fishing: 1) commercial fishing[3], 2) recreational fishing[4], 3) charter fishing[5] and 4) large-scale drift-net fishing[6]. The definition of recreational fishing is often used in a general context to include all fishing whereby the catch does not enter into commerce, or is not sold, traded, or bartered. It is clear that fishermen in the Western Pacific Region, especially many indigenous fishermen in the region, do not fish for the sole purpose of sport or pleasure, but fish to feed their families, communities, and for cultural/social reasons. For this project, the Council has grouped these types of non-commercial fishing together with recreational fishing under the general term "non- commercial."

3. Defines "recreational fishing" in the Monuments as, "fishing conducted for sport or pleasure including for-hire charter fishing" and recommends that recreational fishing be allowed in the Marine National Monuments, but the catch from charter for-hire fishing cannot be sold, bartered, or traded nor included in customary exchange.

Reasons for this recommendation: The Council believes it important to make a distinction between the recreational component of non-commercial fishing (fishing for sport or pleasure) and other types of non-commercial fishing. Many fishermen in the Western Pacific Region do not go fishing to "play with fish," but do so for social/cultural/religious motivations related to customary exchange. Since charter fishing brings a sporting motivation and business aspect to what is otherwise considered to be non-commercial fishing, the Council believes it is appropriate to disallow the sale, barter, trade, or customary exchange of charter catches.

Regarding the Marianas Trench Monument, the Council:

1. Recommends that commercial fishing be prohibited within the Islands Unit of the Marianas Trench Monument in compliance with the Proclamation.

Reasons for this recommendation: The Council recommended prohibiting commercial fishing in the Islands Unit of the Marianas Trench MNM to comply with the Proclamation.

2. Recommends that non-commercial fishing (see definition above) be allowed within the Islands Unit of the Marianas Marine National Monument.

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[3] Commercial fishing means fishing in which the fish harvested, either in whole or in part, are intended to enter commerce or enter commerce through sale, barter or trade. (16 U.S.C. §1802(3)(4))
[4] Recreational fishing means fishing for sport or pleasure." (16 U.S.C. §1802(3)(37))
[5] Charter fishing means fishing from a vessel carrying a passenger for hire (as defined in Section 2101(21a) of title 46, USC) who is engaged in recreational fishing. (16 U.S.C. §1802(3)(3))
[6] Large-scale driftnet fishing means a method of fishing in which a gillnet composed of a panel or panels off webbing, or a series of such gillnets, with a total length of two and one-half kilometers or more is placed in the water and allowed to drift with the currents and winds for the purpose of entangling fish in the webbing. (16 U.S.C §1802(3)(25))

Reasons for this recommendation: The Council recommends authorizing non-commercial fishing in the Islands Unit of the Marianas Trench MNM, which includes sustenance, subsistence, traditional indigenous, and recreational fishing. The Council chose not to make specific definitions for these types of fishing activities for multiple reasons: 1) due to the long distance of the Islands Unit from Guam, Saipan, Rota, and Tinian, there has been low level or non-existent fishing in the Islands Unit area in recent years; 2) future non-commercial fishing is expected to be low or non-existent in the area; and 3) a general definition that includes all of these types of non-commercial fishing is less burdensome on potential fishery participants in that it would not force fishery participants to fit into certain categories of fishing activities. Furthermore, a general definition will allow for easier administration of permit and logbook requirements. By grouping traditional indigenous fishing under "non-commercial fishing" the Council does not mean to lessen the importance of traditional indigenous fishing and maintains its Community Development Program and Community Demonstration Project Program which has specific provisions for traditional indigenous fishing and objectives of providing opportunities for indigenous fishing communities to participate in regulated fisheries in the Western Pacific Region.

3. Recommends that the customary exchange of fish by non-commercial fishermen be allowed, except for the fish harvested by recreational fishermen whose primary motivation is to fish for sport or pleasure.

Reasons for this recommendation: The Council believes that fishing for customary exchange is an important motivation for many fishermen in the Western Pacific Region and that community fish sharing supports cultural and social frameworks in Pacific Island communities. The Council recognized that the motivations for recreational fishing, including charter for-hire fishing, are different than the purposes of customary exchange, and therefore, recommended that customary exchange not be authorized for recreational fishing.

4. Recommends fishery participants conducting customary exchange not be required to report monetary reimbursements nor trip expenses due to anticipated behavioral modifications that would impact cultural practices related to the motivations of customary exchange.

Reasons for this recommendation: As noted earlier, customary exchange is important for community members to participate in and it contributes to the maintenance of the social fabric and cultural continuity of Pacific Island communities. While cash reimbursements are not a primary motivation for engaging in customary exchange, cash does sometimes enter into the customary exchange system as a contribution that offsets some of the expenditures that may have become necessary to obtain the fish catch. When cash enters customary exchange, equivalencies are generally not calculated, but the intent is to participate in production and exchange for social benefits to the community, not to gain immediate economic return or profit. The Council believes that requiring fishery participants to record their trip expenditures or cash reimbursements runs counter to the

cultural values and benefits of sharing fish and could change the motivation and/or practice of customary exchange.

5. Recommends customary exchange of fish harvested within the Islands Unit of the Marianas Trench Monument be allowed to include family and friends of residents of Guam and CNMI Fishing Communities.

Reasons for this recommendation: The Council made this recommendation to highlight the fact that it is often the case that friends and family that live outside the community return for visits or for extended periods of stay. Many residents of Guam and CNMI fishing communities have family members and relatives who are residents elsewhere but return regularly to participate in cultural and family events. To exclude these people in the sharing of fish resources harvested from the Islands Unit would go against the purposes of customary exchange and would not be in line with Chamorro and Carolinian culture and tradition.

6. Recommends that non-commercial fishing permits be required for the owner and operator of a vessel fishing in the Islands Unit of the Marianas Trench Monument and that the valid permit must be carried on board the vessel.

Reasons for this recommendation: The Council recommended requiring permits for the owner and operator of a vessel fishing in the Islands Unit and not all fishing participants to reduce the burden on fishery participants, as well as administrative costs. For the type of fishing expected to occur in the Islands Unit, and the fact that individual bag limits are unnecessary, it is unreasonable to require all fishing participants on a vessel to get a permit, for which there may be an application cost, as well as time needed to fill out and administer the permits.

7. Recommends that the permitted operator of a vessel fishing in the Islands Unit of the Marianas Trench Monument be required to fill out a fishing logbook and that the both the permitted owner and operator are required to ensure that logbooks for all fishing conducted on the vessel used to fish in the Monument is submitted within 30 days to NMFS/CNMI Department of Land and Natural Resources.

Reasons for this recommendation: Requiring fishing logbooks is important and allows fishery managers to know what and how much is being caught and will help ensure that customary exchange does not cross into commercial fishing. Requiring that both the operator and owner of a vessel ensure that logbooks be submitted within 30 days helps to facilitate catch information being provided in a reasonable time frame, as well as would provide NMFS a greater ability to enforce this requirement.

8. Recommends that the CNMI Department of Land and Natural Resources be included in the administration and monitoring of the permits and logbooks.

Reasons for this recommendation: In accordance with Proclamation 8335, the Council believes that the CNMI Department of Land and Natural Resources' Division of Fish and

Wildlife (DFW) should play an integral role in the administration and monitoring of the permits and logbooks. Not only would this build administrative capacity within DFW as well as needed resources, but it also provides DFW with an important role in an otherwise completely federal initiative. DFW participation would be on a voluntary basis.

9. Recommends that eligibility for non-commercial fishing permits be limited to residents of Guam and CNMI fishing communities[7] only.

Reasons for this recommendation: The Council recognized that a general definition of non-commercial fishing could be interpreted as being not limiting enough in terms of regulating potential fishery participants. To manage non-commercial fishing in the Islands Unit, eligible permittees must be residents of either Guam or the CNMI fishing communities.

10. Recommends that separate permit and logbook requirements be established for recreational charter for-hire fishing to monitor the sustainability of this type of fishing as well as potentially limit the number of participants.

Reasons for this recommendation: Charter for-hire recreational fishing involves fishermen paying to recreationally fish. As this is a commercial venture for the proprietor of the charter business, there are significant incentives to catch fish for his/her customers. As indicated in the recommendation, the Council believes it is important to separate the permitting and logbook requirements for charter for-hire fishing so as to easily distinguish this type of fishing from the other permitted non-commercial fishing. This will help the Council, NMFS, and the DFW facilitate future management of the different types of fishing, as necessary. Availability of data that are linked to the specific fishing type is expected to improve management of the fishery resources and, in turn, result in improved sustainability of fish stocks.

11. Recommends that eligibility for recreational charter for-hire permits be limited to owners and operators of a charter business legally established in either the Guam or CNMI fishing community.

Reasons for this recommendation: Requiring that charter for-hire fishing operators have legally established businesses in Guam or the CNMI was recommended to ensure community participation in this activity and facilitate enforcement and management.

12. Recommends that all non-commercial permits be valid for one year after issuance.

Reasons for this recommendation: Making the permits valid for one year is consistent with other federal permits established under the Council's FEPs.

[7] 64 FR 19067, April 19, 1999.

13. Recommends that fishing vessels be prohibited from conducting commercial fishing outside the Marianas Trench Monument Islands Unit and non-commercial fishing in the Marianas Trench Monument Islands Unit on the same trip.

Reasons for this recommendation: This measure is needed to improve accountability, transparency and enforcement of resources taken from within the Monument area.

14. Recommends that the Marianas Trench Marine National Monument Advisory Council include representation from Guam as an observer.

Reasons for this recommendation: This is a non-regulatory recommendation. The Proclamation did not include a requirement to have a Guam representative on the Marianas Trench Marine National Monument Advisory Council even though portions of the Monument run adjacent to Guam in the EEZ. Recognizing that Guam and CNMI together make up the Marianas Archipelago, the Council has long included both areas together for the purposes of an ecosystem approach to fisheries management. To ensure representation by all affected governments, and to facilitate ecosystem management, the Council recommended that the Secretaries include representation from Guam on the Marianas Trench Marine National Monument Advisory Council.

Regarding the Pacific Remote Islands Monument, the Council:

1. Recommends that commercial fishing be prohibited in Pacific Remote Islands Monument in compliance with the Proclamation.

Reasons for this recommendation: The Council recommended prohibiting prohibit commercial fishing in the PRIMNM to comply with the Proclamation.

2. Recommends no-take/no-fishing marine protected areas from 0-12 nm be established around Baker, Howland and Jarvis Islands, Kingman Reef and Johnston, Palmyra and Wake atolls, subject to authorization of fishing by the U.S. Fish and Wildlife Service in consultation with NMFS and the Council.

Reasons for this recommendation: The Council recommended NMFS establish a 0-12 nm no-take/no-fishing zone around each island area of the PRIMNM to help protect the local coral reef ecosystem, local bottomfish stocks, and local pelagic stocks.

3. Recommends that non-commercial fishing be allowed in the Pacific Remote Islands Monument.

Reasons for this recommendation: Historically, non-commercial fishing in the Pacific Remote Islands Monument has been low or non-existent, with the exception of the sparsely inhabited areas such as Wake Island, Johnston Atoll and Palmyra Atoll. These three areas have experienced some low levels of non-commercial fishing.

4. Recommends that recreational charter for-hire fishing be allowed, but that the catch cannot be marketed for sale, barter, or trade and the customary exchange of the catch is prohibited.

Reasons for this recommendation: The only remaining inhabited areas of the PRIMNM are Palmyra Atoll and Wake Island. There is a potential for charter for-hire fishing in the inhabited areas that have infrastructure for such activities. This type of fishing is motivated by sport or pleasure, therefore, the Council recommends that fishing by recreational charter for-hire participants should not be associated with the purposes of customary exchange.

5. Recommends that separate permit and logbook requirements be established for recreational for-hire fishing to monitor the sustainability of this type of fishing as well as gauge the number of resource users for future management.

Reasons for this recommendation: Currently, there are no federal permits in the Western Pacific Region for charter for-hire fishing, so such permits would need to be created. The Council recommended that permit and logbook requirements be established for recreational fishing in order to monitor the level of fishing and its impacts to the sustainability of affected fish stocks. Within the recreational fishing category, "charter for-hire" fishing is one type that should be specifically identified for the purpose of recreational fishing management.

6. Recommends that existing federal permit and logbook requirements be maintained for fishery participants targeting pelagic species and that the U.S. FWS should, for purposes of consistency, adopt or continue these permit and reporting requirements for areas under their jurisdiction.

Reasons for this recommendation: There are currently seven federal permits that apply to fishing in the PRI MNM (squid fishing permit, general longline permit, bottomfish, coral reef, crustacean, precious coral, and a pelagic troll and handline fishing permit); however, given the Council's recommendation to prohibit fishing within 0-12 nm of each Pacific Remote Island unit, the only fishing that would likely occur would be non-commercial pelagic troll and handline fishing. There would also be a new requirement for a recreational charter for hire fishing permit (for hire charter) in the PRI Monument. The continued requirement for a permit would also allow NMFS and the Council to monitor non-commercial fishing in the PRI Monument.

7. Recommended NMFS and USFWS work on a comprehensive outreach, education and compliance program for potential fishermen, visitors and researchers that spend time in the Pacific Remote Islands Area Monument.

Reasons for this recommendation: This is a non-regulatory recommendation that recognizes that there are two sparsely inhabited islands (Wake Atoll and Palmyra Atoll) in the PRI Monument, and that other members of the potentially regulated community

involve potential fishermen, visitors, and researchers that originate from areas outside the PRI Monument.

8. Recommends that fishing vessels be prohibited from conducting commercial fishing outside the Pacific Remote Islands Monument and non-commercial fishing in the Pacific Remote Islands Monument on the same trip.

Reasons for this recommendation: This measure is needed to improve accountability, transparency and enforcement of fishing regulations in the Monument area.

Regarding the Rose Atoll Monument, the Council:

1. Recommends that commercial fishing be prohibited within the Rose Atoll Monument in compliance with the Proclamation.

Reasons for this recommendation: The Council agreed to prohibit commercial fishing in the Rose Atoll MNM to support NMFS and USFWS efforts to comply with the Proclamation.

2. Recommends a no-take/no-fishing area from 0-12 nm around Rose Atoll with the Council to review the no-take regulations after three years.

Reasons for this recommendation: The Council recommended establishing a 0-12 nm no-take/no-fishing zone around Rose Atoll to help protect the local coral reef ecosystem, local bottomfish stocks, and local pelagic skipjack stock. The Council will review this closed area after a three-year period, which will give NMFS time to conduct baseline resource surveys, as well as time for the Council to consider the potential impacts of the closure on residents of American Samoa's Manua Islands.

3. Recommends that non-commercial fishing (see definition above) be allowed seaward of the outer boundary of the 0-12 nm no-fishing zone within in the Rose Atoll Monument.

Reasons for this recommendation: The Council recommended to authorize non-commercial fishing in the Rose Atoll MNM, which includes sustenance, subsistence, traditional indigenous, and recreational fishing. The Council chose not to make specific definitions for these types of fishing activities for multiple reasons: 1) due to the distance to Rose Atoll from Tutuila and Manua Islands there has been low level or non-existent fishing in the Rose Atoll area in recent years; 2) future non-commercial fishing is expected to remain low or non-existent in the area; and 3) a general definition that includes all of these types of non-commercial fishing is less burdensome on potential fishery participants in that it would not force fishery participants to fit into a certain "box" of fishing activities. Furthermore, a general definition will allow for easier administration and enforcement pertaining to permit and logbook requirements. By grouping traditional indigenous fishing under "non-commercial fishing" the Council does not mean to lessen the importance of traditional indigenous fishing and maintains its

Community Development Program and Community Demonstration Project Program which has specific provisions for traditional indigenous fishing and objectives of providing opportunities for indigenous fishing communities to participate in regulated fisheries in the Western Pacific Region.

4. Recommends that the customary exchange of fish harvested by non-commercial fishermen be allowed, except for the fish harvested by recreational fishermen whose primary motivation is to fish for sport or pleasure.

Reasons for this recommendation: The Council believes that fishing for customary exchange is a primary motivation for many fishermen in the Western Pacific Region and that community fish sharing supports cultural and social frameworks in Pacific Island communities. The Council recognized that the motivations for recreational fishing, including charter for-hire fishing, are different than for the purposes of customary exchange, and therefore recommended that customary exchange should not be associated with recreational fishing.

5. Recommends fishery participants conducting customary exchange not be required to report monetary reimbursements nor trip expenses due to anticipated behavioral modifications that would impact cultural practices related to the motivations of customary exchange.

Reasons for this recommendation: As noted earlier, customary exchange is important to participating in and contributing to the maintenance of the social fabric and cultural continuity of Pacific Island communities. Cash reimbursement is not a motivator for customary exchange, but may also enter into exchange as a contribution that offsets some of the expenditures that may have become necessary to obtain the fish catch. When cash enters customary exchange, equivalencies are generally not calculated, but the intent is to participate in production and exchange for social benefits to the community, not to gain immediate economic return or profit. The Council believes that if fishery participants are required to record their trip expenditures or cash reimbursements that such calculations of equivalencies run counter to the cultural values and benefits of sharing fish and could change the motivation and/or practice of customary exchange.

6. Recommends that eligibility for non-commercial fishing permits be limited to residents of the American Samoa Fishing Community[8].

Reasons for this recommendation: The Council recognizes that a general definition of non-commercial fishing could be interpreted as being not limiting enough in terms of regulating potential fishery participants. To appropriately limit non-commercial fishing in the Rose Atoll Monument, eligible permittees must be residents of the American Samoa Fishing Community.

[8] The Council identified the islands of American Samoa as a single fishing community (64 FR 19067, April 19, 1999).

7. Recommends customary exchange of fish harvested within the Rose Atoll Monument be allowed to include family and friends of residents of American Samoa Fishing Community.

Reasons for this recommendation: The Council made this recommendation to highlight the fact that it is often the case that friends and family that live outside the community return for visits or for extended periods of stay. Many American Samoans have family members and relatives who are residents elsewhere but return regularly to participate in cultural and family events. To exclude these people in the sharing of fish resources harvested from the Monument would go against the purposes of customary exchange and would not be in line with American Samoan culture and tradition.

8. Recommends that non-commercial fishing permits be required for the owner and operator of a vessel fishing in the Rose Atoll Monument and that the valid permit must be carried on board the vessel.

Reasons for this recommendation: The Council recommended requiring permits for both the owner and operator of a vessel fishing in the Rose Atoll MNM but not for all fishing participants in order to reduce the burden on fishery participants, as well as to reduce administrative costs. For the type of fishing (e.g., pelagic trolling) expected to occur in the Rose Atoll MNM, and because individual bag limits are unnecessary, it is unreasonable to require all fishing participants on a vessel to get a permit, for which there may be an application cost, as well as time needed to fill out and administer the permits.

9. Recommends that the permitted operator of a vessel fishing in the Rose Atoll Monument be required to fill out a fishing logbook and that the both the permitted owner and operator are required to ensure that logbooks for all fishing conducted on the vessel used to fish in the Monument are submitted within 30 days to NMFS/AS DMWR.

Reasons for this recommendation: Requiring fishing logbooks is important for management purposes to know what is being caught and how much. Requiring that both the operator and owner of a vessel ensure that logbooks be submitted within 30 days helps facilitates that catch information is provided in a reasonable time frame, as well as provides NMFS a greater ability to enforce this requirement.

10. Recommends that the American Samoa Department of Marine and Wildlife Resources (DMWR) be included in the administration and monitoring of the permits and logbooks.

Reasons for this recommendation: The Council believes that DMWR should play an integral role in the administration and monitoring of the permits and logbooks. Not only does this build administrative capacity within DMWR as well as needed resources, but it also provides DMWR with an important role in otherwise a completely federal initiative.

11. Recommends that separate permit and logbook requirements be established for recreational for-hire fishing to monitor the sustainability of this type of fishing as well as gauge the number of resource users for future management.

Reasons for this recommendation: Charter for-hire recreational fishing involves fishermen paying to recreationally fish. As this is a commercial venture for the proprietor of the charter business, there are significant incentives to catch fish for his/her customers. As indicated in the recommendation, the Council believes it is important to separate the permitting and logbook requirements for charter for-hire fishing so as to easily distinguish this type of fishing from the other permitted non-commercial fishing, which facilitates the sustainability of this type of fishing as well as to assist the Council in the future if additional regulatory provisions are needed.

12. Recommends that eligibility for recreational charter for-hire fishing permits be limited to owners and operators of a charter business legally established in the American Samoa Fishing Community.

Reasons for this recommendation: Requiring that charter for-hire fishing operators have legally established businesses in American Samoa was recommended to ensure community participation in this activity and facilitate enforcement and management.

13. Recommends all non-commercial permits be valid for one year after issuance.

Reasons for this recommendation: Permits valid for one year is consistent with other federal permits required under the Council's FEPs.

14. Recommends that fishing vessels be prohibited from conducting commercial fishing outside the Rose Atoll Monument and non-commercial fishing in the Rose Atoll Monument on the same trip.

Reasons for this recommendation: This measure is needed to improve accountability, transparency and enforcement of fishing regulations in the Monument area.

## 1.8 Additional Information the Council Used to Develop Proposed Monument Fishing Management Recommendations Related to Commercial vs. Non-commercial Fishing in the Western Pacific Region

In American Samoa, Guam, Northern Mariana Islands and Hawaii, the distinction between fishing sectors is often not very clear, especially among small-boat pelagic fishermen. It is common for individual fishing trips to include subsistence, recreational, and even commercial elements. The sale of fish, when it does occur, is not typically driven by profit, however. Rather, it is usually opportunistic and in order to recoup a portion of a trip's expenses. Recouping trip expenses is one way of providing for continued participation in western Pacific fisheries. Such sale is informal and relatively minor, and is often dependent on whether first-order trip motivations, such as providing

fish for subsistence and cultural events, are met. Although the sale of any fish in commerce is considered commercial fishing under the MSFCMA, the Council has determined that it is important to understand the socio-cultural context of fishing in the Region before classifying fishermen as commercial or recreational. An overview of fishing in various areas affected by proposed Monument fishing regulations is provided below as background the Council used in developing the management recommendations.

Mariana Islands Archipelago- Guam

Fishing in Guam continues to be important not only in terms of contributing to the subsistence needs of the indigenous Chamorro population but also in preserving their history and identity. Fishing has assisted Chamorros and other Pacific Island immigrant groups (such as Carolinians) to maintain their connection to the sea and its resources, thus keeping alive what remains of the maritime attributes of their traditional culture.

High value is placed on sharing one's fish catch with relatives and friends. The social obligation to share one's fish catch also extends to part-time and full-time commercial fishermen (Amesbury et al., 1989). In a study conducted by Rubinstein (2001) in Guam, nearly all fishermen (96 %) reported that they share fish regularly, giving fish to family (36 %), friends (13 %) or both (47 %). A majority (53 %) said they did not give fish to people other than family and close friends; of those who did occasionally, the main recipients were church fiestas (32 %) and other church events or organizations (20 %). This pattern of distribution reflects Guam's long and well-entrenched Catholic tradition.

A 2005 survey of Guam households found that out of the fish consumed by households, a little more than half (51 %) was purchased at a store or restaurant and 9 % was purchased at a flea market or from a roadside stand. Nearly one-quarter (24 %) of the fish consumed was caught by the respondent or an immediate family member, and an additional 14 percent was caught by a friend or extended family member (van Beukering et al., 2007).

Given the small size of Guam, the dispersal of fishery participants and the extensive community networks for sharing locally caught fish, it is likely that the social benefits of fishing are experienced by most of the island's long-term residents. It is also likely that extensive social networks are created by or sustained through sharing of fish. Thus, fish play a role not only in providing protein but also in maintaining Chamorro cultural traditions and identity. For example, the people of Guam participate in many banquets throughout the year associated with neighborhood parties, wedding and baptismal parties, wakes and funerals. The village fiestas that follow the religious celebrations of village patron saints are especially important. All of these occasions require large quantities of fish and other traditional foods (Rubenstein, 2001). Sometimes fish are sold to earn money to buy gifts for friends and relatives on important Catholic religious occasions such as novenas, births and christenings, and other holidays (Amesbury et al., 1989). Such sales take place in a non-market environment, to friends, neighbors, and relatives, and the very personal nature of these transactions tends to restrain the asking price.

Mariana Islands Archipelago- CNMI

The CNMI small boat fleet and its characteristics were the focus of a recent study by Hospital and Beavers (2012). NOAA's Pacific Islands Fisheries Science Center conducted the Mariana Archipelago Cost-Earnings Survey during 2011 to better understand the economic, social, and behavioral characteristics of boat-based fishing in Guam and the CNMI. The data established important baselines for assessing the economic and social impacts of future management actions. Fishermen from Saipan, Tinian, and Rota completed surveys.

Twenty five percent of fishermen responding to the survey considered themselves to be commercial fishermen only (either part- or full-time), while the highest proportion described themselves as subsistence fishermen (40%). Over one-third described themselves as fitting more than one of the fishing categories , further emphasizing that multiple-motivations underpin fishing in the Mariana Islands (Hospital and Beavers, 2012).

A vast majority of pelagic fishermen (84%), bottomfish fishermen (89%), and reef fishermen (92%) said that the fish they caught were an important source of food for their or other families. Consistent with that result, on average, only a portion of catch (27%) was sold. The majority of their catch [from the previous 12 months of the date the survey was filled out] was consumed at home (30%) or given away to crew, family members or friends and neighbors (31%, or given to community events (7%). The survey also asked whether the fisherman felt respected as fishermen by members of the community. This question addresses the skills and social place of fishermen. Nearly half (47%) agreed that the community respected them; just 2% disagreed, while about a third were neutral and 15 percent said they didn't know (Hospital and Beavers, 2012).

The survey analysis also identified highliners (the fishermen reporting the largest catches over the past 12 months). This category of fisherman included those reporting catches of 500 lb or more of pelagic species, or 500 lb or more of bottomfish, or 250 lb or more of reef fish. As a result, 32 fishermen (34% of those surveyed) were identified as highliners for subsequent analyses. Of the highliners, 66% were Chamorro compared to 57% of the non-highliners. Highliners tended to be older, less likely to be employed full or part time (than other fishermen), more likely to be self-employed or retired, and less likely than others in the fishery to have attended college (Hospital and Beavers, 2012).

Highliners said that 40% of their personal income in the past 12 months had come from fishing, compared to just 18% for non-highliners. When asked what they did with their fish, highliners reported selling a higher proportion of their catch (46%) than did the non-highliners (17%). However, even the highliners, for whom the income from fishing was more important, reported that 19% of their catch was consumed at home, 24% was given away, and 8% was caught for fiestas or other community or cultural events. In addition, a high proportion of highliners (77%-81%) reported that the fish they caught was an important source of food for their families (although these proportions were even higher among the non-highliners) according to Hospital and Beavers (2012).

American Samoa Archipelago

Severance and Franco (1989) used photo-interviewing techniques to document the continuing importance of American Samoan ceremonial distribution of certain parts of culturally significant species in formalized, culturally scripted ways. *Atu* (skipjack tuna) and other large fish are expected at ceremonial events such as weddings, title investitures, etc. Members of a subsequent research team directly observed ceremonial distribution of *atu* in a village ceremony in 1996 (Severance, C., SSC member/University of Hawaii, pers. comm., 2012). Ceremonial distribution continues to contribute to the perpetuation of Samoan culture in the present (Severance, C., SSC member/University of Hawaii, pers. comm., 2012).

In 1996, Severance et al. surveyed 60 fishermen in American Samoa (estimated by DMWR staff to be over half of the known active fishermen at that time) and found a variety of culturally defined and named gifts of fish used to meet cultural and ceremonial needs and obligations through sales of fish at reduced prices. Thirty percent of those surveyed reported that half or more of their catch was sold as *fa'ataualofa* (to give or sell at a reduced price to friends or kinsmen as an expression of an ongoing sustained relationship). Forty-two percent reported that half or more of their catch was not sold. Of the unsold portion of the catch, thirty-five percent was reportedly contributed to birthdays, weddings and funerals and twenty-two percent to culturally significant holidays. The number of times fishermen reported contributing to *to'onai* (Sunday afternoon serving of village chiefs) ranged widely but averaged about 20 times per year. Twenty-two percent of respondents also reported that half or more of their trips in that year were made at the request of *matai* (village chief), while nineteen percent reported that half or more of the unsold portion of the catch was contributed to their *matai* as *tautua* (service). This percentage may be artificially low, since twenty-five percent of the fishermen surveyed held their own *matai* titles. While eighteen percent reported almost no contributions, thirty-two percent also reported contributing to *fa'alavelave* (obligation to contribute to an event on behalf of the *matai* and *aiga*) three or more times per year. Thirty-two percent reported giving away half or more of the unsold portion of their fish as *fesoasoani* (to help out: a less formal more individualized response to a less serious need than in the case of *fa'alavelave*) (Severance, C., SSC member/University of Hawaii, pers. comm., 2012).

These culturally labeled and defined patterns of sharing fish or selling at a reduced price strongly suggest that the motivations to fish are complex, and are certainly not commercially-profit oriented (at least not as a major factor in the decision of whether to go fishing). Participating in fishing and sharing portions of the catch in such culturally expected and prescribed ways are perceived as part of what it is to be Samoan. Members of the community who participate in the events and observe or sometimes share in the fish are also participating in being Samoan. Managing such events requires fish, and the younger Samoans who observe and participate, even if they don't fish, are learning the importance of *fa'asamoa* – the Samoan Way.

MSFCMA Definition of Commercial Fishing

The 2009 Proclamations that established the three Marine National Monuments direct the Secretary of Commerce to prohibit commercial fishing while allowing, on a sustainable basis, the continuation of non-commercial fishing practices that are sustainable and that are found to be compatible with the purposes of the Monuments. The Monuments were established under the authority of the Antiquities Act, which does not define the term "commercial fishing." The Council deliberated on what the Proclamations intended, in order to develop a prohibition on commercial fishing and managing non-commercial fishing.

The MSFCMA, defines commercial fishing as "fishing in which the fish harvested, either in whole or in part, are intended to enter commerce or enter commerce through sale, barter or trade" (16 U.S.C. § 1802 3.(4)). While this definition is a helpful starting point for the development of a management program for non-commercial fishing in the Monuments, it is not necessarily controlling of the decision concerning non-commercial fishing in the Monuments. Interpreting the commercial prohibition ban to apply to anyone who sells any amount of fish, no matter how minor, would clearly go beyond the President's direction to allow sustainable community-level traditional and indigenous fishing, which may involve some level of exchange or sale of fish. The opportunity for traditional indigenous fishermen to recoup some of their expenses was needed in order to allow and promote this type of fishing in the Monuments as directed by the President in the Rose Atoll and Marianas Trench Monuments. Therefore, for the purposes of implementing the Proclamations, the Council developed a distinction between commercial fishing in the Monuments and non-commercial fishing in the Monument that includes sustainable community-level traditional and indigenous fishing, as described in customary exchange.

Furthermore, allowing the possibility of traditional small-scale, exchange-based community fishing practices is not necessarily inconsistent with the MSFCMA definition of commercial fishing. As stated above, under MSFCMA, commercial fishing occurs when harvested fish enters commerce, or is intended to enter commerce, through sale, barter or trade. The definition of "commerce" does not necessarily prohibit the practice of small-scale expense fishing or the similar disposition of fish. Specifically, Webster's Online Dictionary defines the term "commerce" as "the exchange or buying and selling of commodities on a large-scale, involving transportation from place to place." Clearly, "commerce" emphasizes the exchange of merchandise on a large scale between different places and communities. Most sources relate "commerce" to trade and buying/selling between municipalities, regions, states, and/or countries. In this context, the term "commercial" connotes large-scale economic activity initiated by cash needs and profit motives. The MSFCMA, accordingly, does not preclude customary exchange.

Fish/Cash Exchanges not Always Commercial

Customary trade – the exchange of cash in a traditional context for subsistence-harvested fish and wildlife (USFWS, 2009) – as well as subsistence fishing with expense sales – are recognized by the State of Alaska and federal authorities as non-commercial activities. For example, the Alaska legislature has determined that the trade of subsistence-caught fish for limited cash exchange is a customary subsistence practice and has defined such trade as "the limited noncommercial exchange, for minimal amounts of cash…" (16.05.940(8)). Also in Alaska, for example, the Alaska National Interest Lands Conservation Act (16 U.S.C. 3111-3126), authorizes the Secretary of the Interior and the Secretary of Agriculture to jointly implement the Federal Subsistence Management Program. This program grants a preference for subsistence uses of fish and wildlife resources on federal public lands and waters in Alaska—an example being the Yukon Flats National Wildlife Refuge, which previously was a National Monument established by President Jimmy Carter.

NMFS has regulations for subsistence fishermen that participate in several fisheries including halibut and salmon. For example, Alaskan subsistence halibut fishermen are allowed to receive cash for their halibut as "customary trade" to offset their actual fishing expenses (e.g. fuel, bait, ice, food). The fish can only be exchanged for cash with someone living within their rural community or within 10 miles. Cash exchange is also permissible between members of Alaskan Native Tribes (if the halibut was caught by a member of such a Tribe) (74 FR 54932). When NMFS' Alaska subsistence halibut regulations were first promulgated (as recommended by the North Pacific Fishery Management Council), subsistence fishermen were allowed to sell halibut up to $400 annually for the purposes of "customary trade." In 2009, NMFS changed these regulations, based on recommendations from the NPFMC, to not allow the sale of any subsistence halibut, but allow the non-commercial exchange of cash and subsistence caught halibut for reimbursements for trip costs only. The current regulations provide no limit on the amount of subsistence halibut that can be exchanged for cash, but reimbursements can only be for actual trip costs. Stated reasons for the elimination of the $400 annual limit were that: a) the limit was regarded as monetary target that allowed the commercial sale of subsistence halibut and b) the enforceability of the limit was difficult as officers could not distinguish between sale and customary and traditional exchange for cash (73 FR 54932; September 24, 2008).

The experience of New Zealand Maori who are culturally associated with U.S. Pacific Islanders is relevant here to describe the impact of prohibitions on cultural exchange on members of a native community. After the development of a quota management system, the Customary Fisheries Regulations (1998) were imposed on Maori fishing communities, whereby under this program, one can only sell fish if one has quota. Hence these regulations include a strict separation of cash sales from "customary fishing" and further only allow customary fishing for meetings and funerals. Heavy fines are now sometimes imposed for what used to be culturally-based fish sales. These new regulations

have changed Maori behavior and limited an individual's ability to share fish at important community events (McCormack, 2010).

Generalized Reciprocity and Customary Exchange in the Western Pacific

As noted earlier, fishermen in the Western Pacific Region sometimes sell fish to cover trip expenses, but a primary motivation for fishing is to provide food for family and community and to share fish for social/cultural/religious reasons. The act of fish sharing in Pacific Island communities is well documented under the anthropological concept of "generalized reciprocity," whereby the giving and sharing of resources establish, support and reinforce social relations between family, friends, created kin and relations between chiefs and subjects in important cultural and ceremonial contexts (Severance et al. 2013). According to Dr. Craig Severance (UH-Hilo, SSC member, pers. comm., March 2012), reciprocity is a social norm characterized by a strong desire to "repay" a kindness. In this case, the sharing and giving of fish often defines the giver as a good and generous person and may gain them social recognition as well as contribute to the maintenance of individual and cultural identity. Generalized reciprocity is a subset of reciprocity in which the original kindness need not be repaid with a kindness of equal value, nor need it be done with any immediacy. Therefore, the kindnesses at the heart of these customary exchanges are quite different from strictly monetary exchange and even trade and barter (Severance et al., 2013).

Among the indigenous communities of the Western Pacific, giving fish on ceremonial occasions is critically important to participating in and contributing to the maintenance of the social fabric and cultural continuity of those communities. Cash reimbursements may also enter into customary exchange as a contribution that offsets some of the expenditures that may have become necessary to obtain the resources needed for participating in customary exchange. When cash enters customary exchange, equivalencies may or may not be calculated, and the intent is to participate in production and exchange for social benefits to the community, not to gain immediate economic return or profit (Severance et al., 2013).

### 1.8.1 Importance of Subsistence Fishing to Communities in the Western Pacific Region

While fisheries remain important aspects of community life in the U.S. Pacific Islands, the adoption of a modern, more western lifestyle has reduced the primary dependence of fishing as a means of obtaining food. Transoceanic shipping and large-scale food processing ensure that most individuals can easily access provisions such as boxed and canned goods. While this may be viewed by some as a positive development for local peoples, modernization has resulted in health issues associated with over-consumption of foods historically not found in local staples, as well as an erosion of culture. For example, the art of traditional fishing has been affected, and even lost to some degree.

Culture and fishing, however, remain central to community identity in the Western Pacific Region. While Western material goods are accessible to most, there are those for whom fishing still provides an important portion of their daily nutritional input. In

addition, fishing helps some community members maintain a strong cultural connection to their ocean environment through the harvesting and sharing of marine resources. This connection is important because it ensures that people remain familiar with ecosystem rhythms and cycles, which is important in island settings that are susceptible to typhoons, climate change and fluctuations and potential disruptions in the availability of food resources. Finally, fishing helps to maintain key social linkages and cultural protocols, through fish sharing and customary exchange such as the hierarchical distribution of community fish sharing.

Fishery resources, from traditional subsistence fishing in times past, to today's more modern boat-based fisheries, have always been an important component of island economies (Doulman and Kearney, 1991). Fishing also continues to contribute to the cultural integrity and social cohesion of Pacific island communities.
The continuing importance of subsistence activities to Native Hawaiians has been described by Davianna McGregor (2007). Although McGregor wrote primarily about Native Hawaiians, her words are relevant for many other indigenous groups and individuals in the Western Pacific Region.

*"Through subsistence, families attain essential resources to compensate for low incomes. They can also obtain food items, especially seafood that might be prohibitively expensive in a strict cash economy. If families on fixed incomes were required to purchase these items, they would probably opt for cheaper, less healthy food that would predispose them to health problems. In this respect, subsistence not only provides food, but also ensures a healthy diet.*

*Subsistence generally requires a great amount of physical exertion (e.g., fishing, diving, hunting), which is a valuable form of exercise and stress reduction and contributes to good physical and mental health. It is also a form of recreation that the whole family can share in. Family members of all ages contribute to different phases of subsistence, be it active hunting, fishing, gathering, or cleaning and preparing the food for eating. Older family members teach younger ones how to engage in subsistence and prepare the food, thus passing on ancestral knowledge, experience and skill.*

*Another benefit of subsistence is sharing and gift giving within the community. Families and neighbors exchange resources when they are abundant and available and the elderly are often the beneficiaries of resources shared by younger, more able-bodied practitioners.*

*Resources obtained through subsistence are also used for a variety of special life cycle occasions that bond families and communities. ´Ohana [family] and community residents participate in these gatherings, which cultivate and reinforce a sense of family and community identity. If ´ohana members had to purchase such resources rather than acquire through subsistence, the cost would be prohibitive and the number of ´ohana gatherings would decrease. Subsistence activities therefore enable ´ohana to gather frequently and reinforce important relationships and support networks."*
—McGregor, 2007.

Fishing contributes to the cultural integrity and social cohesion of Pacific island communities. In American Samoa, for instance, skipjack tuna is an especially important species both nutritionally and culturally. The methods and equipment for catching skipjack have changed, but the fish brought to shore continue to be distributed within Samoan villages according to age-old ceremonial traditions. Skipjack and certain large fish of other species may be formally separated into quarters or parts and shared with titled Samoans using formal cultural protocols at a variety of cultural ceremonies (Severance and Franco, 1989). One can find similar traditions still practiced in Hawaii, the Northern Mariana Islands and Guam. These socio-cultural attributes of fishing are at least as important as the contributions made to the nutritional or economic wellbeing of island residents (WPRFMC, 1999).

### 1.8.2 Traditional Indigenous Fishing and Modern Gear

The Council's Community Development Program defines "Traditional indigenous fishing" as, "fishing with methods developed from aboriginal customary and traditional uses and practices." This definition does not imply that the harvest methods must be the actual ones in existence at some specific point in history. The deliberate use of the term "developed from…. traditional uses and practices" is meant to highlight that resource extraction practices change over time. The Council found no basis for choosing one point in time to the exclusion of others in Hawaiian, Samoan, or Chamorro cultural history and insisting that modern harvesters conform to the practices of those eras. Moreover, the Council found that fishing gear and practices necessarily evolve to provide for greater safety and efficiency. For this reason, the Council finds that the use of modern gear can be used by fishermen practicing traditional indigenous fishing in the Monuments.

Many residents of the U.S. Pacific Islands live below national poverty thresholds (65% in American Samoa; 54 % in CNMI and 23% in Guam; GAO, 2010), which indicates that they face significant economic challenges. Even if there were no socio-economic constraints, the use of modern fishing gear does not change the way the fish are usually distributed throughout their communities – that is to say, in ways that maintain traditional culture and subsistence-based social relationships. The gathering, processing, celebrating and consuming of fish serve to define a sense of family and community as well as reinforce the relationships between people and environment (Callaway, 1995; Nuttall, 1992). For these reasons, the Council and NMFS consider the use of modern gear integral to maintaining traditional indigenous fishing in the Western Pacific Region and a key aspect of the Western Pacific Region's Community Development Program (67 FR 18512; April 16, 2002).

# 2 Alternatives

The Monuments were established by Proclamations that include various provisions for fishing. Three alternatives were considered by NMFS.

A summary of the fishery management measures under the alternatives is provided in Tables 1a-c below for the Marianas Trench, the Pacific Remote Islands (PRI), and Rose Atoll Monuments. The following sections describe the alternatives and expected fishery outcomes. Table 2, below, provides a summary of alternatives that were initially considered but then rejected from further consideration.

## 2.1 Alternative 1. No-action: Do not amend the Pelagics FEP or archipelagic FEPs or promulgate regulations to implement the fishing and management directives in Proclamations 8335, 8336, and 8337.

Under the No-action Alternative, NMFS would not amend the Pelagics FEP or archipelagic FEPs or promulgate regulations that address the commercial fishing prohibition within the Monuments or to address the sustainable management of non-commercial fishery provisions.

Under this alternative, commercial fishing in the Islands Unit of the Marianas Trench Monument, the Pacific Remote Islands, and the Rose Atoll Monuments would continue to be prohibited under the Proclamations. Existing fishery regulations would continue to be enforced under the MSFCMA. NMFS would not implement the Council's fishery management recommendations including clarifying definitions for non-commercial fishing. As non-commercial fishing would not be specifically defined and regulated, there could be user confusion and enforcement uncertainties regarding identifying non-commercial fishing in Monument waters.

Non-commercial fishing could occur in the Monument, and would likely occur at the same low level as historically occurred. Non-commercial fishing in the Monument would not require a Monument permit, but existing western Pacific fishing permits and logbooks would continue to be required. Non-commercial fishing in a Monument could occur on the same trip as commercial fishing outside of a Monument.

The existing low level of Refuge-compatible recreational and sustenance fishing around Wake Island and Palmyra Atoll that is permitted by the USFWS would continue. The no-take zone from shore to the 50 fathom (fm) depth contour around Rose Atoll; Howland, Baker, and Jarvis Islands; and Kingman Reef would remain in place; and the low-take zone from shore out to 50 fm around Wake Island, Johnston Atoll, and Palmyra Atoll would also remain in place; and permits would be required to harvest any MUS in the low-take areas.

Other existing required permits to fish non-commercially in the Monuments would continue to apply.

Under the No-action Alternative, the likely non-commercial fishing that would occur is a very low level of troll fishing in all Monument areas. In the Islands Unit, in addition to non-commercial troll fishing, it is expected that a low level of hand harvest of lobsters, spearfishing and pole and line fishing for coral reef ecosystem MUS, and bottomfish fishing would continue to occur.

## 2.2 Alternative 2: Amend the Pelagics FEP and archipelagic FEPs and promulgate regulations to implement only the provisions of Proclamations 8335, 8336, and 8337, on prohibiting commercial fishing and codifying the boundaries of the Monuments. No new management measures for non-commercial fishing in the PRI and Rose Atoll Monuments or in the Islands Unit of the Marianas Trench Monument would be implemented.

Under this alternative, the Council would amend the FEPs and NMFS would promulgate new regulations at 50 CFR Part 665 to implement the following required provisions of the Proclamations:

- Codify the boundaries of the Monuments and their various management units.
- Implement the prohibition on commercial fishing at Rose Atoll and PRI Monuments, and in the Islands Unit of the Marianas Trench Monument.

Under this alternative, NMFS would implement new regulations consistent with the Proclamations' prohibitions on commercial fishing in the Rose Atoll, and PRI Monuments, and in the Islands Unit of the Marianas Trench Monument and to codify boundaries of the Monuments. The FEPs would also be amended to include the boundaries of the Monuments and the prohibition on commercial fishing. The regulations would allow enforcement of the commercial fishing prohibition under the MSFCMA.

NMFS would not implement the Council's fishery management recommendations including clarifying definitions for non-commercial fishing. As non-commercial fishing would not be specifically defined and regulated, there could be user confusion and enforcement uncertainties regarding identifying non-commercial fishing in Monument waters. Non-commercial fishing could occur in the Monument, and would likely occur at the same low level as historically occurred and that is occurring in the No-action Alternative. Non-commercial fishing in the Monument would not require a Monument permit, but existing western Pacific fishing permits and logbooks would continue to be required. Non-commercial fishing in a Monument could occur on the same trip as commercial fishing outside of a Monument.

The existing low level of Refuge-compatible recreational and sustenance fishing around Wake Islands and Palmyra Atoll that is permitted by the USFWS, would continue. The 0-50 fathom no-take marine zone around Rose Atoll; Howland, Baker, and Jarvis Islands; and Kingman Reef would remain in place; and the low-take zone from 0-50 fm around

Wake Island, Johnston Atoll, and Palmyra Atoll would also remain in place; and permits would be required to harvest MUS in the low-take areas.

Other existing required permits to fish non-commercially in the Monuments would continue to apply.

Under Alternative 2, the likely non-commercial fishing that would occur is a very low level of troll fishing in all Monument areas. In the Islands Unit, in addition to non-commercial troll fishing, it is expected that a low level of hand harvest of lobsters, spearfishing and pole and line fishing for coral reef ecosystem MUS, and bottomfish fishing would continue to occur.

## 2.3 Alternative 3: Amend the Pelagics FEP and archipelagic FEPs and promulgate regulations to implement the provisions of Proclamations 8335, 8336, and 8337, on prohibiting commercial fishing and codifying the boundaries of the Monuments. Implement the Council's recommendations for sustainably managing non-commercial fishing in the PRI and Rose Atoll Monuments, and in the Islands Unit of the Marianas Trench Monument. (Preferred Alternative)

Under the preferred alternative (Alternative 3), NMFS would promulgate new regulations at 50CFR Part 665 to implement the following provisions of the Proclamations and including the Council's recommendations for managing non-commercial fishing:

Consistent with the Proclamations and based on recommendations from the Council, under the preferred alternative, NMFS would implement new requirements as follows:

- Codify the boundaries of the monuments and their various management units.
- Prohibit commercial fishing in the Pacific Remote Islands and Rose Atoll Monuments, and in the Islands Unit of the Marianas Trench Monument.
- Establish management measures for non-commercial and recreational fishing in the monuments to include the following:
    - Require Federal permits and reporting for non-commercial and recreational charter fishing to aid in the monitoring of fishing activities.
    - Allow customary exchange in non-commercial fisheries in the Marianas Trench Monument Islands Unit and Rose Atoll Monuments to help preserve traditional, indigenous, and cultural fishing practices, on a sustainable basis.
    - Define customary exchange as the non-market exchange of marine resources between fishermen and community residents, including family and friends of community residents, for goods, and/or services for cultural, social, or religious reasons. This may include cost recovery through monetary reimbursements and other means for actual trip expenses, including but not limited to ice, bait, food, or fuel, that may be necessary to participate in fisheries in the western Pacific.

- Limit permit eligibility for non-commercial fishing to community residents, as identified in the fishery ecosystem plans -- specifically, American Samoa, Guam and the CNMI are fishing communities -- and limit permit eligibility for recreational charters to businesses of local fishing communities for the Rose Atoll Monument and Marianas Trench Monument Islands Unit.
- Prohibit all fishing within 12 nm of islands in the Pacific Remote Islands Monument, subject to U.S. Fish & Wildlife Service authority to allow non-commercial fishing in consultation with NMFS and the Council.
- Prohibit all fishing within 12 nm around Rose Atoll. The Council and NMFS would review this regulation after three years.

- Prohibit the conduct of commercial fishing outside a monument and non-commercial fishing within the monument during the same trip.

Under the preferred alternative, the following definitions would be added to the FEPs and regulations found at 50 CFR 665.12:

- "Non-commercial fishing" in the Monuments would be defined as, "fishing that does not meet the definition of commercial fishing in the Magnuson-Stevens Fishery Conservation and Management Act, and includes, but is not limited to, sustenance, subsistence, traditional indigenous and recreational fishing."

- "Recreational fishing" in the Monuments would be defined as, "fishing conducted for sport or pleasure including charter fishing." While recreational fishing can be allowed in the Marine National Monuments, the catch from charter for-hire fishing or recreational fishing cannot be sold, bartered, or traded nor included in customary exchange.

- "Customary exchange" for non-commercial fishing in the Monuments would be defined as, "the non-market exchange of marine resources between fishermen and community residents, including family and friends of residents for goods, services and/or social support for cultural, social, or religious reasons. Customary exchange may include cost recovery through monetary reimbursements and other means for actual trip expenses, including but not limited to ice, bait, food, fuel, that may be necessary to participate in fisheries in the Western Pacific Region."

Under Alternative 3, commercial fishing in the Islands Unit of the Marianas Trench Monument, and in the Pacific Remote Islands, and Rose Atoll Monuments would continue to be prohibited under the Proclamation and the MSFCMA.

Fishing in the Islands Unit, the PRI and Rose Atoll Monuments would be subject to new requirements. A non-commercial permit would be required in order to fish non-commercially in the Rose Atoll Monument or Islands Unit of the Marianas Trench Monument; and either an existing PRI fishing permit or a charter recreational fishing permit would be required to fish in the PRI Monument. A no-take marine zone would be

established for all marine species from emergent land to 12 nm at Rose Atoll and in the PRI. The no-take/no fishing zone around Rose Atoll would be re-evaluated by the Council in three years. No no-take zone is proposed for the Islands Unit of the Marianas Trench Monument. The no-take/no fishing area from shore to 12nm in the PRI would be subject to authorization of non-commercial fishing by the U.S. Fish and Wildlife Service in consultation with NMFS and the Council in accordance with the Proclamation.

Either one of two types of fishing permits would be required to fish non-commercially in the Islands Unit and Rose Atoll. A recreational charter permit would (a) allow sustenance catches to be retained, (b) would prohibit the sale or barter-and-trade of catches, and (c) would require owner/operators to be local businesses from Guam or the CNMI (in the case of fishing in the Islands Unit) or from American Samoa (for fishing in Rose Atoll). A non-commercial fishing permit would be available to community residents of Guam and the CNMI (in the case of the Islands Unit) or of American Samoa (for fishing in Rose Atoll) to fish beyond 12nm in the Rose Atoll Monument and throughout the Islands Unit. Under the latter type of permit, fishermen from American Samoa, Guam and the CNMI could engage in customary exchange. Logbooks would be required for both types of non-commercial fishing in the Monument. In the PRI Monument, non-commercial fishing beyond 12nm from shore in the Monument, would require either an existing PRI fishing permit (type would depend on the MUS being harvested) or a recreational charter permit. Customary exchange would not be allowed for fishing in the PRI.

Under Alternative 3, non-commercial fishing would be specifically defined and regulated, which would remove user confusion and the permit requirement would reduce enforcement uncertainties regarding identifying non-commercial fishing in Monument waters. Prohibiting non-commercial fishing in the Monument and commercial fishing outside of the Monument on the same trip would provide an additional safeguard to deter commercial fishing in the Monuments and would enhance enforcement of the proposed action.

Table 1. Summary of Fishery Management Measures under the Alternatives in the Rose Atoll Monument (Table 1a), in the PRI Monument (Table 1b) and Marianas Trench Monument (Table 1c).

| Table 1a. Summary of fishery management measures in the Rose Atoll Marine National Monument under the alternatives. | | | |
|---|---|---|---|
| Topic: | Alt. 1. No Action: Do not amend the FEPs or promulgate regulations for management of fishing in the Monument. | Alt. 2. Amend the FEPs and promulgate regulations to codify the Monument boundary and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate fishery regulations to codify the Monument boundary and the prohibition on commercial fishing; and define and sustainably manage non-commercial fishing in the Monument (Preferred Alternative) |
| Marine boundary of the Rose Atoll Marine National Monument: | As described in the Proclamation, the Monument includes waters from mean low water to extent of the Monument boundary (area defined in the Proclamation). | Monument boundary would be codified in the fishery regulations. | Monument boundary would be codified in the fishery regulations. |
| Commercial fishing in the Monument: | Prohibited by Proclamation. | Prohibited by Proclamation and by Regulation. | Prohibited by Proclamation and by Regulation. |
| No-take zones around Rose Atoll: | 0-50 fm no-take zone for all Management Unit Species (MUS). | No change. | No-take zone for all species from 0-12 nm. |
| Permits and logbooks required to fish non-commercially in the Monument: | American Samoa FEP permits and logbooks would be required to fish in the Monument. | No change. | Either a non-commercial or a charter recreational fishing permit would be required to fish in the Monument beyond 12 nm.<br>Daily logbooks would also be required. |
| “Customary Exchange” defined: | No. | No change. | Yes. |

| Table 1a. Summary of fishery management measures in the Rose Atoll Marine National Monument under the alternatives. | | | |
|---|---|---|---|
| Topic: | Alt. 1. No Action: Do not amend the FEPs or promulgate regulations for management of fishing in the Monument. | Alt. 2. Amend the FEPs and promulgate regulations to codify the Monument boundary and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate fishery regulations to codify the Monument boundary and the prohibition on commercial fishing; and define and sustainably manage non-commercial fishing in the Monument (Preferred Alternative) |
| Permit eligibility requirements to fish non-commercially in the Monument: | None | No change. | Applicant must be a resident of the American Samoa community to obtain a non-commercial permit. An applicant for a charter fishing permit would need to have a legally established charter fishing business in American Samoa. |
| Non-commercial fishing inside the Monument and commercial fishing outside the Monument on the same trip: | Yes. | No change. | No. It would be prohibited to fish non-commercially inside the Monument and fish commercially in waters outside of the Monument on the same trip. |

| Table 1b. Summary of fishery management measures in the Marianas Trench Marine National Monument* under the alternatives. | | | |
|---|---|---|---|
| Topic: | Alt. 1. No Action: Do not amend the FEPs or promulgate regulations for management of fishing in the Monument. | Alt. 2. Amend the FEPs and promulgate regulations to codify the Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate fishery regulations to codify the Monument boundaries and the prohibition on commercial fishing; and define and sustainably manage non-commercial fishing in the Monument (Preferred Alternative) |
| Marine boundaries of the Marianas Trench Monument: | As described in the Proclamation, the Monument includes three areas:<br>Islands Unit: includes waters from mean low tide to the extent of the Monument boundary.<br>Volcanic Unit: submerged lands within 1 nm of specific volcanic sites within the Marianas.<br>Trench Unit: A defined area including submerged lands around the Mariana Trench. | Monument boundaries would be codified in the fishery regulations. | Monument boundaries would be codified in the fishery regulations. |
| Commercial fishing in the Monument: | Prohibited by Proclamation in the Islands Unit, but not in the Trench and Volcanic Units. | Prohibited by Proclamation and by Regulation.<br><br>No change in the Trench and Volcanic Units. | Prohibited by Proclamation and by Regulation.<br><br>No change in the Trench and Volcanic Units. |
| No-Take Zones | None. | No change. | No change. |

| Table 1b. Summary of fishery management measures in the Marianas Trench Marine National Monument* under the alternatives. | | | |
|---|---|---|---|
| Topic: | Alt. 1. No Action: Do not amend the FEPs or promulgate regulations for management of fishing in the Monument. | Alt. 2. Amend the FEPs and promulgate regulations to codify the Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate fishery regulations to codify the Monument boundaries and the prohibition on commercial fishing; and define and sustainably manage non-commercial fishing in the Monument (Preferred Alternative) |
| Permits and logbooks required to fish non-commercially in the Monument | Mariana Islands FEP (CNMI) permits and logbooks would apply to non-commercial fishing in the Monument. Permits are required to harvest some coral reef ecosystem and precious coral MUS. | No change. | Islands Unit Either a non-commercial or a charter recreational fishing permit would be required to fish in the Islands Unit. Daily logbooks would also be required.<br><br>Volcanic and Trench Units: No change. |
| "Customary Exchange" defined: | No. | No change. | Islands Unit: Yes.<br>Volcanic and Trench Units: No change. |
| Permit eligibility requirements to fish non-commercially in the Monument: | No, for all units. | No change. | Islands Unit: Yes. Applicant must be a resident of the CNMI or Guam community to obtain a non-commercial permit. An applicant for a charter fishing permit would need to have a legally established charter fishing business in the CNMI or Guam.<br>Volcanic and Trench Units: No change. |

| Table 1b. Summary of fishery management measures in the Marianas Trench Marine National Monument* under the alternatives. | | | |
|---|---|---|---|
| Topic: | Alt. 1. No Action: Do not amend the FEPs or promulgate regulations for management of fishing in the Monument. | Alt. 2. Amend the FEPs and promulgate regulations to codify the Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate fishery regulations to codify the Monument boundaries and the prohibition on commercial fishing; and define and sustainably manage non-commercial fishing in the Monument (Preferred Alternative) |
| Non-commercial fishing inside the Islands Unit and commercial fishing outside the Islands Unit on the same trip: | Yes. | No change. | Islands Unit: No. It would be prohibited to fish non-commercially inside the Islands Unit and fish commercially in waters outside of the Islands Unit on the same trip. Volcanic and Trench Units: No change. |

*The Marianas Trench Marine National Monument includes three units: the Trench Unit, the Volcanic Unit, and the Islands Unit.

| Table 1c. Summary of fishery management measures in the Pacific Remote Islands Marine National Monument under the alternatives. | | | |
|---|---|---|---|
| Topic: | Alt. 1. No Action: Do not amend the FEPs or promulgate regulations for management of fishing in the Monument. | Alt. 2. Amend the FEPs and promulgate regulations to codify the Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate fishery regulations to codify the Monument boundaries and the prohibition on commercial fishing; and define and sustainably manage non-commercial fishing in the Monument (Preferred Alternative) |
| Marine boundaries of the PRI Marine National Monument: | As specified in the Proclamation, the Monument includes submerged lands and waters from the shore to the outer boundary. | Monument boundaries would be codified in the fishery regulations. | Monument boundaries would be codified in the fishery regulations. |
| Commercial fishing in the Monument: | Prohibited by Proclamation. | Prohibited by Proclamation and by Regulation. | Prohibited by Proclamation and by Regulation. |
| No-take zones around the PRI Units: | No-take zone for all Management Unit Species (MUS) from 0-50 fm around Kingman Reef, Howland, Baker, and Jarvis Islands. Low-take zone for all MUS from 0-50 fm around Palmyra Atoll, and Wake Island and Johnston Atoll. | No change. | A no-take zone for all MUS would be established from 0-12 nm, subject to authorization of non-commercial fishing by the USFWS in consultation with NMFS and the Council. |

| Table 1c. Summary of fishery management measures in the Pacific Remote Islands Marine National Monument under the alternatives. | | | |
|---|---|---|---|
| Topic: | Alt. 1. No Action: Do not amend the FEPs or promulgate regulations for management of fishing in the Monument. | Alt. 2. Amend the FEPs and promulgate regulations to codify the Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate fishery regulations to codify the Monument boundaries and the prohibition on commercial fishing; and define and sustainably manage non-commercial fishing in the Monument (Preferred Alternative) |
| Permits and logbooks required to fish non-commercially in the Monument: | Western Pacific fishery permits and logbooks apply to fishing in the EEZ around the PRI including pelagic troll and handline permits; and PRI FEP permits for bottomfish, some coral reef ecosystem species, crustaceans and precious corals. | No change. | Either a Western Pacific Troll and Handline permit or other PRI FEP permit and associated logbooks; or a charter recreational fishing permit and logbooks would be required to fish non-commercially beyond 12nm in the Monument. |
| "Customary Exchange" Defined: | No. | No change. | No change. |
| Permit eligibility requirements to fish non-commercially in the Monument: | No. | No change. | No change. |
| Non commercial fishing inside the Monument and commercial fishing outside the Monument on the same trip: | Yes. | Yes. | No. |

## 2.4 Alternatives Considered but not Analyzed in Further Detail

NEPA requires consideration of a reasonable range of technically and economically feasible alternatives that will permit a reasoned choice. Only alternatives that are reasonably related to the purpose of the action need be examined.

During its deliberative process to develop fishing regulations for the Monuments, the Council considered and analyzed a number of options related to definitions of allowed fishing activities, spatial management measures (e.g., area closures), permit and logbook requirements, bag limits, gear types, participation, and trip cost reimbursement limits.

Information about alternatives that the Council initially considered but did not recommend as part of the proposed management program, including reasons the option was rejected, is summarized in Table 2 with more detail in an Options Paper (WPFMC, 2012c). Generally, alternatives were either rejected because they did not meet the purpose and need of the proposed action, or because the options were not significantly distinguishable from the alternatives examined in this document, in that they would have substantially similar environmental consequences.

Alternatives relating to defining the terms “culturally significant subsistence,” “cultural uses,” and “religious uses” of fishery resources (referred to in the Proclamations) were considered by the Council early on in the planning process. However, the Council’s ultimately recommended defining “customary exchange” which eliminated the need to define “culturally significant subsistence”, “cultural uses” and “religious uses,” and therefore, the proposed action to permit non-commercial fishing covers these types of fishing and eliminated the need to further define these activities.

Table 2. Alternatives considered and rejected from further consideration as management options for non-commercial fishing in the Rose Atoll, Marinas Trench Islands Unit, and the Pacific Remote Islands Monuments.

| Alternatives considered and rejected from further consideration as management options for non-commercial fishing in the Rose Atoll, Marinas Trench Islands Unit, and the Pacific Remote Islands Monuments. | |
|---|---|
| Topic | Option Considered |
| 1.Defining Commercial Fishing exclusively under the MSFCMA | The Council considered defining commercial fishing in the Monuments exclusively under the MSFCMA. The Proclamations directing the prohibition of commercial fishing in the Monuments arise under the Antiquities Act, which does not contain a definition of commercial fishing.<br>The option of defining commercial fishing under the MSFCMA potentially would prohibit the option for non-commercial traditional and indigenous fishermen and sustenance fishermen to participate in customary exchange which may include barter and trade to help recoup some expenses related to fishing in the Islands Unit and Rose Atoll. This option was rejected because it would be inconsistent with the Proclamation and therefore would not meet the purpose and need of the proposed action. Specifically, the Proclamations authorize the Secretaries to permit non-commercial fishing on a sustainable basis, including traditional and indigenous fishing, which potentially would be subject to the commercial fishing prohibition under the MSFCMA definition. |
| 2. Limit Trip Reimbursements or "Cash Exchange" | The Council considered a range of alternatives for limiting trip cost reimbursements as a possible means of ensuring that the practice of customary exchange does not cross the line into commercial fishing.<br>The Council initially considered limiting cash exchange to $200.00. However, the Council's Science and Statistical Committee SSC found this limit was arbitrary and not based on any economic analysis. This alternative was rejected from further analysis because establishing artificially low limits on cash reimbursements would discourage the community-based traditional indigenous fishing practices sought to be preserved under the Proclamations, and therefore would be inconsistent with the purpose and need for the action. In this regard, the Council noted that under the Alaska Subsistence Halibut Program, initial regulations that allowed the sale of up to $400 a year proposed for nominal reimbursement changed the subsistence fishers' behavior by providing an incentive to sell fish for money. Also, the $400.00 limit was unenforceable because it was not possible to distinguish between sale and customary traditional exchanges of cash. Because establishing cash limits could change fishermen's behaviors and motivations for harvesting fish and could change the |

| Alternatives considered and rejected from further consideration as management options for non-commercial fishing in the Rose Atoll, Marinas Trench Islands Unit, and the Pacific Remote Islands Monuments. | |
|---|---|
| Topic | Option Considered |
| | practice of customary exchange, this alternative would be inconsistent with the purpose and need for the action. |
| 3. Bag limits | The Council considered a range of alternatives for imposing bag limits for non-commercial fishing in the Monuments as a possible means of ensuring that the practice of customary exchange does not cross the line into commercial fishing. Bag limits for non-commercial fishing were rejected from further consideration because of the lack of scientific data supporting their effectiveness as a management tool to ensure only low-level harvests of pelagic species. Specifically, the SSC working group on "Customary Exchange and Related Issues" found that bag limits are appropriate when: 1) the status of a resource is unknown or believed to be depleted or 2) to provide a limit on non-commercial harvests that can be used for assessment purposes when logbooks are not required. The pelagic species found in the Monuments include yellowfin and skipjack tuna, mahimahi, wahoo, and billfish, which are highly migratory and likely move in and out the Islands Unit, PRI and Rose Atoll Monument areas, as well as other areas of the EEZ. As these are the only pelagic resources expected to be harvested under non-commercial fishing permits at Rose Atoll and the PRI, and by troll fishermen in the Islands Unit, and since logbooks would be required and monitored to determine actual fishing effort, bag limits were considered unnecessary to ensure the conservation and sustainable management of fisheries resource or to prevent unlawful commercial fishing. For other MUS that may be harvested in the Islands Unit, bag limits were also considered unnecessary since permits and logbooks would be required and because only a low level of non-commercial fishing is expected. Furthermore, all fishing would be subject logbook monitoring and post-season fishing review to compare harvests with Annual Catch Limits. Accordingly, because implementation of bag limits would not result in effective management of fishing in the Monuments and would not provided any additional conservation benefit for any MUS, this option has been rejected from further consideration. |

| Alternatives considered and rejected from further consideration as management options for non-commercial fishing in the Rose Atoll, Marinas Trench Islands Unit, and the Pacific Remote Islands Monuments. | |
|---|---|
| Topic | Option Considered |
| 4. Definition of "non-commercial fishing" to limit the amount of fishing that could occur to the practices that were in existence in the communities of American Samoa and the Mariana Archipelago in 2009. | The Council considered modifying the definition of "non-commercial" fishing to consider whether "traditional indigenous fishing" should be limited to traditional and culturally significant fishing practices in existence within the fishing communities of American Samoa and Guam and the CNMI at the time the Monuments were established under Proclamations. The Council's Scientific and Statistical Committee (SSC) Working Group concluded that defining traditional indigenous fishing this way would be culturally insensitive to fishing communities of American Samoa and the Mariana Islands Archipelago. The SSC concluded that, "The establishment of the Monuments should by no means curtail traditional indigenous fishing as its has been a long held view of the SSC and Council that the method of traditional fishing as well as the what one does with the fish is what constitutes traditional indigenous fishing, not what gear one uses nor a date important to a federal agency." Moreover, restricting the evolution of traditional fishing practices could undermine other important MSFCMA objectives, including safety of life at sea and efficiency in the utilization of fishery resources. Finally, there is no conservation and management basis to restrict the definition of traditional indigenous fishing to a particular point in time, and the proposed requirements for permits and logbooks would help alert fishery managers to the potential for commercial fishing. Because the benefits of this alternative would be speculative and are not expected to result in improved management of fishery resources beyond that which could be achieved through permits and logbooks; and the annual review of fishing in the Monuments for comparison with Annual Catch Limits, this alternative was rejected from further consideration as a management option. |
| 5. Range of definitions to be used in managing non-commercial fishing the Marianas Trench Monument (Islands Unit) | Early in the planning process, the Council considered a range of definitions for non-commercial fishing, sustenance fishing, recreational fishing, traditional indigenous fishing, and culturally significant subsistence, cultural and religious uses of fish resources. After deliberating on each option, the Council developed the proposed range of fishery management measures. These options are not significantly distinguishable from the alternative considered in this EA, and are expected to have substantially similar environmental consequences, so alternatives that included these various definitions were not considered in detail. |

| Alternatives considered and rejected from further consideration as management options for non-commercial fishing in the Rose Atoll, Marinas Trench Islands Unit, and the Pacific Remote Islands Monuments. | |
|---|---|
| Topic | Option Considered |
| 6. Range of definitions to be used in managing non-commercial fishing in Rose Atoll Monument | Early in the planning process, the Council considered a range of definitions for non-commercial fishing, sustenance fishing, recreational fishing, traditional indigenous fishing, and culturally significant subsistence, cultural and religious uses of fish resources. After deliberating on each option, the Council developed the proposed range of fishery management measures. These options are not significantly distinguishable from the alternative considered in this EA, and are expected to have substantially similar environmental consequences, so alternatives that included these various definitions were not considered in detail. |
| 7. Range of definitions to be used in managing non-commercial fishing in the PRI Monument | Early in the planning process, the Council considered a range of definitions for non-commercial fishing, sustenance fishing, recreational fishing, traditional indigenous fishing, and culturally significant subsistence, cultural and religious uses of fish resources. After deliberating on each option, the Council developed the proposed range of fishery management measures. These options are not significantly distinguishable from the alternative considered in this EA, and are expected to have substantially similar environmental consequences , so alternatives that included these various definitions were not considered in detail. |

Source: WPFMC SSC, 2011. SSC Working Group on Cultural Exchange and Other Issues; WPFMC, 2012c. (Supplemental Options Paper).

# 3 Overview of the Monuments and Affected Environment

This section provides an overview of the Monument areas and fishery and other resources that could be affected by the proposed management program. For more detailed information about each area's fisheries that is not part of this analysis, refer to the FEPs for the Mariana Islands, the Pacific Remote Island Areas, American Samoa, and western Pacific Pelagics (WPFMC, 2009a, b, c, d)[9].

## 3.1 Mariana Archipelago

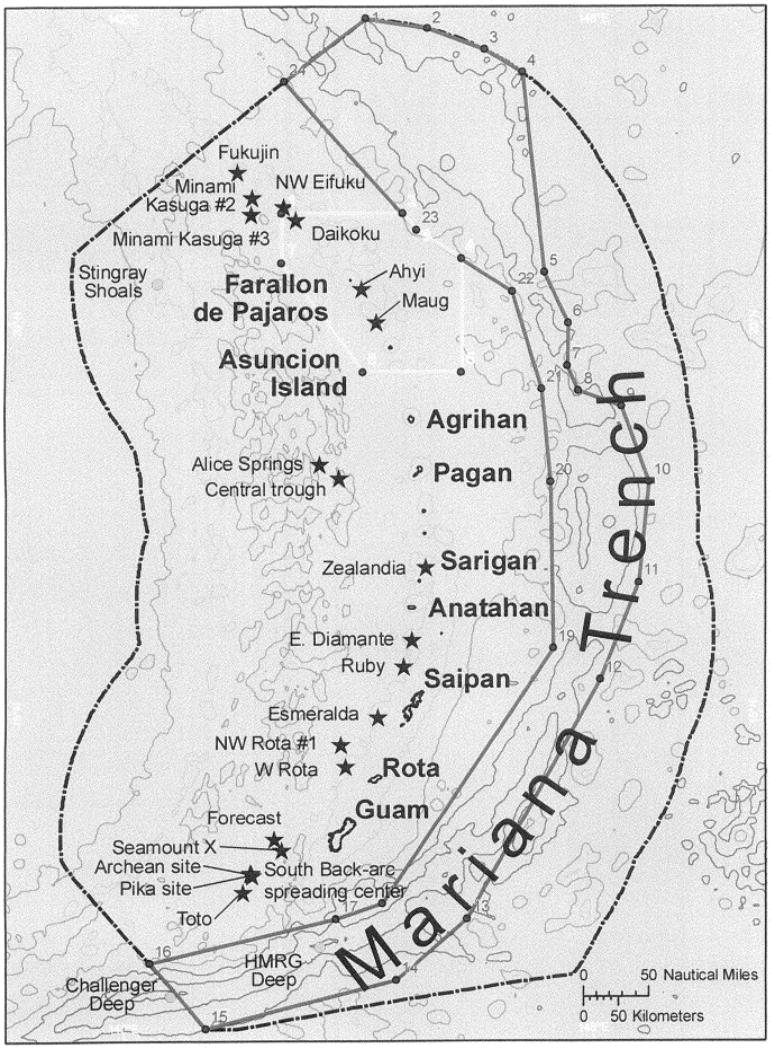
### 3.1.1 Overview of Guam and the CNMI

The Mariana Islands (covering ~396 square miles of emergent land) are composed of 15 volcanic islands that are part of a submerged mountain chain that stretches nearly 1,500 miles from Guam to Japan. The Mariana Islands includes Guam and the CNMI.

The CNMI, situated between 14–21° N latitude and 144–146° E longitude, is oriented along a north–south axis stretching over a distance of 400 nm (740 km) from Rota northward to Farallon de Pajaros (also known as Uracas). The islands can be divided into two sections based on age and geology. The northern island complex stretches from Esmeralda Bank west of Tinian to Uracas Bank north of Uracas. In the CNMI, the geographically older southern island complex encompasses the islands and banks from Rota to the Sonome Reef complex north of Farallon de Medinilla and east of Anatahan. The total land area of the CNMI is approximately 179 square miles (463 $km^2$).
The Island of Guam, located at 13° 28' N latitude and 144° 45 E longitude, is the southernmost island in the archipelago, and with a total land area of 216 square miles (560 $km^2$) is also the largest (NOAA, 2005b).

[9] Fishery ecosystem plans are available for download at http://wpcouncil.org/hot/

# Marianas Trench Marine National Monument




**Trench Unit**

| Id | Longitude | Latitude |
|---|---|---|
| 1 | 145° 5' 46" E | 23° 53' 35" N |
| 2 | 145° 52' 27.10" E | 23° 45' 50.54" N |
| 3 | 146° 36' 18.91" E | 23° 29' 18.33" N |
| 4 | 147° 5' 16.84" E | 23° 11' 43.92" N |
| 5 | 147° 22' 31.43" E | 20° 38' 41.35" N |
| 6 | 147° 40' 48.31" E | 19° 59' 23.30" N |
| 7 | 147° 39' 59.51" E | 19° 27' 2.96" N |
| 8 | 147° 48' 51.61" E | 19° 8' 18.74" N |
| 9 | 148° 21' 47.20" E | 18° 56' 6.46" N |
| 10 | 148° 42' 50.50" E | 17° 58' 2.20" N |
| 11 | 148° 34' 47.12" E | 16° 40' 53.86" N |
| 12 | 148° 5' 39.95" E | 15° 25' 51.09" N |
| 13 | 146° 23' 24.38" E | 12° 21' 38.38" N |
| 14 | 145° 28' 33.28" E | 11° 34' 7.64" N |
| 15 | 143° 3' 9" E | 10° 57' 30" N |
| 16 | 142° 19' 54.93" E | 11° 47' 24.83" N |
| 17 | 144° 42' 31.24" E | 12° 21' 24.65" N |
| 18 | 145° 17' 59.93" E | 12° 33' 5.35" N |
| 19 | 147° 29' 32.24" E | 15° 49' 25.53" N |
| 20 | 147° 27' 32.35" E | 17° 57' 52.76" N |
| 21 | 147° 20' 16.96" E | 19° 9' 19.41" N |
| 22 | 146° 57' 55.31" E | 20° 23' 58.80" N |
| 23 | 145° 44' 31.14" E | 21° 11' 14.60" N |
| 24 | 144° 5' 27.55" E | 23° 2' 28.67" N |

**Islands Unit**

| Id | Longitude | Latitude |
|---|---|---|
| 1 | 144° 1' 22.97" E | 21° 23' 42.40" N |
| 2 | 145° 33' 25.20" E | 21° 23' 42.40" N |
| 3 | 145° 44' 31.14" E | 21° 11' 14.60" N |
| 4 | 146° 18' 36.75" E | 20° 49' 17.46" N |
| 5 | 146° 18' 36.75" E | 19° 22' 0.00" N |
| 6 | 145° 3' 12.22" E | 19° 22' 0.00" N |
| 7 | 144° 1' 22.97" E | 20° 45' 44.11" N |

**Vents Unit**

| Volcano | Longitude | Latitude |
|---|---|---|
| Fukujin | 143° 27' 30" E | 21° 56' 30" N |
| Minami Kasuga #2 | 143° 38' 30" E | 21° 36' 36" N |
| NW Eifuku | 144° 2' 36" E | 21° 29' 15" N |
| Minami Kasuga #3 | 143° 38' 0" E | 21° 24' 0" N |
| Daikoku | 144° 11' 39" E | 21° 19' 27" N |
| Ahyi | 145° 1' 45" E | 20° 26' 15" N |
| Maug | 145° 13' 18" E | 20° 1' 15" N |
| Alice Springs | 144° 30' 0" E | 18° 12' 0" N |
| Central trough | 144° 45' 0" E | 18° 1' 0" N |
| Zealandia | 145° 51' 4" E | 16° 52' 57" N |
| E. Diamante | 145° 40' 47" E | 15° 56' 31" N |
| Ruby | 145° 34' 24" E | 15° 36' 15" N |
| Esmeralda | 145° 14' 45" E | 14° 57' 30" N |
| NW Rota #1 | 144° 46' 30" E | 14° 36' 0" N |
| W Rota | 144° 50' 0" E | 14° 19' 30" N |
| Forecast | 143° 55' 12" E | 13° 23' 30" N |
| Seamount X | 144° 1' 0" E | 13° 14' 48" N |
| South Backarc | 143° 37' 8" E | 12° 57' 12" N |
| Archaean site | 143° 37' 55" E | 12° 56' 23" N |
| Pika site | 143° 38' 55" E | 12° 55' 7" N |
| Toto | 143° 31' 42" E | 12° 42' 48" N |

Sources:
NOAA Coral Reef Conservation Program
NMFS Coral Reef Ecosystem Division
NESDIS NGDC
NOS/CCMA Biogeography Branch
OAR Pacific Marine Environmental Lab

-10000 m
-8000 m
-6000 m
-4000 m
-2000 m

Active Hydrothermal Submarine Volcanoes
Trench Unit (59,732 nm²)
Islands Unit (12,388 nm²)
EEZ

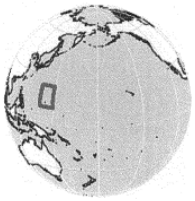


Figure 2: The Mariana Archipelago and locations of the Islands, Trench, and Volcanic Units.
Source: http://www.gpo.gov/fdsys/pkg/FR-2009-01-12/pdf/E9-496.pdf

In addition to the islands that make up the Mariana Archipelago, a chain of submerged seamounts are located approximately 120 nm west of the CNMI and Guam, also in a general north–south orientation. Several banks are located to the southwest of Guam with Galvez and Santa Rosa Banks being the largest. The islands and seamounts that make up this island chain were formed approximately 43 million years ago by the subduction of the Pacific tectonic plate under the Philippine plate (Paulay, 2003). A unique feature created at this subduction zone is the Mariana Trench. Located east of the island chain and running in a north–south orientation, the Mariana Trench contains the deepest location on Earth -- the Challenger Deep at 6 miles (11,000 meters) deep.

Overview of the Socioeconomic Setting of Guam

According to the 2010 U.S. Census, Guam had a total population of 159,358 (U.S. Census Bureau, 2011). This represented an increase of 2.9 percent from the 2000 Census population. In 2000, the latest date for which information is available, 37 percent of Guam's population identified themselves as Chamorro, Guam's indigenous people, followed by 32 percent who identified themselves as Asian (about 80 percent of whom were Filipino), 17 percent as other Pacific Islander, 7 percent as white, and 1 percent as black. These were the proportions for the 86 percent of the population who identified themselves as having just one ethnicity or race. In the 2000 Census, people could also identify themselves as belonging to two or more races or ethnic groups. Nearly 14 percent identified themselves as belonging to two or more races or ethnic groups; of these, 50 percent said they were Asian and other and 37 percent said they were Chamorro and other. Considering these two measures of race/ethnicity together, about 42 percent of Guam's population is all or part Chamorro.

The Guam Department of Labor estimated the number of employees on payroll to be 64,230 in 1998, a decrease of 3.8 percent from the 1997 figure. Of the 64,230 employees, 44,780 were in the private sector and 19,450 were in the public sector. The Federal government employs 7.6 percent of the total work force, while the Government of Guam employs 22.7 percent. Guam had an unemployment rate of 15.2 percent in 1999. As of 2000, Guam had 39,143 men age 16 and over in the labor force, of whom 81 percent were employed and 29,751 women age 16 and over in the labor force, of whom 86 percent were employed (U.S. Census Bureau, 2000).

Overview of the Socioeconomic Setting of the CNMI

In 2010, the population of the CNMI was 53,883 (U.S. Census Bureau, 2011). This represented a decrease of 22.2 percent from the 2000 Census population of 69,221. In 2005 the largest single ethnic group in the CNMI was Filipino at about 30 percent of the estimated total CNMI population, followed by Chamorro (23%) and Chinese (16%). Carolinians comprised about 5 percent of the total population. Asians made up more than half (53%) of the CNMI's total population, Pacific Islanders about 37 percent, and Caucasian less than 2 percent. Multiple ethnic persons made up about 8 percent of the Commonwealth's total population. In 2005, about half (50.3%) of the CNMI's total population were U.S. citizens; while slightly less than half (49.7%) were non-U.S.

citizens. However, by gender, total male U.S. citizens outnumbered total male non-U.S. citizens, while total female non-U.S. citizens outnumbered total female U.S. citizens. This is mainly because of the large number of non-U.S. citizen females who were working in the apparel industry at the time of the survey in 2005. Of the estimated total 16 years and older persons (48,669) in the CNMI in 2005, 79% were in the labor force. About 78% of the CNMI's total employed persons were non-U.S. citizens while 22 % were U.S. citizens in 2005.

In 2000, per capita income in the CNMI was $9,151 and the median household income for the CNMI was $22,898 (U.S. Census Bureau, 2000). In 2005, the per capita income was estimated to be $6,178 and the median household income was estimated to be $17,138 (Central Statistics Division, 2008). The Commonwealth had an unemployment rate in 1999 of 5.5 percent and in 2005 was estimated to be 8 percent. Forty-six percent of the CNMI population was at or below poverty in 1999 (U.S. Census Bureau, 2000) and 54.5 percent was at or below the poverty level in 2005.

The economy of the CNMI has historically benefited substantially from financial assistance from the United States, but in recent years this assistance has declined as locally generated government revenues have grown. Between 1988 and 1996, tourism was the Commonwealth's largest income source. During that period tourist traffic to the CNMI tripled from 245,505 to 736,117 visitors (BOH, 1999a). Total tourist expenditures in the CNMI were estimated to be a record $587 million in 1996. In 1997 and 1998, however, the loss of air service between the CNMI and Korea, together with the impact of the Asian financial crisis on both Korean and Japanese travelers, caused tourist arrivals in the CNMI to drop by one third (BOH, 1999a).

CNMI once had 34 garment factories, contributing approximately $60 million per year to direct taxes to the local government (Mortensen, 2009). However, changes to the U.S. minimum wage structure caused garment makers to leave the CNMI. There are no longer garment factories in CNMI; the last three ceased operations in February 2009.

Overview of Fishing around Guam

For the reader's interest, more detailed information about Guam's pelagic fisheries may be found in the Pelagic Fisheries of the Western Pacific Region 2010 Annual Report (WPFMC, 2012a). Highlights of Guam's fisheries are summarized here.

Fishing for pelagic, bottomfish, and coral reef species is common around Guam. Pelagic fishing vessels based in Guam are classified into two general groups: 1) distant-water commercial purse seiners and longliners that fish outside the EEZ around Guam and transship through the island and, 2) small recreational trolling boats (charter and non-charter) that fish only within local waters, either within the EEZ around Guam, or occasionally, in the CNMI or the EEZ around the CNMI. Landings consist primarily of five major species: mahimahi (*Coryphaena hippurus*), wahoo (*Acanthocybium solandri*), bonito or skipjack tuna (*Katsuwonus pelamis*), yellowfin tuna (*Thunnus albacares*), and Pacific blue marlin (*Makaira mazara*). The estimated annual pelagic landings have varied

widely, ranging between 322,000 and 937,000 pounds over the 29-year time series (1982-2010) (WPRFMC, 2012a). In 2010, an estimated 432 charter and non-charter vessels went trolling and caught over 726,000 lb of pelagic fish. There are currently no active longline vessels based out of Guam. Purse seine vessels do not fish or land fish into Guam but may transship their catch in the EEZ around Guam to other vessels for processing in other countries. A 50-nm large vessel prohibited area exists for vessels longer than 50 feet in length around Guam.

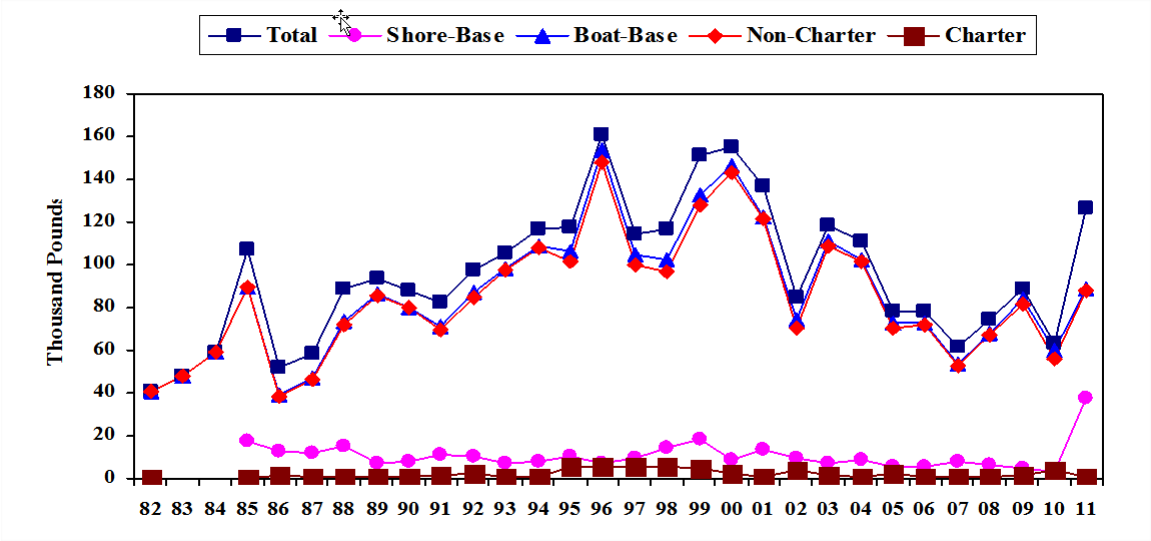
An important segment of the pelagic group is made up of relatively small marina-berthed charter boats that are operated by full-time captains and crews. There are currently 15 civilian charter vessels on Guam and one charter operation run by the U.S. military from Sumay Cove (John Calvo, WPFMC, pers. comm.). Detailed information about the catches by the Guam charter fleet is given in WPRFMC (2012b). Most of the charter fishermen sell a portion of their catch at one time or another, and distinguishing between recreational, subsistence, and commercial fishers is difficult. The primary target of the charter fleet is pelagic fish. In 2010, the charter fleet landed over 60,000 lb of pelagic fish.

Bottomfish fishing around Guam is a combination of recreational, subsistence, and small-scale commercial fishing. There are two distinct bottomfish fisheries on Guam that can be separated by depth and species composition. The shallow water complex (fishing at less than 500 feet deep) makes up a larger portion of the total bottomfish effort and harvest. More than 80% of the total shallow-water marine resources harvested in Guam are taken within three miles from shore primarily because the offshore banks are less accessible.

The majority of bank-fishermen are commercial because of the distance the banks are from the island and the open water nature of the area. When the banks are fished, two methods are used: bottomfishing by hook-and-line and jigging at night for bigeye scad (*Selar crumenophthalmus*).

The majority of the participants in the bottomfish fishery operate vessels less than 25 feet long and primarily target the shallow-water bottomfish complex both around Guam and further offshore. The commercially-oriented high liner vessels are generally longer than 25 feet, and their effort is usually concentrated on the deep-water bottomfish complex. Guam's bottomfish fishery can be highly seasonal, with effort significantly increasing when sea conditions are calm, generally during the summer months. During these periods, bottomfish fishing activity increases substantially on the offshore banks (in federal waters), as well as on the east side of the island (in territorial waters), a more productive fishing area closer to shore that is inaccessible to small boats during most of the year due to rough seas. Recent catch information for the different bottomfish sectors in Guam is provided in Figure 3.

Figure 3. Guam bottomfish catch estimates, 1982-2011




Source: WPFMC 2012.

Fishing for crustaceans around Guam mostly occurs in inshore territorial waters, usually in a subsistence or recreational context, so detailed information is not available. It is estimated that a total of 1,092 and 1,980 pounds of lobsters were harvested in 2010 and 2011, respectively, with a value of $4,010-$7,375[10]. There is no deepwater shrimp fishery in Guam.

Given the estimate of Guam's total economic activity as $3.4 billion in 2002 (First Hawaiian Bank, 2006), commercial domestic fisheries comprise a relatively small portion of Guam's economy. Between 1980 and 2006, the ex-vessel value of domestic commercial landings ranged from about $179,000 in 1980 to $1.33 million in the year 2000; in 2006, the 328,770 lb of fish landed commercially were worth about $710,720 (WPacFIN, 2007). Pelagic species dominate the commercial landings throughout the time series, although since 1998, reef fish have formed an increasing proportion of the total commercial fish landings.

Although the contribution from fishing to Guam's economy appears small, fishing in Guam has substantial social and cultural value. As stated in a strategic planning document, Vision 2001/2005, "The commercial value of the industry is just one component of the importance fisheries play in the lives of Guam's people. It is estimated that the prehistoric settlement of Guam occurred 2500 years ago, and throughout the history of the island, there is perhaps no other natural resource that is as fundamentally critical to the quality of life for the people of Guam as the benefits we derive from our surrounding ocean; it is the island marine resources which provide the greatest natural potential for economic self-sufficiency (Government of Guam, 2001)."

[10] http://www.pifsc.noaa.gov/wpacfin/guam/dawr/Pages/gdawr_data_3.php

Fishing in Guam continues to be important not only in terms of contributing to the subsistence needs of the indigenous Chamorro population but also in preserving their history and identity. Fishing has assisted Chamorro and immigrant cultures to keep alive what remains of the maritime attributes of their traditional cultures, and maintains their connection to the sea and its resources.

A high personal value is placed on sharing one's fish catch with relatives and friends and the social obligation to share one's fish catch extends to part-time and full-time commercial fishermen (Amesbury et al., 1989). In a study conducted by Rubinstein (2001), nearly all fishermen (96 percent) reported that they share fish regularly, giving fish to family (36 percent), friends (13 percent) or both (47 percent). A majority (53 percent) said they did not give fish to people other than family and close friends; of those who did occasionally, the main recipients were church fiestas (32 percent) and other church events or organizations (20 percent).

A 2005 survey of Guam households found that out of the fish consumed by households, a little more than half (51%) was purchased at a store or restaurant and 9 percent was purchased at a flea market or from a roadside stand. Nearly one-quarter (24 percent) of the fish consumed had been caught by the respondent or an immediate family member, and an additional 14 percent had been caught by a friend or extended family member (van Beukering et al., 2007).

Given the small size of Guam, dispersal of fishery participants and extensive community networks for sharing locally caught fish, it is likely that the social benefits of fishing are experienced by most of the island's long-term residents. It is also likely that extensive social networks are created by or sustained through sharing of fish. Fish play a role not only as a source of protein but in allowing community members to maintain culturally important events and identities. The people of Guam participate in many banquets throughout the year associated with neighborhood parties, wedding and baptismal parties, wakes and funerals, and especially the village fiestas that are held to celebrate village patron saints (Pinhey et al., undated). All of these occasions require large quantities of fish and other traditional foods (Rubenstein, 2001). Sometimes fish are sold to earn money to buy gifts for friends and relatives on important Catholic religious occasions such as novenas, births and christenings, and other holidays (Amesbury, et al., 1989). Even when fish are purchased informally by friends, neighbors or relatives of the fisherman, the very personal nature of the marketing tends to restrain the asking price.

Immigrants from the Federated States of Micronesia (FSM) and Palau also require fish for a variety of cultural events, and they frequently bring them from Palau and FSM because those fish are preferred over the same species caught around Guam.

Rubinstein (2001) found three dominate motivations for offshore fishing when he surveyed a sample of relevant fishermen. The predominant motivation (65% of respondents) emphasized the personal enjoyment derived from fishing; a number of respondents within this category, especially Chamorros and other Micronesians, emphasized the sense of cultural identity they derive from fishing. A second motivation

(18 %) was consumption of fish by the family. The third motivation (16%) was income derived from fishing. More than half (51%) of the respondents claimed multiple motivations, and, frequently, respondents who indicated that recreation was their primary motivation said they provided fish to family and friends.

Annual seafood consumption in Guam is estimated to be about 60 pounds per capita (Amesbury, 2006). A large proportion of fish consumed on Guam is believed to be imported. A recent survey found that 57 percent of the fish consumed by Guam households reportedly came from inside or outside Guam reefs, while 43 percent was reported as being imported from the U.S. mainland or other Pacific islands (van Beukering et al., 2007). The total proportion of imported fish consumed on Guam may be higher because restaurants and hotels (and perhaps military bases) are assumed to rely more on imported fish.

Westernization of Guam, particularly since World War II, not only completed the change from a subsistence to a wage-based economy, but contributed to dramatic changes in eating patterns, including lower seafood consumption. Changes in diet have contributed to significantly higher rates of obesity (Pinhey et al.,1997a) and a greater prevalence of diabetes mellitus among Guam's indigenous Chamorros (Pinhey et al., 1997b). Seafood consumption is lower than it was historically, as is probably the sharing of fish and its role in maintaining social networks. While some families in the less urbanized areas continue to supplement their diet by fishing and farming, no existing communities can be said to be completely dependent on local fishing as a source of food.

The cultural importance and tradition of fishing are being passed on to younger residents not only through continued family practices but also through more organized mechanisms. One of these is the Annual Fisherman's Festival "Gupot Y Peskadot" at the Fisherman's Co-op building. This day is designed as a family experience, with seafood tasting and a variety of ocean-themed activities for children. The annual Kids' Fishing Derby, first held in 1994, continues to be sponsored by Guam Division of Aquatic and Wildlife Resources. As described previously, pelagic fishing during the prehistoric period and the first 200 years of the Spanish period depended on the flying proa, the large oceangoing sailing canoe (Amesbury, 2006). In the early 17th century, a Spaniard described the Chamorros as "…the most skilled deep-water fishing people yet to have been discovered" (Driver, 1983). Once the Spanish destroyed the Chamorro sailing canoes in the early 1700s, however, the Chamorro people no longer fished for pelagic species on a large scale (Amesbury et al., 1989; Amesbury, 2006).

After World War II, cash was scarce but as the economy improved in later years, local people began to buy boats and outboard motors for trolling (Amesbury, 2006). As recently as the early 1970s, relatively few people in Guam fished offshore, even on the protected leeward side of the island, because boats and deep-sea fishing equipment were prohibitively expensive for most people (Jennison-Nolan, 1979). An economic boom that began in the late 1980s and continued through most of the 1990s led to an increase in the number of small fishing boats which can be towed by trailer and that are less than 30 ft in length (Amesbury, 2006). During that period, Guam developed a small boat fishery that

conducts trolling and bottomfishing mostly within 30 miles of shore. Offshore fishing typically involves small boats and 1- to 2-day fishing trips. Five pelagic species made up 90–95 percent of the trolling catch: mahimahi, skipjack tuna, wahoo, blue marlin and yellowfin tuna during the period 1980–2005 (Amesbury, 2006).

A study of pelagic fishermen, which collected information from 340 separate fishing trips by 97 fishermen (Rubinstein, 2001), provides insight into Guam's small boat fishing. The sample from that study was believed to reflect the socio-cultural and geographic diversity of Guam, as well as the unique characteristics of the fishers as a subset of Guam's general population. The geographic distribution of interviewees included residents of 16 villages. The mean length of village residence was 17 years, indicating a fairly long-term population, although the range was from less than 1 year to 69 years. All but two were men, and 37 percent of the men and the two women were not Pacific Islanders. Many of the interviewees reported using more than one fishing method during a single trip, often trolling and bottomfishing on the same outing. While trolling was the most common method of fishing, occurring on 70 percent of the trips, bottomfishing occurred on 30 percent of all trips. Almost three quarters of the fishermen were either sole owners or co-owners of a boat, of which 20-footers with outboards were the most common boats owned (Rubenstein, 2001).

When asked whether they sell fish, how often, and how much they earn from selling fish, more than half of the fishermen (58 percent) reported that they sell portions of their catches. Their answers reveal a bimodal distribution reflecting two different motivations for selling. At the lower end of the range, fishermen who sold fish one to four times per month (53 percent) were mostly seeking to recover some of the cost of fishing and boat ownership. At the upper end, those who sold fish eight or more times per month (36 percent) were more likely selling to make a profit. The median monthly earnings from fish sales was $300; and, as fish are sold three times per month (median), Guam fishermen were selling an average of $100 of fish per trip, or between 36 and 50 pounds of fish, according to average market prices in FY 2001 (Rubenstein, 2001).

The majority of fishermen (69 percent) earned less than $500 a month from fish sales and were categorized as primarily recreational or subsistence fishers. A number of fishermen reported that infrequent fish sales subsidized the cost of fishing equipment and fuel. Finally, the 22 percent of pelagic fishermen who earned more than $1,000 per month were viewed primarily as commercial fishermen who relied on fishing for their income (Rubenstein, 2001). Considering that WPacFIN commercial landings data show a decline in inflation-adjusted revenue per trolling trip since the early 1980s (WPacFin, 2007), and although revenues have been relatively stable since 1996, the fact that commercial trolling continues indicates other income is available to commercial fishing households, and that there is a reliable market for the fish.

Based on creel surveys of fishermen, only about one quarter to one third of Guam's inshore catch is sold. The remainder enters non-commercial (informal) distribution channels (Knudson, 1987). Reef and bottomfish continue to be important for social obligations, such as fiestas and food exchange with friends and families. One study found

a preference for inshore fish species in noncommercial exchanges of food (Amesbury et al., 1989). The social obligation to share one's fish catch extends to part-time and full-time commercial fishermen. Such gifts are often reef fish or shallow-water bottomfish (Amesbury et al., 1989). Even when fish are purchased informally by friends, neighbors or relatives of the fisherman, the very personal nature of the sales interaction tends to restrain the price asked (WPRFMC, 2003).

Domestic fishing on Guam supplements family subsistence, which typically involves a combination of small scale gardening, ranching and wage work (Amesbury et al., 1989). According to the researchers, the availability of economic activities such as part-time fishing is among the major reasons that Guam has not experienced more social problems during times of economic hardship and increased unemployment. The subsistence component of the local economy is thought to have gained significance in recent years with the downturn in Guam's major industries and increasing unemployment.

Fishing in Guam continues to be important not only in terms of contributing to the subsistence needs of the Chamorro people and other residents of Guam, but also in terms of preserving their history and identity. Fishing assists in perpetuating traditional knowledge of marine resources and maritime heritage of the indigenous cultures.

Fishing around the CNMI

Because participants in CNMI's fisheries are not concentrated in specific locales but rather reside in towns throughout the populated islands (Hamnett et al., 1998), the Council elected to identify the islands of CNMI as a single fishing community (64 FR 19067, April 19, 1999). This scale, as well as CNMI's history, culture, geography and political relationship with the U.S., create a vastly different fishing community than those typical of the continental U.S. The majority of fishermen in the offshore fisheries around CNMI are either Chamorro or Carolinian (Hamnett et al., 1998).

The Mariana Islands were first settled about 3,000 years ago, but their present social and demographic structure is largely the result of colonization by outsiders as well as immigration that has occurred over the last 300 years. Fishing has occurred throughout the island's history. Archaeological evidence reviewed by Amesbury et al. (1989) suggested "…an apparent tendency throughout prehistory and historic times for Mariana Island native groups to have relied more on inshore fish species than offshore ones ..." However, evidence of pelagic fishes including mahimahi, tuna and other fish have been found in archaeological sites. In the late 1880s, the Spanish Governor of the Mariana Islands wrote of Guam that "inside the reef (indigenous people) catch different varieties (of fish) all year long." The Governor also noted the importance of the seasonal arrival of rabbitfish (manahak) in inshore areas ("the populace then appears en masse to fish"), which remains an important event in Guam's reef fishery in modern times.

Prior to the arrival of Europeans in the Mariana Islands in the sixteenth century, the Chamorros, as the original inhabitants of those islands are called, possessed large sailing canoes that enabled them to fish on offshore banks and seamounts (Amesbury et al.,

1989). The manufacture of these canoes was monopolized by the matua (noble caste) who were also the deep-sea fishermen and inter-island traders within Chamorro communities (Jennison-Nolan, 1979). In the early seventeenth century a Spanish priest described the Chamorros as "…the most skilled deepwater fishing people yet to have been discovered" (Driver, 1983). Other evidence of the skill of native Chamorro sailors were records of them being extremely adept boat handlers. Their boats ("proas" or "flying proas") were highly regarded as excellent light and fast sailing vessels. Two recorded examples recorded by Dampier in 1937 (cited in Amesbury et al., 1989) involve such vessels sailed for 90nm and returned within 12 hours; and of vessels that sailed to Manilla (1,200 nm away) in 4 days.

Spanish colonizers destroyed the large oceangoing canoes of the Chamorros during the 1700's and worked to concentrate Chamorros in a few settlements on Guam, thereby facilitating colonial rule as well as religious conversion (Amesbury et al., 1989). After the enforced demise of the sailing canoes, fishing for offshore species was no longer possible. By the mid-nineteenth century, there were only 24 outrigger canoes on Guam, all of which were used only for fishing inside the reef (Myers, 1993). Another far-reaching effect of European colonization of the Mariana Archipelago was a disastrous decline in the number of Chamorros, from an estimated 40,000 individuals in the late seventeenth century to approximately 1,500 a century later (Amesbury et al., 1989).

In the 1900s, fisheries increased in importance during the occupation of the Marianas by the Japanese. For example, from 1922-1942, harvesting and processing bonito (skipjack) and yellowfin tunas was a major economic activity for several Japanese companies and employed hundreds of local residents. Skipjack catches by Japanese fishing in waters around Saipan, Rota, and Tinian were highest in 1936, when approximately 3,700 mt were harvested by the pole-and-line fishery. Yellowfin harvests averaged less than 500 mt during the Japanese occupation period (Higuchi, 2007). Fisheries in the Mariana Islands in the period of 1941 to 1942 collapsed due to the War in the Pacific during WWII (Amesbury et al., 1989).

Higuchi compiles information from subsequent governments in the Mariana Islands about fishing history in the Marianas in the 1900s. By 1984, CNMI fishing was largely a semi-subsistence activity supplemented by three or four small scale commercial operations (1984 report, cited in Higuchi). There were an estimated 150 sport boats, and fewer than ten 32- to 40-foot commercial boats. By 1986, there were 238 vessels on Saipan and commercial fish landings were increasing. Orbach (1980, cited in Amesbury, et al.,1989), recorded 70 full time commercial fishermen in the CNMI and 90-100 part time commercial fishermen. Orbach also reported that most of the commercial fishermen were reported to be Chamorro, but Carolinians fished using larger vessels and tended to have traditions and family and community structure that support their participation in offshore fishing. Other nationalities participating in small boat fisheries were small numbers of Caucasians, and one person of Palauan, Filipino, and Japanese descent (Kasaoka 1989 (cited in Amesbury et al., 1989, page 45).Thirty three were male and one was female.

In the early 1980s, U.S. purse seine vessels established a transshipment operation at Tinian Harbor. The CNMI is exempt from the Jones Act, which requires the use of U.S.-flag and U.S built vessels to carry cargo between U.S. ports. The U.S. purse seiners took advantage of this exemption by offloading their catch at Tinian onto foreign vessels for shipment to tuna canneries in American Samoa. In 1991, a second type of tuna transshipment operation was established on Saipan (Hamnett and Pintz, 1996). This operation transshipped fresh tuna caught in the Federated States of Micronesia from air freighters to wide-body jets bound for Japan. The volume of fish flown into and out of Saipan was substantial, but the contribution of this operation to the local economy was minimal (Hamnett and Pintz, 1996).

The Pelagics FEP (WPFMC 2009d) contains detailed information on the fisheries of CNMI and some of that information is provided here as background. Currently, the domestic fishing industry is mostly composed of a small boat fishery targeting pelagics, bottomfish, and coral reef species and including many part-time commercial participants. With the exception of the purse seine support base on Tinian (not currently operational for economic reasons), the CNMI has never had a large infrastructure dedicated to commercial fishing. The harvest of pelagic species by CNMI-based vessels has always been small, around 100 metric tons annually, caught with trolling gear.

CNMI's pelagic fishery occurs primarily from waters off Rota Island to the island of Farallon de Medinilla, which is north of Saipan (see Figure 2). The majority of boats in the local fishing fleet are small outboard engine-powered vessels. The pelagic fishing fleet consists primarily of trolling vessels less than 24 ft in length which generally take one-day trips within 30 nm around the islands to target skipjack tuna. These vessels have a limited travel and fishing range and fishery participants necessarily rely on catches from waters within their reach. In 2011, a longline fishing prohibited area was established out to 30nm from shore around the islands of the CNMI (76 FR 37287; June 27, 2011). Currently, there are two longline fishing vessels located on Saipan fishing in waters around the Mariana Archipelago, beyond 30 nm from shore but within the EEZ that target skipjack, bigeye and yellowfin tuna. As there are fewer than three vessels, harvest levels are confidential and by law cannot be provided.

Both supply and demand conditions direct the majority of domestic commercial fishing effort in CNMI toward reef fish and bottomfish. CNMI's bottomfish fishery still consists primarily of small-scale local boats engaged in local commercial and subsistence fishing, although a few (generally <5) larger vessels (30–60 ft) usually participate in the fishery. In terms of participation, the bottomfish fleet consists primarily of vessels less than 30 ft long that are usually limited to a 50-nm radius from Saipan. The bottomfish fishery occurs primarily around the islands and banks from Rota Island to Zealandia Bank north of Sarigan and can be broken down into two sectors: deep-water (>500 ft) and shallow-water (100–500 ft) fisheries. In 2010, there were 28 fishermen using small vessels and when catching bottomfish and they tended to be more likely to target the shallow-water species. There is less seasonality in these fisheries, and they require shorter offshore trips; moreover, their market value is often much higher than that of the commonly caught pelagic fish. In 2010, approximately 23,000 lb of BMUS were landed commercially in

the CNMI. A 50-nm large vessel prohibited area exists for bottomfish longer than 40 feet in length around the southern islands of the CNMI and around 10nm from Alamagan Island.

The CNMI crustacean fishery primarily targets spiny lobster in nearshore waters with reported catches taken almost exclusively within the 0-3 nm zone of the inhabited southern islands by hand harvesters with scuba or free diving. Beyond three nm, the bathymetry in most locations drops off steeply. These lobster habitats are relatively small and difficult to access. Anecdotal information indicates that in the northern islands on the reef surrounding Farallon de Medinilla (FDM), bottomfish fishermen that anchor for the night occasionally dive for lobsters in shallower waters. Anchoring and diving at FDM is primarily for personal consumption and occurs exclusively within 3 nm of shore.

Orbach (1980) noted that the fisheries in CNMI were inextricably involved with the lifestyles and plural-occupational patterns of fishery participants. Part-time fishing performed in conjunction with other activities continues to have a prominent place in the socioeconomic adaptations of local residents. People fish for bottomfish and other species to supplement their family subsistence, which involves a combination of small scale gardening and wage work (Amesbury et al., 1989). Orbach suggests that the availability of economic activities such as part-time fishing is among the major reasons that CNMI has not experienced more of the problems of other island entities such as out-migration or high rates of crime and juvenile delinquency.

Fishing in the CNMI continues to be important not only in terms of contributing to the subsistence needs of the people but also in terms of preserving their history and identity. Fishing has assisted in perpetuating the traditional knowledge of marine resources and maritime traditions of both the Chamorro and Carolinian cultures and has helped them maintain their connection to the sea and its resources.

Community Dependence on Fishing and Seafood in Guam and CNMI

In-depth analyses of historical and contemporary importance of fisheries to the indigenous peoples of Guam and the Northern Mariana Islands have been published (Amesbury et al., 1989; Amesbury, 2003; Iversen et al., 1990). Over the centuries of acculturation, beginning with the Spanish conquest in the late seventeenth century, many elements of traditional Chamorro and Carolinian culture in Guam and the Northern Mariana Islands were lost. But certain traditional values and attitudes remain and have been melded with elements of Western culture that are now a part of local life and custom. For example, high value is still placed on sharing one’s fish catch with relatives and friends. A strongly enduring cultural dimension related to offshore fishing is the high value placed on sharing of the catch, and the importance of gifts of fish to relatives and friends. Hensley and Sherwood (1993) note that the traditional practice of sharing the catch of atulai (*Selar crumenophthalmus*) from a surround net continues today, with equal portions given to the owner of the net, the village where the fish were caught, and the group that participated in the harvest.

Sometimes fish are sold in order to earn money to buy gifts for friends and relatives on important Catholic religious occasions such as novenas, births and christenings, and other holidays (Amesbury et al., 1989).

The social obligation to share one's fish catch extends to part-time and full-time commercial fishermen. Such gifts are often reef fish or shallow-water bottomfish (Amesbury et al., 1989). Even when fish are purchased informally by friends, neighbors or relatives of the fisherman, the very personal sales interaction tends to restrain the price asked (WPRFMC, 2003).

Rubinstein (2001) asked respondents to indicate to whom they regularly give fish. Nearly all fishermen (96 percent) reported regularly giving fish to family (36 percent), friends (13 percent), or both (47 percent). Most fishermen (53 percent) said they do not give fish to people other than family and close friends; of those who did occasionally, the main recipients were church fiestas (32 percent) and other church events or organizations (20 percent).

In addition, the people of the Mariana Archipelago participate in many banquets throughout the year associated with neighborhood parties, wedding and baptismal parties, and especially the village fiestas that follow the religious celebrations of village patron saints. All of these occasions require large quantities of fish and other traditional foods (Rubinstein, 2001).

### 3.1.2 Overview of the Marianas Trench Monument

Presidential Proclamation 8335 established Marine National Monuments around the three northernmost islands in the Mariana Archipelago (the Islands Unit), and at submerged seamounts (the Volcanic Unit), and at the Mariana Trench (the Trench Unit) (Figure 2). The following statement is taken directly from President Bush's Proclamation establishing the Marianas Trench Marine National Monument and describes the resources the monument is intended to protect:

> *"The Mariana Trench is approximately 940 nm long and 38 nm wide within the United States Exclusive Economic Zone and contains the deepest known points in the global ocean. The Mariana Volcanic Arc contains objects of scientific interest, including the largest active mud volcanoes on Earth. The Champagne vent, located at the Eifuku submarine volcano, produces almost pure liquid carbon dioxide. This phenomenon has only been observed at one other site in the world. The Sulfur Cauldron, a pool of liquid sulfur, is found at the Daikoku submarine volcano. The only other known location of molten sulfur is on Io, a moon of Jupiter. Unlike other reefs across the Pacific, the northernmost Mariana reefs provide unique volcanic habitats that support marine biological communities requiring basalt. Maug Crater represents one of only a handful of places on Earth where photosynthetic and chemosynthetic communities of life are known to come together. The waters of the archipelago's northern islands are among the most biologically diverse in the Western Pacific and include the*

*greatest diversity of seamount and hydrothermal vent life yet discovered. These volcanic islands are ringed by coral ecosystems with very high numbers of apex predators, including large numbers of sharks. They also contain one of the most diverse collections of stony corals in the Western Pacific. The northern islands and shoals in the archipelago have substantially higher large fish biomass, including apex predators, than the southern islands and Guam. The waters of Farallon de Pajaros (also known as Uracas), Maug, and Asuncion support some of the largest biomass of reef fishes in the Mariana Archipelago."*

Regardless of which alternative is selected, commercial and non-commercial fishing will continue to be allowed in the Volcanic and Trench Units (except Volcanic Units within the Islands Unit boundary) and will continue to be managed under the FEP without change. Pelagic troll and handline and bottom fishing currently takes place on seamounts in the Volcanic unit; however, most of this fishing takes place in areas closer to the population centers.

The proposed action will not affect fishing in the Volcanic or Trench Units, so there would not be any environmental impact on those areas and these two units will not be considered in detail in this EA.

#### *3.1.2.1 Overview of the Marianas Trench Monument Islands Unit*

##### 3.1.2.1.1 Asuncion Island

Figure 4. Photo of Asuncion Island.
Source: NOAA

Asuncion Island (Figure 4) is the closest of the three islands in the Island Unit to populated islands to the south. It has a land area of approximately 7.86 $km^2$ and is uninhabited. It last erupted in 1924 (Mueller-Dombois and Fosberg, 1998). Asuncion is the steepest island of the northern volcanic Mariana Islands; its steep sides rise to an elevation of 857m. The island was intermittently inhabited and the lowest south and

southwest slopes and flat areas were planted with coconuts (Mueller-Dombois and Fosberg, 1998). Asuncion is part of a protected reserve established under the CNMI Constitution and managed by the CNMI Division of Fish and Wildlife for the purpose of preservation and protection of natural resources[11]. The island is abundantly vegetated and supports a native tropical dry forest dominated by the tropic deciduous tree *Terminalia* (Indian almond tree), as well as *Miscanthus* grassland (Mueller-Dombois and Fosberg, 1998). Coastal thickets support *Pandanas, Pisonia* and other woody plants. A mixed fern, grass, and low scrub complex extends to the summit crater and down to the north and northeast bluffs. The island supports 25 native birds and the native Mariana fruit bat, an endemic subspecies listed as threatened. The endemic Slevin's skink (*Emoia* slevini) is present on Asuncion. Rats are also reported to be present on the island.

Underwater, the flanks of Asuncion are steep and descend to approximately 2,300 m (Brainard et al., 2012). The east coast faces the winds and waves and these may influence recruitment of benthic organisms. Surveys conducted during 2006 and 2007 found that the average cover of live hard corals on Asuncion's fore-reefs was 16%. Coral cover, crustose coralline red algal cover, and macroalgae diversity are highest along the west coast.

In the southwest quadrant of the offshore area, a low shelf less than 100m deep is composed of a number of terraces: one in less than 30m of water, a larger shelf from 100-120m and a series of successively deeper narrow shelves that are at the crest of underwater ridges (see Brainard et al., 2012, Figure 15.2a). Towed-diver surveys revealed substrates of volcanic sand, hard substrates that support low levels of live coral in the northeast region. Around the southeast and south, the surveys recorded sandy areas with boulders on sand, and the southern sand patch located on the extensive shelf area had spur and groove formations, sand flats and boulders on sand. Also in the southern area, researchers found an extensive aggregation of sea pens in soft sediments. To the south, a 100m patch of hard corals was observed. The highest coverage of coral (30.1-60%) was observed in the northwest sector.

Large benthic invertebrates that are sought after for food by Indo-Pacific fishers including giant clams and sea cucumbers were surveyed by NMFS along with sea urchins and the coral eating crown-of-thorns (COT) sea star. In general, there were low densities of these species on fore-reefs compared to other Mariana Archipelago islands.

[11] Terrestrial areas are to be maintained as an uninhabited place and used only for the preservation and protection of natural resources, including but not limited to bird, wildlife and plant species. CNMI Constitution, Article XIV, Section 2 and CNMI Public Law 14-49.

#### 3.1.2.1.2 Maug Islands

Figure 5. Photo of Maug Island.
Source: NOAA

Maug Island is an uninhabited volcanic island composed of three separate islets surrounding the central submerged caldera (Figure 5). The total land area is approximately 2.14 $km^{2.}$ Maug is located approximately 41 km northwest of Asuncion and 67 km southeast of Farallon de Pajaros. The highest elevation is 227 m. The islands have narrow central ridges with steep slopes.

Maug is part of a protected reserve established under the CNMI Constitution and managed by the CNMI Division of Fish and Wildlife for the purpose of preservation and protection of natural resources[12]. The island is volcanically active with hydrothermal vents inside the caldera and active seismic activity. The islands are mainly vegetated with coarse grass and low lying shrubs. Mueller-Dombois and Fosberg (1998) review botanical accounts and report four types of forest communities on East Island: *Hibiscus tiliaceaus* (hau), *Pisonia grandis*, *Pandanus tectorius*, and *Terminalia catappa*. Scattered clumps of sedge and scrub grow on unstable slopes. Twenty-five species of birds are protected including the endangered Micronesian megapode (*Megapodius laperouse Laperouse*) and the white-throated ground dove (*Gallicolumba xanthonura)*. Threats to the native wildlife include several non-native plants, rats, and goats.

Brainard et al. (2012) described fishing activity around Maug as “uncommon”, but the researchers observed diving and fishing during research cruises.

The unusual geomorphology of Maug Island that includes a submerged, flooded caldera with active hydrothermal venting, three steep-walled islets, and three narrow channels, allows it to support a higher diversity of habitats than was found in the other northern

[12] Terrestrial areas are to be maintained as an uninhabited place and used only for the preservation and protection of natural resources, including but not limited to bird, wildlife and plant species. CNMI Constitution, Article XIV, Section 2 and CNMI Public Law 14-49.

islands. Towed diver observations showed areas that support live hard coral coverage of less than 10% except for two areas of silt. At least 26 coral genera were observed at Maug. Localized areas of high coral cover were observed in the west caldera region with means in a range of 75.1%–100% coral cover. High densities of corals have been recorded in the north and east caldera and on the western flanks. Maug supported various red, green and brown macroalgae and turf algae.

The unique feature of Maug is the presence of hydrothermal vents in its caldera. In 2003, CRED divers observed the hydrothermal vent system inside the Maug caldera at an upper depth of 10m below the surface. The water and gases were sampled in 2007. The gas bubbles consist of carbon dioxide which contributes to low (acidic) pH values in the vent system (6.09) compared with the more basic pH of 8.13 in surrounding waters. The vents produced warm water temperatures (48-63 C), and an under-saturated aragonite saturation state which would be harmful to coral development. Although no corals grow inside the vent, live corals were growing only 15m south. Coral coverage measured 67% and was dominated by *Porites* coral.

Giant clams were more abundant at Maug than at other Mariana Archipelago island areas. There were relatively low levels of sea cucumbers and sea urchins. There was a high density of crown of thorns seastars in the west caldera region in areas with high coral cover.

At Maug, snappers (twin spot snapper), and sharks (white-tip reef shark) comprised the majority of the large fish biomass. A large school of bigeye trevally (jacks) was observed in the north region. Other common reef fish included snappers, damselfish, and orange-spine unicornfish. In general, total fish biomass was moderately low compared to estimates from other Northern Mariana Islands. Sharks were rare.

Eleven sightings of derelict fishing gear and five other man-made objects were recorded on Maug reef habitats of both the outer areas and the caldera regions. The gear included fishing lines and a net.

#### 3.1.2.1.3 Uracas (Farallon de Pajaros)

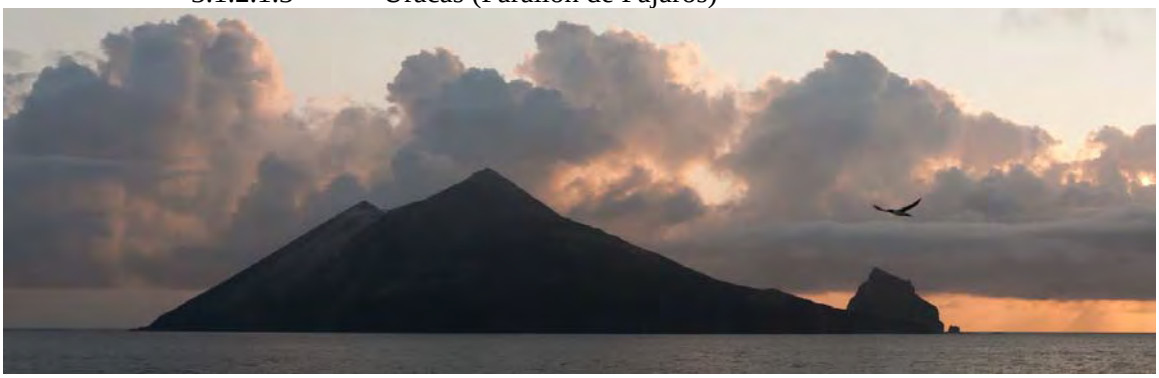


Figure 6. Photo of Uracas (Farallon de Pajaros).
Source: NOAA

Uracas (Farallon de Pajaros) is the northernmost island of the Mariana Islands, located 64 km northwest of the Maug Islands and over 760 km north of Guam (CNMI government website) (Figure 6). The land area covers approximately 2 $km^2$ and the island is uninhabited. The Uracas Island Preserve was established under the CNMI Constitution and is managed by the CNMI Division of Fish and Wildlife for the purpose of preservation and protection of natural resources[13]. The island is the top portion of a large volcano that rises from steep ocean cliffs to a high point of 360m. Much of the surface is covered with lava, cinders and ash. The volcano is active and last erupted in 1967. The island does not support trees and is only slightly vegetated with sedge communities and coastal succulents (Mueller-Dombois and Fosberg, 1998). No rats or feral goats are reported to be present on the island. The Uracas Island Preserve protects 20 species of birds including a number of seabirds, and the endangered Micronesian megapode.

Underwater, the flanks of FDP are steep and descend to more than 2,000 m (Brainard et al., 2012). Overall, NOAA towed diver surveys found low levels of live coral cover. It was particularly uncommon in the northeast and south regions. Much of the habitat was boulders on sand with some patches of rocky reef. The smaller size classes of corals were the most prevalent. NMFS researchers believe the rocky terrain, unstable substrates and high wave energy provide unsuitable conditions for prolonged coral growth. The western area had lower wave activity and higher coral cover. No cases of coral disease were detected on the surveys.

During the first NOAA survey in 2003, macroalgae (larger seaweeds) were important components of the forereef habitats and the mean coverage was 60%; cover was highest in the west region. However, macroalgae cover in subsequent surveys never exceeded 5% (Brainard et al., 2012). In 2007, low macroalgae coverage was observed and total algal cover was made up entirely of turf algae at three sites. The most common macroalgae found were the brown alga, *Lobophora*, and the red coralline alga, *Jania.*

Benthic macro-invertebrate surveys found extremely low daytime macro-invertebrate abundance on forereef habitats around Uracas compared to other areas in the Mariana Archipelago. Giant clams were observed in low numbers and no crown of thorns seastars or sea cucumbers were observed during the surveys. Rock-boring sea urchins (*Echinostrephus* sp.) were the most frequently observed invertebrate at Uracas, but were less abundant than other parts of the Mariana Islands.

To date, divers have noted four locations with derelict fishing lines in waters surrounding Farallon de Pajaros and one sighting of fishing lines in forereef habitat.

[13] Terrestrial areas are to be maintained as an uninhabited place and used only for the preservation and protection of natural resources, including but not limited to bird, wildlife and plant species. CNMI Constitution, Article XIV, Section 2 and CNMI Public Law 14-49.

#### *3.1.2.2 Recent fishing in the Islands Unit*

Kotowicz (2012) conducted a recent survey of Guam and CNMI fishermen to understand fishing in the area now contained within the Islands Unit. She found that from 1979-2010 an estimated 73 trips (or an average of 2.3 trips per year) were made to this area for the primary purpose of fishing. Within the past 10 year, an average of 3.8 trips per year were made. Given methodological challenges associated with this type of study, it is possible that this estimate does not account for some effort. However, trips per year are nevertheless thought to be few. Many other trips were research, charter, and visitation/exploratory that included some fishing. For example, almost all (98%) of the reported 129 total trips from 1939 to 2010 included fishing, regardless of the stated primary purpose of the trip). Only two research trips reported that they didn't fish on their trips. Of the non-research trips where fishing took place, 93% reported bringing back fish to consume and share with family and friends. A little less than one quarter (22%) of the accounts of fishing trips and approximately two-thirds (67%) of trips to visit and/or explore the islands and waters reported selling fish only to recover expenses for trip costs, not for profit. Overall, 51% of accounts of trips reported selling fish for profit including 77% of fishing trips, 20% of research trips and three quarters of charter trips for purposes other than tourism (Kotowicz, 2012). It was estimated that only two vessels in Saipan had recently traveled to the Islands Unit; however, there are several other vessels that have the capability to travel the long distance to the area but there is no information as to whether or not they have done so recently. The distance to the Islands Unit from Saipan and associated fuel/supply costs are believed to restrict the number of trips made per year.

Commercial fishing in the Monuments was prohibited by Proclamation in 2009. Prior to the Monument designation, commercial fishing did occur at relatively low levels; however, data from these fishing trips cannot be reported due to confidentiality restrictions on reporting information for fewer than three vessels.

Participants in the Kotowicz (2012) survey indicate a common sentiment about "commercial" fishing in the Northern Mariana Islands in that motivations for trips are not strictly for financial profit but represent a broader motivation that includes fishing in the northernmost waters and bringing the catch back to Saipan. The study found that important roles that trips to the Northern Mariana Islands play in the community include transferring supplies and people up and down the island chain, the opportunity for an adventure to a remote area, and communicating with people from the upper and lower parts of the island chain (Kotowicz, 2012).

Kotowicz (2012) indicates that on trips to the Islands Unit waters, fishing often included trolling for pelagic fish, bottom fishing with rod and reel, and spear fishing for reef fish all in one trip, catching a great variety of types of fish. Many of the crew and fishermen on trips to the Islands Unit waters are former residents of the communities in the Northern Mariana Islands. Practically, their experience in the Northern Mariana Islands was valuable on fishing trips but, additionally, many of them remarked that they liked to be able to return to these waters since it was a way of visiting their homes and they could bring back fish from those waters to share with friends and family. Boat owners

consistently reported that substantial amounts of fish were shared with family and community, even on trips where the goal was to make a profit from fishing (Kotowicz, 2012). Many fishing operations went out of business because travelling all the way to the Islands Unit waters requires a risky financial investment in fuel and supplies for the long trip without the assurance of making a profit given a limited local market for fish.

A limited amount of catch was landed from commercial and non-commercial fishing in the Islands Unit before being designated a monument because it is expensive to travel (roughly 800 nm round trip) to fish in those areas (Figure 2). Commercial fishing was prohibited in the Islands Unit in 2009 through the Presidential Proclamation and in June 2011, a 30 nm (56 km) longline prohibited area was established around the CNMI through a separate federal action (76 FR 37287, June 27, 2011). Prior to these prohibitions there was little commercial fishing activity in the Islands Unit. Commercial fishing is still allowed in the Volcanic and Trench Units (except for in those volcanic units that are in the Islands Unit boundary). Bottomfish fishing occurs on some banks in the Volcanic Unit in areas closer to the inhabited islands.

#### 3.1.3 Potentially affected target, non-target, and bycatch species in the Islands Unit

Management unit species (MUS) were established under the Marianas Archipelago FEP and the Pacific Pelagic FEP, and these occur within all units of the Marianas Trench Monument. For the reader's interest, a complete list of MUS and their management under the FEPs may be found in the Pelagics and Mariana Archipelago FEPs (WPFMC, 2009b, 2009d). MUS lists contain target, non-target and bycatch species that are typically targeted by the fisheries described in sections 3.1.1 and 3.1.2.2 of this document.

The pelagic fish that may be targeted in the Islands Unit using trolling gear include skipjack, yellowfin tuna and possibly bigeye tuna, mahimahi, and wahoo. Of the pelagic species most likely to be caught by non-commercial fishers, bigeye tuna and yellowfin tuna are the only fish stocks that are of management concern. The bigeye tuna stock in the western and central Pacific Ocean (WCPO) is currently experiencing overfishing but is not overfished[14] (Harley et al., 2010). Although yellowfin tuna in the WCPO is not experiencing overfishing and is not overfished, the Western and Central Pacific Fisheries Commission (WCPFC) is concerned about the stock assessment status since the stock is estimated to be approaching the maximum sustainable yield based fishing mortality and biomass thresholds (Langley et al., 2011). These species have been assigned commercial longline catch limits and are monitored domestically and internationally to keep catches sustainable.

Coral reef ecosystem species (CRE) that may be targeted in the Islands Unit include jacks, a variety of reef fishes including wrasses, parrotfishes, lobsters, and other CRE MUS. Fish would be caught by the use of spears or by pole and line fishing from shore. The CNMI government prohibits spearing lobsters so lobsters would be caught by hand.

[14] MSFCMA defines "overfishing" and "overfished" as "a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the maximum sustainable yield on a continuing basis.

Bottomfish fishing could occur in the Islands Unit under the proposed action. All of these species are subject to annual catch limits (ACLs) and catches are subject to a post-season review to evaluate the catches as compared with established annual catch limits. ACL specifications for CRE and BF in the CNMI are provided in Table 3. Precious corals are not likely to be harvested in the Monument areas, so they are not discussed further.

Table 3. Current Annual Catch Limit Specifications for Crustacean, Coral Reef Ecosystem, and Bottomfish Management Unit Species in the CNMI.

| | Guam (lb per year) | CNMI (lb per year) |
|---|---|---|
| Bottomfish Stock Complex | 48,000 lb | 182,500 lb |
| Crust: Kona Crab | 1,900 lb | 6,300 lb |
| Crust: Spiny Lobster | 2,700 lb | 5,500 lb |
| Crust: Slipper Lobster | 20 lb | 60 lb |
| Crust: Deepwater Shrimp | 48,488 lb | 275,570 lb |
| Coral Reef Ecosystem Species : | | |
| Acanthuridae (surgeonfish) | 70,702 | 6,884 |
| Algae | 5,329 | / |
| *Bolpometopon muricatum* (bumphead parrotfish) | 797 (with CNMI) | 797 (with Guam) |
| Carangidae (jacks) | 45,377 | 21,512 |
| *Cheilinus undulates* (humphead (Napoleon) wrasse) | 1,960 | 2,009 |
| Carcharhinidae (reef sharks) | 6,942 | 5,600 |
| Holocentridae (squirrelfish) | 8,300 | / |
| Kyphosidae (chubs/rudderfish) | 13,247 | / |
| Labridae (wrasses) | 5,195 | / |
| Letherinidae (emperors) | 38,720 | 27,466 |
| Lutjanidae (snappers) | 17,726 | 3,905 |
| Molluscs (turbo snail; octopus; giant clams) | 21,941 | 4,446 |
| Mugilidae (mullets) | 15,032 | 3,308 |
| Mullidae (goatfishes) | 25,367 | 3,670 |
| *Selar crumenophthalmus* (atulai or bigeye scad) | 56,514 | 7,459 |
| Serranidae (groupers) | 17,958 | 5,519 |
| Scaridae (parrotfishes) | 28,649 | 3,784 |
| Siganidae (rabbitfish) | 26,120 | 2,537 |
| All Other CREMUS combined | 82,214 | 9,820 |

The established accountability measures (AMs) require the Council to conduct a post-season accounting of the annual catch for each stock complex relative to its ACL immediately after the end of the fishing year. If the landings of any stock complex exceed

the specified ACL in a fishing year and affect the sustainability of that stock or stock complex, the Council will take action to correct the operational issue that caused the ACL overage. This could include a downward adjustment to the ACL for that stock complex in the subsequent fishing.

Fish stocks, including crustaceans and bottomfish, that are managed under the MUS lists for the Mariana Archipelago are considered healthy and are not overfished or experiencing overfishing. All current fisheries in the archipelago in general, and the Islands Unit, in particular, are considered sustainable.

### 3.1.4 Potentially affected protected resources

Sea Turtles

Five listed sea turtles are believed to occur in the Mariana Islands. It is illegal to take (including catch) any listed sea turtle incidental to fishing activities unless authorized to do so under an incidental take statement. Sea turtles that occur in the Mariana Islands Unit include threatened olive ridley (*Lepidochelys olivacea*) and green turtles (*Chelonia mydas*), endangered leatherback (*Dermochelys coriacea*) and hawksbill (*Eretmochelys imbricata*) turtles, and the endangered North Pacific Distinct Population Segment of loggerhead turtles (*Caretta caretta*). Sea turtles are highly migratory, or have a highly migratory phase in their life history (NMFS, 2001).

Based on nearshore surveys conducted jointly between the CNMI–DFW and NMFS around the southern Mariana Islands (Rota and Tinian 2001; Saipan 1999), Kolinski (2001) estimated 1,000 to 2,000 green sea turtles forage in these areas. The green sea turtle is a traditional food of the native population and although harvesting them is illegal, divers have been known to take them at sea and others have been taken as nesting females (NMFS and USFWS, 1998). Nesting beaches and seagrass beds on Tinian and Rota are in good condition but beaches and seagrass beds on Saipan have been impacted by hotels, golf courses and general tourist activities.

Nesting surveys for green sea turtles have been undertaken on Guam since 1973, with the most consistent data collected since 1990. There have been up to 60 nesting females observed annually, with a generally increasing trend over the past 12 years aerial surveys done in 1999–2000 also found an increase in green sea turtle sightings around Guam (Cummings, 2002). The extent of nesting by green turtles in the northern islands is unknown (NMFS and USFWS, 1998a).

Although hawksbill sea turtles have occasionally been seen in the past around the CNMI, they were not observed in a detailed assessment conducted in 1999, nor were they observed in ten aquatic surveys along the shores of Tinian in 1995. According to the 1998 Pacific Sea Turtle Recovery Team Recovery Plan for the hawksbill turtle (NMFS and USFWS, 1998b), there are no reports of hawksbill nesting in the CNMI. This does not rule out the possibility of a few hawksbill nests as nesting surveys on small pocket beaches in remote areas of the CNMI have never been done. A single hawksbill sighting

occurred in 1996 during the detonation of a piece of unexploded ordinance off of Rota. The turtle was recovered near the explosion site and subsequently died of internal injuries that were the result of the blast (Trianni, 1998). One hawksbill sea turtle nest was found in November 1991 on Guam (NMFS and USFWS 1998); however this was highly unusual as nesting individuals are otherwise virtually unknown on Guam (Eldredge, 2003).

According to NMFS (2007), leatherback sea turtles are globally distributed and the adults are the most migratory and wide-ranging of the sea turtles. In the tropics, they are not typically associated with coral reefs, but are occasionally found in deep water near prominent archipelagos. Nothing is known of the dispersal pattern of leatherback hatchlings from Pacific nesting beaches. There are two documented strandings of leatherback turtles in Guam and no reports or observed interactions with fisheries in the Mariana Archipelago. Leatherbacks are occasionally encountered in the pelagic waters around the Mariana Islands, but no nesting has been confirmed in the Mariana Islands. There have been occasional sightings of leatherback turtles around Guam (Eldredge, 2003); however, the extent to which (i.e. preferred location, abundance, seasonality) leatherback turtles are present around the Mariana Archipelago is unknown (WPRFMC, 2007).

A recent loggerhead status review was completed in 2009 and detailed biological information can be found in Conant et al. (2009). Loggerhead turtles in the CNMI and Guam are part of the North Pacific Distinct Population Segment and, based on flipper tag and genetic studies, are distinct from the South Pacific Ocean DPS. Pacific Ocean loggerheads can be found throughout the tropical and temperate oceans, but in the North Pacific, loggerheads are only known to nest in Japan. After an oceanic stage, loggerheads forage in the central and eastern Pacific, eventually returning to reproduce. Areas known to be important to North Pacific Ocean loggerheads are the Kuroshiro Extension Current, the Transition Zone Chlorophyll Front, the East China Sea, and off the Pacific coast of the Baja California peninsula, Mexico. The North Pacific Ocean loggerhead DPS was listed as endangered in 2011. The greatest threat to the North Pacific Ocean DPS is from coastal fisheries off of Baja California and Japan which kill large numbers of loggerhead turtles and the loss of coastal nesting habitat from development and impacts from human activities. Modeling of survival, population growth rate, and threats, showed that all loggerhead DPSs face a potential decline in the future due to the existing additional mortalities relative to the assumed natural survival rates and fertility. The North Pacific Ocean DPS population trend is based on sea turtle nesting surveys; but all indications showed that the population is likely to decline.

There are no known reports of loggerhead turtles in waters around the Mariana Archipelago (WPRFMC, 2007).

Olive ridley sea turtles occur in the CNMI and Guam and are listed as threatened, with the exception of breeding populations in Mexico. Olive ridleys lead a highly pelagic existence (Plotkin, 1994). These sea turtles appear to forage throughout the eastern tropical Pacific Ocean, often in large groups, or flotillas. Olive ridleys generally have a

tropical range; however, individuals do occasionally venture north, some as far as the Gulf of Alaska (Hodge and Wing, 2000). The largest nesting aggregations in the Pacific are along the west coast of Mexico and central America (NMFS and USFWS, 1998e). The post-nesting migration routes of olive ridleys, tracked by satellite tags from Costa Rica, traversed thousands of kilometers of deep oceanic waters ranging from Mexico to Peru and more than 3,000 km out into the central Pacific (Plotkin, 1994). Stranding records from 1990-1999 indicate that olive ridleys are rarely found off the coast of California, averaging 1.3 strandings annually (J. Cordaro, NMFS, pers. comm., 2004, cited in NMFS and USFWS 1998e). At least one olive ridley was reported in Yap, Micronesia in 1973 (Falanruw et al., 1975).

The olive ridley turtle is omnivorous, and identified prey include a variety of benthic and pelagic prey items such as shrimp, jellyfish, crabs, snails, and fish, as well as algae and seagrass (Marquez, 1990). It is also not unusual for olive ridley turtles in reasonably good health to be found entangled in scraps of net or other floating synthetic debris. Small crabs, barnacles, and other marine life often reside on debris and are likely to attract the turtles. Olive ridley turtles also forage at great depths; a turtle has been sighted foraging for crabs at a depth of 300 m (Landis 1965 *in* Eckert et al., 1986).

There are no known reports of olive ridley turtles in waters around the Mariana Archipelago (WPRFMC, 2007). The turtle is rare in the insular Pacific and is not known to nest in the insular Pacific (NMFS and USFWS, 1998e).

Marine Mammals

The following marine mammals are protected under the Marine Mammal Protection Act**,** and may occur in the EEZ around the Mariana Archipelago:

Blue whale (*Balaenoptera musculus*) [Endangered]
Fin whale (*Balaenoptera physalus*) [Endangered]
Humpback whale *(Megaptera novaeangliae)* [Endangered]
Sei whale (*Balaenoptera borealis*) [Endangered]
Sperm whale (*Physeter macrocephalus*)
Dugong (*Dugong dugong*)
Blainville's beaked whale (*Mesoplodon densirostris*)
Bottlenose dolphin (*Tursiops truncatus*)
Bryde's whale (*Balaenoptera edeni*)
Common dolphin (*Delphinus delphis*)
Cuvier's beaked whale (*Ziphius cavirostris*)
Dwarf sperm whale *(Kogia simus)*
False killer whale (*Pseudorca crassidens*)
Fraser's dolphin (*Lagenodelphis hosei*)
Killer whale (*Orcinus orca*)
Longman's beaked whale (*Indopacetus pacificus*)
Melon-headed whale (*Peponocephala electra*)
Minke whale (*Balaenoptera acutorostrata*)

Northern Elephant Seal (*Mirounga angustirostris*)
Pantropical Spotted Dolphin *(Stenella attenuata)*
Pygmy killer whale (*Feresa attenuata*)
Pygmy sperm whale (*Kogia breviceps*)
Risso's dolphin (*Grampus griseus*)
Rough-toothed dolphin *(Steno bredanensis)*
Short-finned pilot whale (*Globicephala macrorhynchus*)
Spinner dolphin (*Stenella longirostris*)
Spotted dolphin (S. *attenuata)*
Striped dolphin (S. *coeruleoalba)*

Endangered cetaceans that have been observed in Mariana Archipelago include the humpback whale, sperm whale, and sei whale (WPRFMC, 2007). Other ESA listed marine mammals that may occur in the EEZ around the Mariana Archipelago include the blue whale and the fin whale.

Sperm whales mature slowly and can live to be over 60 years of age. They are pelagic species that occur in deep water. They have been sighted annually in the Marianas, but in low numbers.

Endangered humpback whales that winter in the Mariana Archipelago are believed to be part of the Asian stock which migrates from the Bonin (Ogasawara Islands). Although these whales have been seen in the Mariana Archipelago the number of whales present is unknown. The population in the north Pacific basin is estimated to contain 6,000-8,000 individuals.

Sei whales are distributed worldwide but are found mainly in cold temperate to sub-polar latitudes. They are distributed far out to sea. Two sei whales were tagged in the vicinity of the Northern Mariana Islands.

Sperm whales are found in tropical to polar waters throughout the world and are among the most abundant large cetaceans in the region. Sightings of sperm whales were made during May-July in the 1980’s around Guam.

In recent years, strandings of dwarf and pygmy sperm whales were reported on Guam, indicating their presence in the Mariana Islands.

There have been no observations or reports of sperm, humpback, sei or blue whales interacting with Mariana Islands fisheries.

NMFS has not implemented federal observer requirements for the Guam and CNMI pelagic troll and handline fisheries, because the agency relies on the local government fishery monitoring programs to collect data from these fishing vessels, as it does in Hawaii. No interactions with protected species, including marine mammals have been reported in the Guam or CNMI pelagic troll and handline fishery. If requested by NMFS, observers must be carried on federally permitted vessels fishing with pelagic longline

gear, fishing for crustaceans, fishing for bottomfish in Guam with a vessel over 50 ft in length and all commercial bottomfish vessels in CNMI, and interactions must be reported in Federal logsheets. There are no observer requirements for precious coral fishing as a fishery has never existed in the Marianas.

Pursuant to Section 7 of the Endangered Species Act (ESA), NMFS has evaluated fishing activities (e.g. gears, methods and operations) of the Marianas bottomfish, crustacean, precious coral, coral reef and pelagic troll and handline fisheries for potential impacts on ESA listed species under the jurisdiction of NMFS. Table 11 provides a list of fisheries that may potentially occur within the Monuments of the under the proposed action and summarizes the most recent ESA Section 7 consultations and determinations for each fishery

Dugong

A single dugong (*Dugong dugong*) was observed in Cocos Lagoon, Guam in 1975 (Randall et al., 1975). Several sightings were reported in 1985 on the southeastern side of Guam (Eldredge, 2003). Since that time, however, no reports of dugongs have been made. No observations of dugongs have been reported for CNMI. There have been no reports of interactions between fishing vessels and dugongs.

Seabirds and Native Land Birds

Seabirds of the Mariana Archipelago are listed in Table 4.These birds have the potential to interact with fisheries in the area; however, there are no known interactions between seabirds and any of the Mariana Archipelago fisheries (WPRFMC, 2007).

Table 4. Seabirds of the Mariana Archipelago.

| Common name | Scientific name |
|---|---|
| Residents and Migrants | |
| Black noddy | *Anous minutus* |
| Brown noddy | *Anous stolidus* |
| Great frigatebird | *Fregata minor* |
| Lesser frigatebird | *Fregata ariel* |
| White tern | *Gygis alba* |
| White-tailed tropicbird | *Phaethon lepturus* |
| Red-tailed tropicbird | *Phaethon rubricauda* |
| Streaked shearwater | *Calonectris leucomelas* |
| Wedge-tailed shearwater | *Puffinus pacificus* |
| Sooty tern | *Onychoprion fuscatus* |
| Other terns | *Sterna* spp., *Chlidonias leucopterus* |
| Masked booby | *Sula dactylatra* |
| Brown booby | *Sula leucogaster* |
| Red-footed booby | *Sula sula* |
| Pacific Golden-plover | *Pluvialis fulva* |
| Black-bellied plover | *Pluvialis squatarola* |
| Kentish plover | *Charadrius alexandrines* |

| Common name | Scientific name |
|---|---|
| Lesser sandplover | *Charadrius mongolus* |
| Greater sandplover | *Charadrius leschenaultia* |
| Ruddy turnstone | *Arenaria interpres* |
| Sanderling | *Calidris alba* |
| Wandering tattler | *Heteroscelus incanus* |
| Bristle-thighed curlew | *Numenius tahitiensis* |
| Snipes | *Gallinago* spp. |
| Bar-tailed Godwit | *Limosa lapponica* |
| Whimbrel | *Numenius phaeopus* |
| Bristle-thighed curlew | *Numenius tahitiensis* |
| Sandpipers | *Tringa* spp., *Xenus* sp. |
| Tattlers | *Heterosceles* spp. |
| Stints and sandpipers | *Calidris spp.* |
| Ruff | *Philomachus pugnax* |
| Herring gull | *Larus argentatus* |
| Black-headed gull | *Larus ridibundus* |
| **Visitors** | |
| Leach's storm-petrel | *Oceanodroma leucorhoa* |
| Matsudaira's storm-petral | *Oceanodroma matsudairae* |
| Newell's shearwater (endangered) | *Puffinus auricularis newelli* |
| Short-tailed shearwater | *Puffinus tenuirostris* |
| Audubon's shearwater | *Puffinus iherminieri* |
| Christmas shearwater | *Puffinus nativitatis* |
| Townsend's shearwater | *Puffinus auricularis* |
| Source: Lepage 2012. | |

There have been no sightings of the endangered short-tailed albatross (*Phoebastria albatrus*) in CNMI although CNMI is within the range of the main breeding colony at Torishima Island, Japan (WPRFMC, 2007). According to a 2011 endangered species consultation on the Mariana longline fishery, the foraging range of the endangered Newell's shearwater, which is a rare visitor to the CNMI and has not been seen in Guam, is outside the area fished by the Mariana longline fishery. The endangered short-tailed albatross foraging area is generally north of 15$^{o}$N and the albatross was found to be outside of the range of longline fishing around the Mariana Islands (USFWS, 2011). It is, therefore, not expected to interact with non-commercial fishing in the Islands Unit.

In addition to seabirds, endangered Micronesian megapodes (*Megapodius laperouse*) remain in relatively large numbers on the smaller, mostly uninhabited northern islands of Anatahan, Sarigan, Guguan, Pagan, Maug, Alamagan, Asuncion, and possibly Agrihan. This flightless land bird would not be directly or indirectly affected by fishing in the waters offshore. Landing on the islands requires a permit from the CNMI government.

### 3.1.5 Essential Fish Habitat and Habitat Areas of Particular Concern

Essential fish habitat (EFH) and habitat areas of particular concern (HAPC) are designated in various portions of the Mariana Archipelago, including the Islands Unit.

EFH in the Islands Unit is listed in Table 13 in Section 5. Affected EFH in the Islands Unit includes: Bottomfish EFH including the water column and habitat down to 400 meters; Coral reef ecosystem EFH which includes the water column and benthic substrate to a depth of 100 meters; Crustaceans EFH which includes bottom habitat from the shoreline to a depth of 100 meters, and Pelagics EFH which includes the water column down to 1,000 meters. These EFH designations include EFH for all life stages. HAPC has been determined to be all coral reefs in the PRIA and the water column above seamounts and banks down to 1,000 meters. At present, no fishery under the Council's jurisdiction has been found to adversely affect the EFH or HAPC of any MUS (WPFMC, 2007).

## 3.2 Pacific Remote Islands Monument

### 3.2.1 Overview of the Pacific Remote Islands Monument

Established in January, 2009 by Presidential Proclamation, the Pacific Remote Islands Monument (PRI) consists of Baker, Howland, Jarvis, and Wake Islands, Palmyra and Johnston Atolls, and Kingman Reef and surrounding submerged lands and waters to the extent of the Monument; approximately 50nm from shore. Locations of the islands and atolls and the EEZ around them are shown in Figure 7. The Monument is cooperatively managed by the Secretary of Commerce (NOAA) the Secretary of the Interior (U.S. Fish and Wildlife Service), with the exception of Wake Atoll and Johnston Atoll which are currently managed by the Department of Defense. National Wildlife Refuges also exist at each of the islands within the Monument. These Refuges are closed to the public, except Palmyra Atoll which has a visitor program. Monument permits are required for activities in the marine areas. Activities in the Refuge areas include recreational sailing, scientific research, recreational and sustenance fishing (at Palmyra Atoll and Wake Island), and for special expeditions by groups such as ham radio operators when such activities do not pose a threat to wildlife.

There is currently a no-take marine preserve from 0-50 fm around Kingman Reef, and Howland, Baker and Jarvis Islands for coral reef ecosystem (CRE) management unit species (MUS). A low-take marine preserve from 0-50 fm around Palmyra Atoll, Johnston Atoll, and Wake Island for CRE MUS requires a permit to harvest CRE MUS.

The proposed action would establish a no-take zone in all PRI Monument Units from 0-12 nm, subject to authorization of fishing by the U.S. Fish and Wildlife Service in consultation with NMFS and the Council. Non-commercial fishing would only be permitted by NMFS in Monument waters beyond 12nm from shore. Non-commercial fishing for bottomfish, crustaceans, precious coral and coral reef MUS is not expected to occur within the PRI Monuments because the islands that comprise the PRI are surrounded by a narrow reef slope that drops steeply into deep pelagic ocean waters very close to shore. Therefore, benthic habitat features that may support these fisheries are not likely to occur beyond 12 nm, except at Kingman Reef where only limited habitat to support non-pelagic fishing may potentially exist beyond 12 nm. However, because Kingman Reef is over 900 miles from the nearest fishing port in Honolulu and presents such limited fishing potential, fishing for non-pelagic species does not occur there. Thus

the only fishing that could occur in the PRI would be trolling. Information for each area is provided as background for the Monument resources.

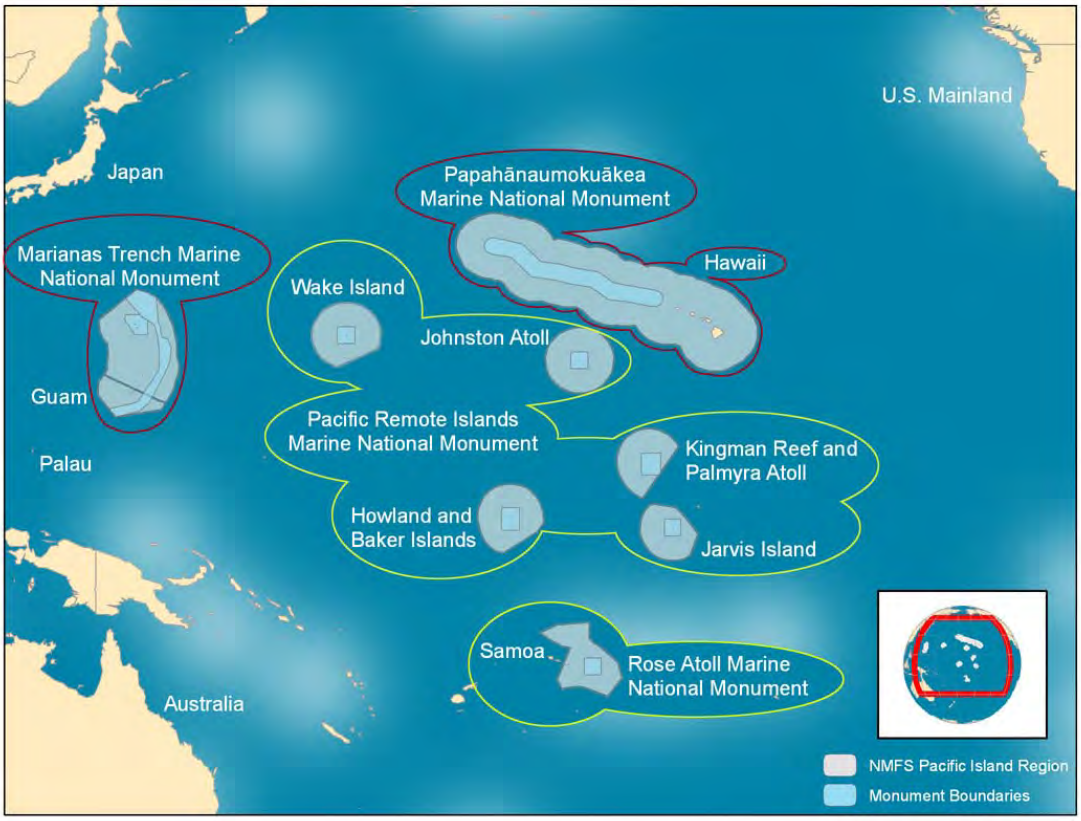



Figure 7. Marine National Monuments in the Pacific.

Table 5. List of birds reported from the Units of the Pacific Remote Islands Marine National Monument.

| Common name | Scientific Name | Johnston Atoll | Howland Island | Baker Island | Jarvis Island | Palmyra Atoll | Kingman Reef | Wake Island |
|---|---|---|---|---|---|---|---|---|
| Laysan Albatross | *Phoebastria immutabilis* | Rare | | | | | | X |
| Black-footed Albatross | *Phoebastria nigripes* | Rare | | | | | | X |
| Short-tailed Albatross | *Phoebastria albatrus* | | | | | | | Rare/Accid |
| Black Noddy | *Anous minutus* | X | | | | X | | X |
| Brown Noddy | *Anous stolidus* | X | X | X | X | X | | X |
| Blue Noddy | *Procelsterna cerulea* | | X | | X | | | X |
| Herald Petrel | *Pterodroma arminjoniana* | | | | | | | Rare/Accid |
| Bonin Islands Petrel | *Pterodroma hypoleuca* | | | | | | | X |
| Christmas Shearwater | *Puffinus nativitatis* | X | | | X | | | X |
| Audubon's Shearwater | *Puffinus iherminieri* | | | | X | X | | |
| Wedge-tailed Shearwater | *Puffinus pacificus* | X | X | | | | | X |
| Townsend's Shearwater | *Puffinus auricularis* | Rare | | | | | | |
| Buller's Sheartwter | *Puffinus bulleri* | | | | | | | X |
| Sooty Shearwater | *Puffinus griseus* | | | | | | | Rare/Accid |
| Flesh-footed Shearwater | *Puffinus carneipes* | | | | | | | X |
| Bulwer's Petrel | *Bulweria bulweri* | X | | | | | | X |
| Leach's Storm Petrel | *Oceanodrama leucorhoa* | | | | | | | X |
| Great Frigatebird | *Fregata minor* | X | X | X | X | X | | X |
| Lesser Frigatebird | *Frigata ariel* | | X | X | X | X | | X |
| White Tern | *Gygis alba* | X | X | X | X | X | | X |
| Red-tailed Tropicbird | *Phaethon rubricauda* | X | X | X | X | X | | X |
| White-tailed Tropicbird | *Phaethon lepturus* | X | X | | | X | | X |
| Red-billed Tropicbird | *Phaethon aethereus* | Rare | | | | | | |
| Blue-gray Noddy | *Procelsterna cerulea* | Rare | | X | | | | |
| Gray-backed Tern | *Onychoprion lunatus* | X | X | X | X | | | |
| Sooty Tern | *Onychoprion fuscatus* | X | X | X | X | X | | X |
| Masked Booby | *Sula dactylatra* | X | X | X | X | X | | X |
| Red-footed Booby | *Sula sula* | X | X | X | X | X | | X |
| Brown Booby | *Sula leucogaster* | X | X | X | X | X | X | X |

| Common name | Scientific Name | Johnston Atoll | Howland Island | Baker Island | Jarvis Island | Palmyra Atoll | Kingman Reef | Wake Island |
|---|---|---|---|---|---|---|---|---|
| Pacific golden-plover | *Pluvialis fulva* | X | X | X | X | X | | X |
| Common Snipe | *Gallinago gallinago* | | | | | | | X |
| Bristle-thighed curlew | *Numenius tahitiensis* | X | X | X | X | X | | X |
| Greater Yellowlegs | *Tringa melanoleuca* | | | | | | | X |
| Wandering tattler | *Tringa incana* | X | X | X | | X | | X |
| Ruddy turnstone | *Arenaria interpres* | X | X | X | X | X | | X |
| Sanderling | *Calidris alba* | X | X | X | X | X | | X |
| Bar-tailed godwit | *Limosa lapponica* | | X | X | | | | |
| Sharp-tailed sandpiper | *Calidris acuminata* | | X | X | | X | | X |
| Pectoral sandpiper | *Calidris melanotos* | | X | X | | | | |
| Dunlin | *Calidris alpina* | | | | | | | X |
| Semipalmated plover | *Charadrius semiplamatus* | | X | X | | | | |
| Laughing gull | *Larus atricilla* | | | X | | | | |
| Polynesian storm-petrel | *Nesofregetta fuliginosa* | | | | X | | | |
| Other birds | | | | | | | | |
| Northern shoveler | *Anas clypeata* | | | | | | | X |
| Northern pintail | *Anas acuta* | | | | X | | | X |
| Garganey | *Anas querquedula* | | | | | | | X |
| | | | | | | | | |

Sources: USFWS,1995; 2008a,b,c; 2012; Birds of Johnston Island, Birds of Palmyra Atoll, Birds of Wake Island online.

### *3.2.1.1 Baker Island*

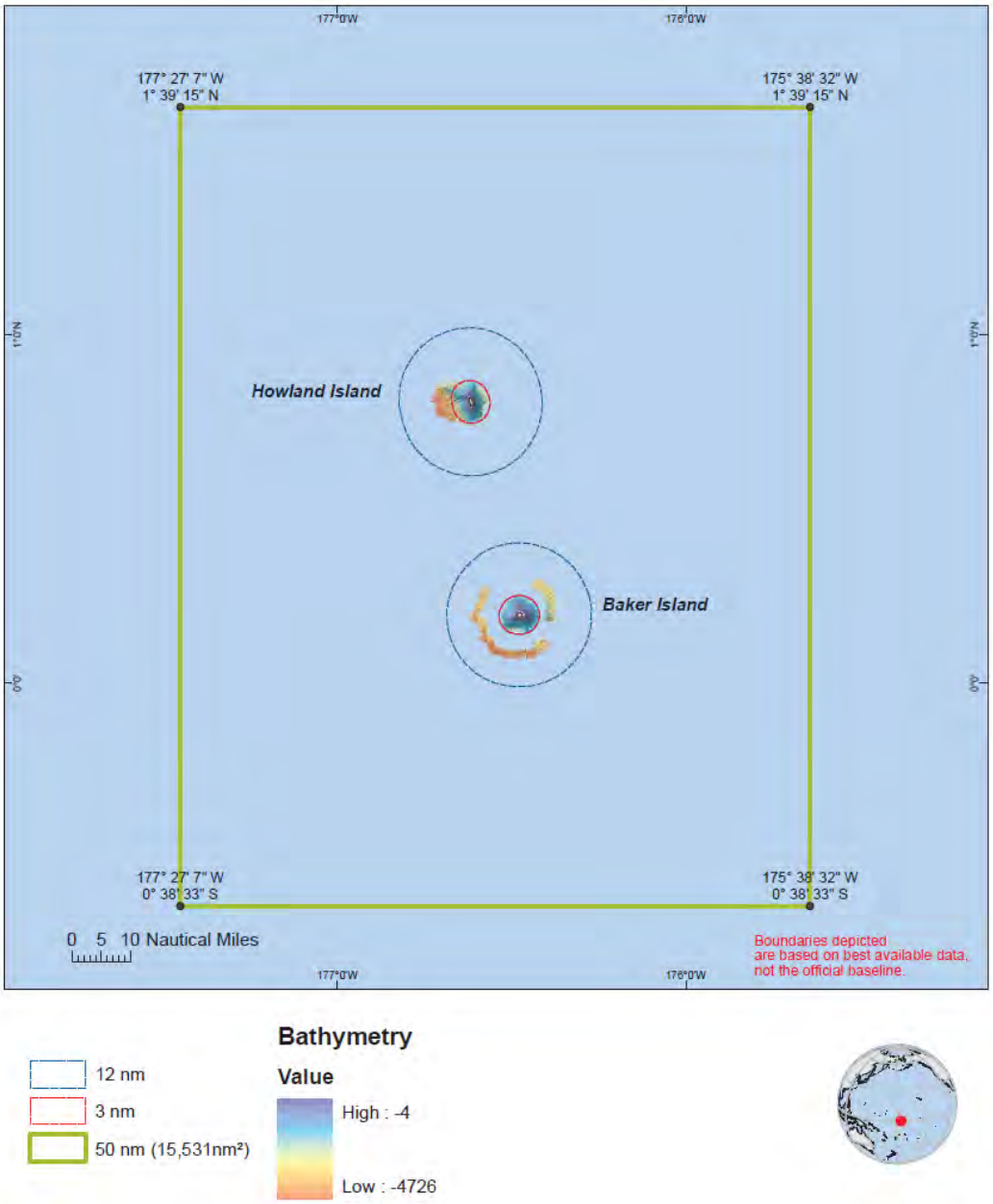



Figure 8. Baker and Howland Islands Units of the PRI Monument
Source: USFWS
http://www.fws.gov/pacificremoteislandsmarinemonument/PRIMNM%20maps.pdf

Baker Island, which is part of the Phoenix Islands archipelago, is located 13 miles north of the equator at 0° 13' N and 176° 38' W and approximately 1,600 nm to the southwest of Honolulu (Figure 8). It is a coral-topped seamount surrounded by a narrow-fringing reef that drops steeply very close to the shore (Figure 9). The total amount of emergent land area of Baker Island is 1.4 square kilometers (CIA World Fact Book, 2005).

Figure 9. Photo of Baker Island
Source: NOAA http://www.ngdc.noaa.gov/dmsp/coral/images/baker/03DEC09215855-M2AS-005648690020_01_P001-BROWSE.JPG

Coral Reefs

Within the 10-fathom curve, the potential coral reef area of Baker Island is estimated at 5.2 $km^2$ (Rohmann et al., 2005). Surveys have found 82 species of stony corals, 13 genera of algae, and 247 species coral reef fishes at Baker Island (Brainard et al., 2005; USFWS, 2008a). Although stressors such as climate change and coral bleaching, diseases, tropical storms, and marine debris remain, the coral reef ecosystem around Baker Island is healthy and productive (Brainard et al., 2005). Reef fish populations are reported as being healthy and diverse (USFWS, 2008a).

Deep Reef Slope and other Pelagic Habitat

Most of the submerged habitat is deep and relatively unexplored.

Because of its position near the equator, Baker Island lies within the westward flowing South Equatorial Current. Baker Island also experiences an eastward flowing Equatorial Undercurrent that causes upwelling of nutrient and plankton rich waters on the west side of the island (Brainard et al., 2005; USFWS, 2008a).

Pelagic Fishes

Oceanic pelagic fish that are likely to be affected by troll and handline fishing in the PRI include skipjack, yellowfin tuna, bigeye tuna and blue marlin. There has been no commercial fishing in the Baker Unit since the Monument was established.

Sea Turtles

Threatened green and endangered hawksbill sea turtles have been observed foraging in the nearshore areas around Baker Island (USFWS, 2008a). However, they have not been observed nesting on the island (Beth Flint, USFWS personal communication).Other species of sea turtle may occur in the EEZ around Baker Island, but to date, information on species abundance are not available.

Marine Mammals

Cetaceans listed as endangered under the ESA and that have been observed in the Western Pacific Region include the humpback whale (*Megaptera novaeangliae*), sperm whale (*Physeter macrocephalus*), blue whale (*Balaenoptera musculus*), fin whale (*B. physalus*), and sei whale (*B. borealis*). A resident population of bottlenose dolphins (*Tursiops truncatus*)is reported to occur near Howland and Baker Islands (Brainard et al., 2005, USFWS, 2008a). In addition, other cetaceans such as sperm whales are believed to occur around Baker Island.

Seabirds

Baker Island provides habitat for a wide variety of seabirds and migratory shorebirds. The three most numerous breeding species are the lesser frigatebird, brown noddy and sooty tern. Seabirds forage in marine waters and are often associated with schools of fish. A list of seabirds from Baker Atoll is provided in Table 5 above.

Social Environment

In 1924, Bishop Museum archaeologist Kenneth Emory discovered several Polynesian structures as well as stone paths and pits, and concluded that Baker Island was known to early Polynesians.[15] In the early nineteenth century, several whaling ships landed on the island, including the *Gideon Howard* for whose captain, Michael Baker, the island is named. Captain Baker later sold his rights to the island to the American Guano Company, which extensively mined the island's phosphate deposits from 1859 to 1878. In 1935, American colonists attempted to settle the island and built dwellings, a lighthouse, and planted trees and shrubs.[16] The settlement was abandoned due to World War II. Baker Island was designated a National Wildlife Refuge in 1974 and is administered by the USFWS. The island is uninhabited, and entry is by permit only. USFWS personnel visit Baker about every 2 years, though occasionally scientists and researchers team up to share transportation costs to the island more frequently. From Honolulu, it is only accessible by an 8-day ship voyage.

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[15] Source: Bishop Museum, Honolulu, Hawaii, past exhibits (1995) and at ; http://www.bishopmuseum.org/exhibits/pastExhibits/1995/hawaiilo/hawbaker.html

[16] http://www.janeresture.com/baker/

The Council's Coral Reef Ecosystems FMP (69 FR 8336) established a no-fishing zone for coral reef ecosystem species from 0 to 50 fm around Baker Island which was carried forward into the PRIA FEP (WPFMC, 2009c).

#### *3.2.1.2 Howland Island*

Howland Island, which is also part of Phoenix Islands archipelago, is located 48 miles north of the equator at 0° 48' N and 176° 38' W, and 36 nm north of Baker Island. The island, which is the emergent top of a seamount, is fringed by a relatively flat coral reef that drops off sharply (Figure 10).

Figure 10. Photo of Howland Island.
Source: NOAA

Howland Island is approximately 1.5 miles long and 0.5 miles wide. The island is flat and supports some grasses and small shrubs. The total land area is 1.6 square kilometers (CIA World Fact Book).

<u>Coral Reefs</u>
The potential coral reef area with the 10-fathom curve of Howland is estimated to be 3.0 square kilometers (Rohmann et al., 2005). At Howland Island, surveys found 91 species of corals, nine genera of algae, and 302 species coral reef fishes (Brainard et al., 2005). Although stressors such as climate change, coral bleaching, diseases, tropical storms, and marine debris remain, the coral reef ecosystem around Howland Island appears healthy and productive (Brainard et al., 2005).

Deep Reef Slope and other Pelagic Habitat

Howland Island is a seamount surrounded by a narrow-fringing reef that drops steeply very close to the shore. To date, information about the habitat of Howland Island's deep reef slope and the marine life it supports are unavailable.

Because of its position slightly north of the equator, Howland Island lies within the margins of the eastward flowing North Equatorial Counter Current and the margins of the westward flowing South Equatorial Current. Sea–surface temperatures of the EEZ around Howland Island are often near 30° C.[17]

Pelagic Fishes

Pelagic fish that are likely to be affected by troll and handline fishing in the PRI include skipjack, yellowfin tuna, bigeye tuna and blue marlin. There been no known commercial fishing in the Howland Island Unit since the Monument was established.

Sea Turtles

Threatened green and endangered hawksbill sea turtles are reported to occur in the nearshore reef areas of Howland Island (USFWS, 2008b). However, the abundance and occurrence of other sea turtles around Howland Island are currently unknown.

Marine Mammals

A resident population of bottlenose dolphins is reported to occur near Howland and Baker Islands (Brainard et al., 2005). In addition, other cetaceans such as sperm whales are believed to occur around Howland Island.

Seabirds

Howland Island provides roosting and nesting habitat for a wide variety of seabirds and migratory shorebirds. The three most numerous breeding species are the lesser frigatebird, brown noddy and sooty tern. Seabirds forage in marine waters and are often associated with schools of fish. A list of seabirds from Howland Island is provided in Table 5 above.

Social Environment

Throughout the whaling era of the early nineteenth century, several ships are believed to have landed at Howland Island. In 1857, Howland Island was claimed by the American Guano Company, which mined several hundred thousand tons of guano between 1857 and 1878. American colonists landed on the island in 1935 and later built a runway that was going to be used by Amelia Earhart on her circumnavigation flight in 1937. Earhart was supposed to land on Howland on July 2, 1937, as a stopover during her flight from Lau, New Guinea to Oahu, Hawaii. However, Earhart never arrived nor was she heard from again. The lighthouse at Howland Island is called Amelia Earhart light.[18] In 1942, following attacks on the island by Japanese forces, the American colonists were removed.

[17] http://oceanwatch.pifsc.noaa.gov/
[18] http://www.janeresture.com/howland/

Since that time, the island has remained uninhabited. In 1974, management authority of the refuge was transferred to the USFWS.

The Council's Coral Reef Ecosystems FMP (69 FR 8336) established a no-take zone from 0 to 50 fm around Howland Island which was incorporated into the PRI FEP (WPFMC, 2009c).

#### *3.2.1.3 Jarvis Island*

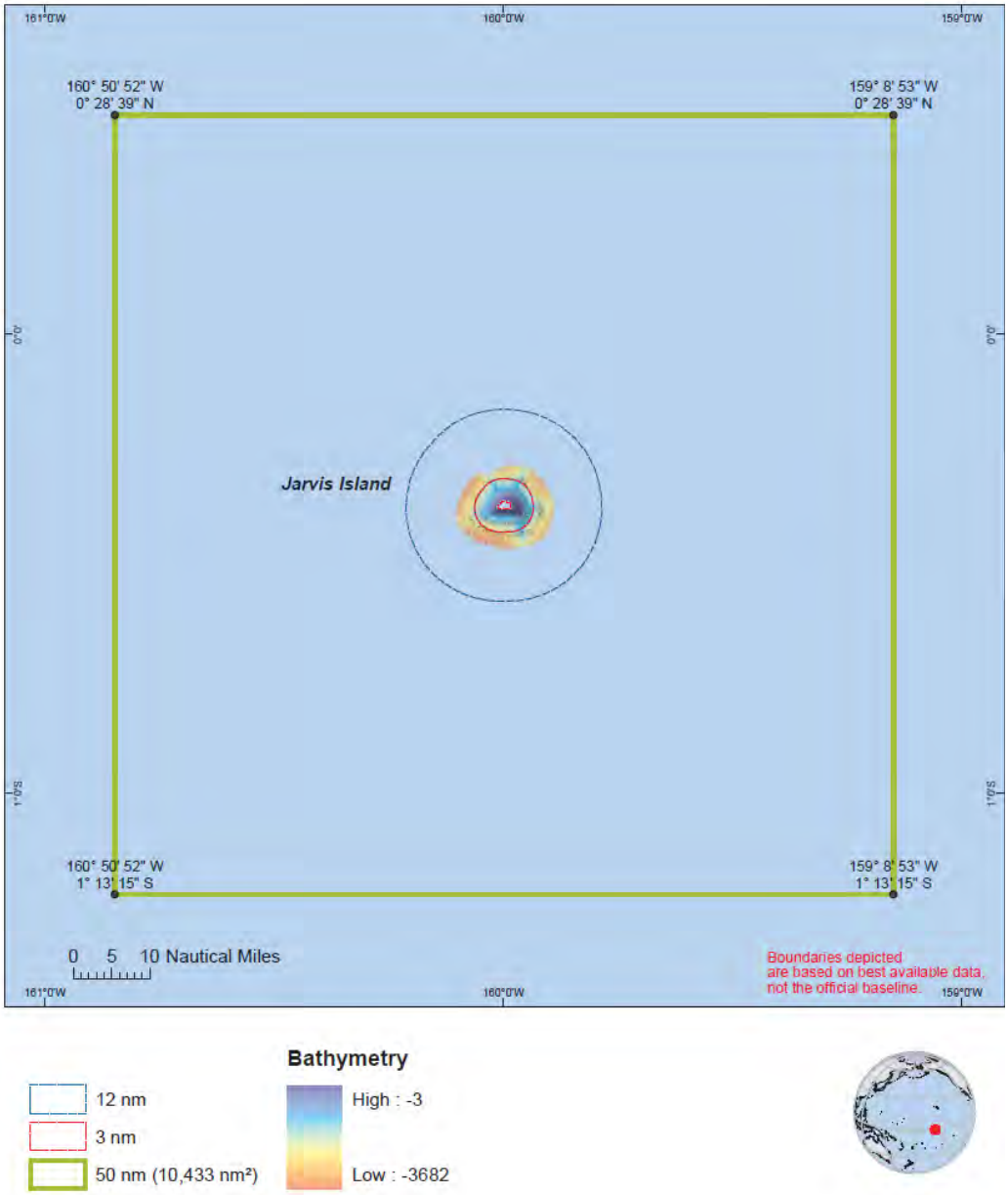



Figure 11. Jarvis Island Unit of the Pacific Remote Islands Marine National Monument. Source: USFWS http://www.fws.gov/pacificremoteislandsmarinemonument/PRIMNM%20maps.pdf

Jarvis Island, which is part of the Line Islands Archipelago, is located at 0° 23' S, 160° 01' W and approximately 1,300 miles south of Honolulu and 1,000 miles east of Baker Island (Figure 11). Jarvis Island is a relatively flat and low (15–20-ft beach rise) sandy coral island with a total land area of 4.5 square kilometers (Figure 12). It experiences a very dry climate (CIA World Fact Book, 2005).

Figure 12. Photo of Jarvis Island,
Source: NASA-Johnson Space Center

Coral Reefs

Jarvis Island is surrounded by a narrow-fringing reef, but a broad submerged reef terrace extends off the eastern shoreline, dominated by moosehorn and rose corals. Live corals cover about 50 percent of the reef terrace (USFWS fws.gov/Jarvis). The potential coral reef area with the 10-fathom curve is estimated at 3.0 square kilometers (Rohmann et al., 2005). At Jarvis Island, surveys reported 59 species of stony corals, 10 genera of algae, and 252 species of coral reef fishes (Brainard et al., 2005). Despite stressors such as climate change, coral bleaching, diseases, tropical storms, and marine debris remain, the coral reef ecosystem around Jarvis Island appears healthy and productive (Brainard et al. 2005).

Deep Reef Slope and Pelagic Habitat

Jarvis Island is surrounded by a narrow-fringing reef that drops steeply very close to the shore. To date, detailed information about the habitat of Jarvis Island's deep reef slope and the marine life it supports are unavailable.

Due to its position below the equator, Jarvis Island lies within the South Equatorial Current, which runs in a westerly direction. Sea surface temperatures of the EEZ around Jarvis Island are often 28°– 30° C.[19] Although the depth of the mixed layer in the pelagic waters around Jarvis Island is seasonally variable, average mixed layer depth is around 80 meters (R. Moffitt, PIFSC, personal communication, 2011).

Pelagic Fishes

Pelagic fish that are likely to be affected by troll and handline fishing in the PRI include skipjack, yellowfin tuna, bigeye tuna and blue marlin. There been no commercial fishing in the Jarvis Island Unit since the Monument was established.

Sea Turtles

Threatened green and endangered hawksbill sea turtles are reported to occur in the nearshore reef areas of Jarvis Island (USFWS, 2008c). Their abundance as well as the occurrence of other sea turtles around Jarvis Island is currently unknown.

Marine Mammals

A resident population of bottlenose dolphins is reported to occur near Jarvis Island (Brainard et al., 2005). In addition, other central Pacific cetaceans such as sperm whales are believed to occur around Jarvis Island.

Seabirds

Jarvis Island provides nesting and roosting habitat for a wide variety of seabirds and migratory shorebirds, including nearly three million pairs of nesting sooty terns (USFWS, 2007c). These seabirds forage in marine waters and are often associated with schools of fish. A list of seabirds at Jarvis Island is found in Table 5 above.

Social Environment

Between 1859 and 1878, Jarvis Island was extensively mined for its rich guano deposits by the American Guano Company. In 1889, Great Britain annexed the island and leased it to a British mining company, which did not extract large amounts of guano. In 1935, American colonists reclaimed Jarvis as an American possession and built a group of buildings that they named Millerstown. Jarvis was abandoned by the colonists due to attacks from Japanese forces during World War II, and since 1974 it has been a National Wildlife Refuge administered by the USFWS.

The Council's Coral Reef Ecosystems FMP (69 FR 8336) established a no-take zone from 0 to 50 fm around Jarvis Island which was incorporated into the PRIA FEP (WPFMC, 2009c).

[19] http://oceanwatch.pifsc.noaa.gov/

### *3.2.1.4 Palmyra Atoll*

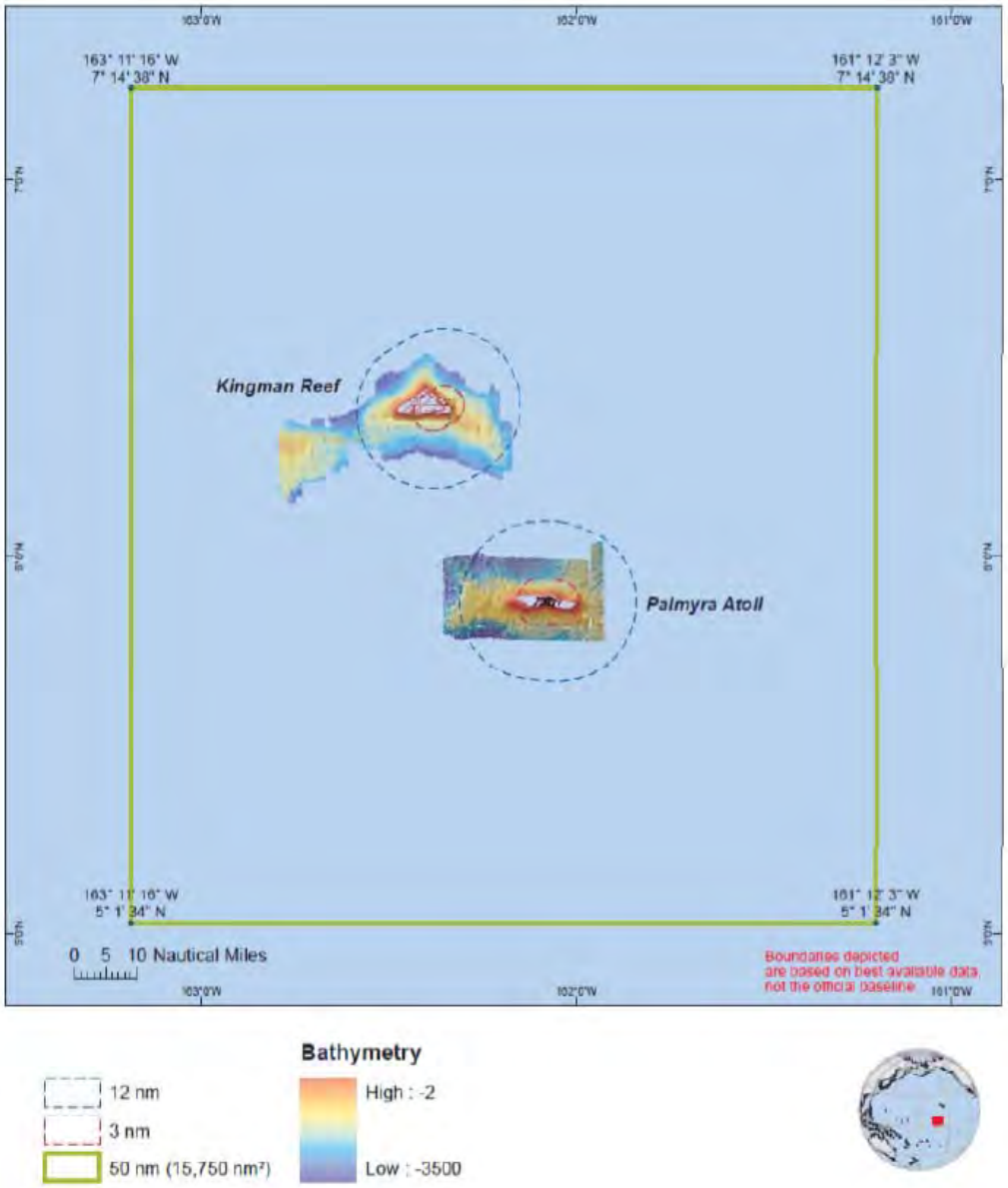



Figure 13. Palmyra Atoll and Kingman Reef Units of the Pacific Remote Islands Monument.
Source: USFWS
http://www.fws.gov/pacificremoteislandsmarinemonument/PRIMNM%20maps.pdf

Palmyra Atoll is made up of approximately 26 islets surrounding three central lagoons (Figure 14). This low-lying coral atoll system is approximately 1,056 nm south of Honolulu and is located at 5° 53' N latitude and 162° 05' W longitude (Figure 13). Palmyra Atoll and Kingman Reef occur at the northern end of the Line Island

archipelago, situated halfway between Hawaii and American Samoa. Palmyra Atoll is located in the Inter-tropical Convergence Zone (ITCZ), an area of high rainfall.

Figure 14. Photo of Palmyra Atoll.
Source: NOAA PIFSC

Coral Reefs

Palmyra Atoll is surrounded by extensive reef flats on all sides. The potential coral reef area within the 10-fathom curve around Palmyra Atoll is estimated at 47.2 square kilometers (Rohmann et al., 2005). At Palmyra Atoll, the following numbers of coral reef associated organisms are reported to occur: 170 species of corals, 13 genera of algae, and 343 species of coral reef fishes (Brainard et al., 2005). Palmyra Atoll is observed to have a higher diversity of corals, anemones, and fishes than other Pacific Remote Islands because it is located within the eastward flowing Equatorial Counter Current which flows from areas in the western Pacific with high levels of biodiversity (Brainard et al., 2005).

Deep Reef Slope and Pelagic Habitat

Information about the deep reef slope around Palmyra Atoll and the marine life it supports are unavailable. However, the area of deep reef slope is not believed to be extensive.

Because of its relative proximity to the equator, Palmyra Atoll lies in the North Equatorial Counter Current, which flows in eastward direction. Sea–surface temperatures of the EEZ around Palmyra Atoll are often 27°–30° C.[20] Although the depth of the mixed layer in the pelagic waters around Palmyra Atoll is seasonally variable, the average mixed layer depth is around 90 meters (R. Moffitt, PIFSC, to E. Kingma (Council staff), pers. comm., 2010).

[20] http://oceanwatch.pifsc.noaa.gov/

Pelagic Fishes

Pelagic fish that are likely to be affected by troll and handline fishing in the PRI include skipjack, yellowfin tuna, bigeye tuna and blue marlin. There been no known commercial fishing in the Palmyra Unit since the Monument was established.

Sea Turtles

Both threatened green sea turtles and endangered hawksbill sea turtles have been observed at Palmyra Atoll. Green turtles are known to nest on Cooper's Island, which is the largest island of the atoll (USFWS, 1998).

Marine Mammals

Pilot whales and bottlenose dolphins have been observed in waters of Palmyra Atoll (Fefer, 1987), and a Hawaiian monk seal was sighted in 1990 (Redmond, 1990). Melon headed whales, which primarily feed on squid, have been observed around the outer edges of the atoll. Palmyra's southwestern side is likely an area of higher productivity than other areas because the main channel into the lagoon is located there and is believed to be the major output source of nutrient-rich lagoon waters (Brainard et al., 2005). Killer whales, false killer whales, and humpback whales have also been observed in the EEZ around Palmyra (USFWS communication, 2012).

Seabirds

Palmyra Atoll supports 29 species migratory seabirds and shorebirds and has the largest nesting colonies of red-footed boobies and black noddies in the central Pacific (USFWS, 1998). The islets of the atoll are important habitat for the bristle-thighed curlew (*Numenius tahitiensis*), a shorebird that is considered vulnerable due to declining numbers. These seabirds forage in marine waters. A list of birds found at Palmyra Atoll is provided in Table 5, above.

Social Environment

Palmyra first became an American possession when it was claimed by the American Guano Company in 1859. In 1862, King Kamehameha IV claimed Palmyra for the Kingdom of Hawaii. In 1898, when the U.S. annexed Hawaii, President McKinley also included Palmyra Atoll. In 1912, a judge from Honolulu bought all of Palmyra Atoll, which he later sold to the Fullard-Leo family. From 1940–1946, the U.S. Navy took control of Palmyra and used it as a naval aviation facility. In 1947, the U.S. Supreme Court returned ownership of Palmyra to the Fullard-Leo family from the U.S. Navy. In 1961, President Kennedy assigned the U.S. Department of the Interior to have civil administration over Palmyra. In 2000, the Nature Conservancy bought most of Palmyra Atoll from the Fullard-Leo family and in July 2004 established the Palmyra Atoll Research Consortium (PARC). One of the islets is in private ownership. In, 2003, the Nature Conservancy sold much of the emergent land to the USFWS. The Nature Conservancy owns a portion of Cooper Island that it manages as a nature preserve. Public access requires a Special Use Permit from the USFWS. A small number of employees of the USFWS and TNC work on Palmyra Atoll. The Refuge and TNC areas are open to the public with a permit. Visitors arrive by air or by sea.

The Council's Coral Reef Ecosystems FMP (69 FR 8336) established a low-use zone from 0 to 50 fm around Palmyra Atoll. This requirement was incorporated into the PRIA FEP (WPFMC 2009c).

A low level of sustenance fishing (primarily for tuna, mahimahi, and wahoo) occurs by researchers, visitors, and employees, and catch records are maintained by the USFWS.

#### *3.2.1.5 Kingman Reef*

Kingman Reef, is located 33 nm northwest of Palmyra Atoll at 6° 23' N and 162° 24' W (Figure 13). It is comprised of a fringing reef opening onto a lagoon (Figure 15). Kingman Reef does not have any permanent emergent islets that support vegetation. The USFWS administers the reef area as an uninhabited National Wildlife Refuge.

Figure 15. Photo of Kingman Reef.
Source: USFWS

Coral Reefs

The potential coral reef area within the 10 fm curved Kingman Reef is estimated at 20.9 km² (Rohmann et al., 2005). At Kingman Reef, 181 species of hard corals, 15 genera of algae, and 225 species of reef fishes are reported to occur (Brainard et al., 2005; USFWS, 2012). These reefs support spectacular coral diversity an abundance of mushroom corals and anemones on lagoon reefs, and many varieties of table and staghorn corals flourishing on ocean-facing reefs. Kingman Reef also supports among the highest density of giant clams in the Pacific, including the northern range extension of one particularly rare species *Tridacna squamosa*. Giant clams continue to decline throughout their entire range due to overharvesting and several species are listed by IUCN as depleted or endangered; Kingman Reef serves as a critically important refuge for the continued existence of these clams (USFWS, 2012). More than 225 fish species have been recorded, including sharks, rays, eels, groupers, jacks, goatfishes, butterflyfishes, damselfishes, mullets, wrasses, parrotfishes, surgeonfishes, and tuna.

Deep Reef Slope and Pelagic Habitat

Information about the deep reef slope around Kingman Reef and the marine life it supports are unavailable. However, the area of deep reef slope is not believed to be extensive.

Because of its relative proximity to the equator, Kingman Reef lies in the North Equatorial Countercurrent, which flows in a west to east direction. Sea–surface temperatures of the EEZ around Palmyra Atoll and Kingman Reef are often 27°–30° C.[21] Although the depth of the mixed layer in the pelagic waters around Kingman Reef is seasonally variable, average mixed layer depth is around 80 meters (R. Moffitt, PIFSC, personal communication 2010).

Pelagic Fishes

Pelagic fishes that are likely to be affected by troll and handline fishing in the PRI include skipjack, yellowfin tuna, bigeye tuna and blue marlin. There been no known commercial fishing in the Kingman Reef Unit since the Monument was established.

Sea Turtles

Threatened green turtles and endangered hawksbill turtles are likely found at Kingman Reef, as both species are found at nearby Palmyra Atoll. Two small emergent coral rubble ridges support basking by threatened green turtles (USFWS, 2012).

Marine Mammals

The USFWS reports a sizable population of bottlenosed dolphins, and melon- headed whales occur around Kingman Reef (USFWS, 2012).

Seabirds

Seabirds which nest at Palmyra are likely to visit areas near Kingman Reef and forage in the waters around Kingman Reef. Brown boobies and migratory shorebirds roost on the coral rubble ridges at Kingman Reef (USFWS, 2012). A list of seabirds reported from Kingman reef is provided in Table 5 above.

Social Environment

In 2001, management authority of Kingman Reef was transferred from the Navy to the U.S. Fish and Wildlife Service. The USFWS administers the island as a National Wildlife Refuge and asserts a 12-nautical mile boundary around the atoll.

The Council's Coral Reef Ecosystems FMP (69 FR 8336) established a no-take zone for coral reef MUS from 0 to 50 fm around Kingman Reef which was incorporated in the PRI FEP (WPFMC, 2009c).

[21] http://oceanwatch.pifsc.noaa.gov/

### *3.2.1.6 Wake Island*

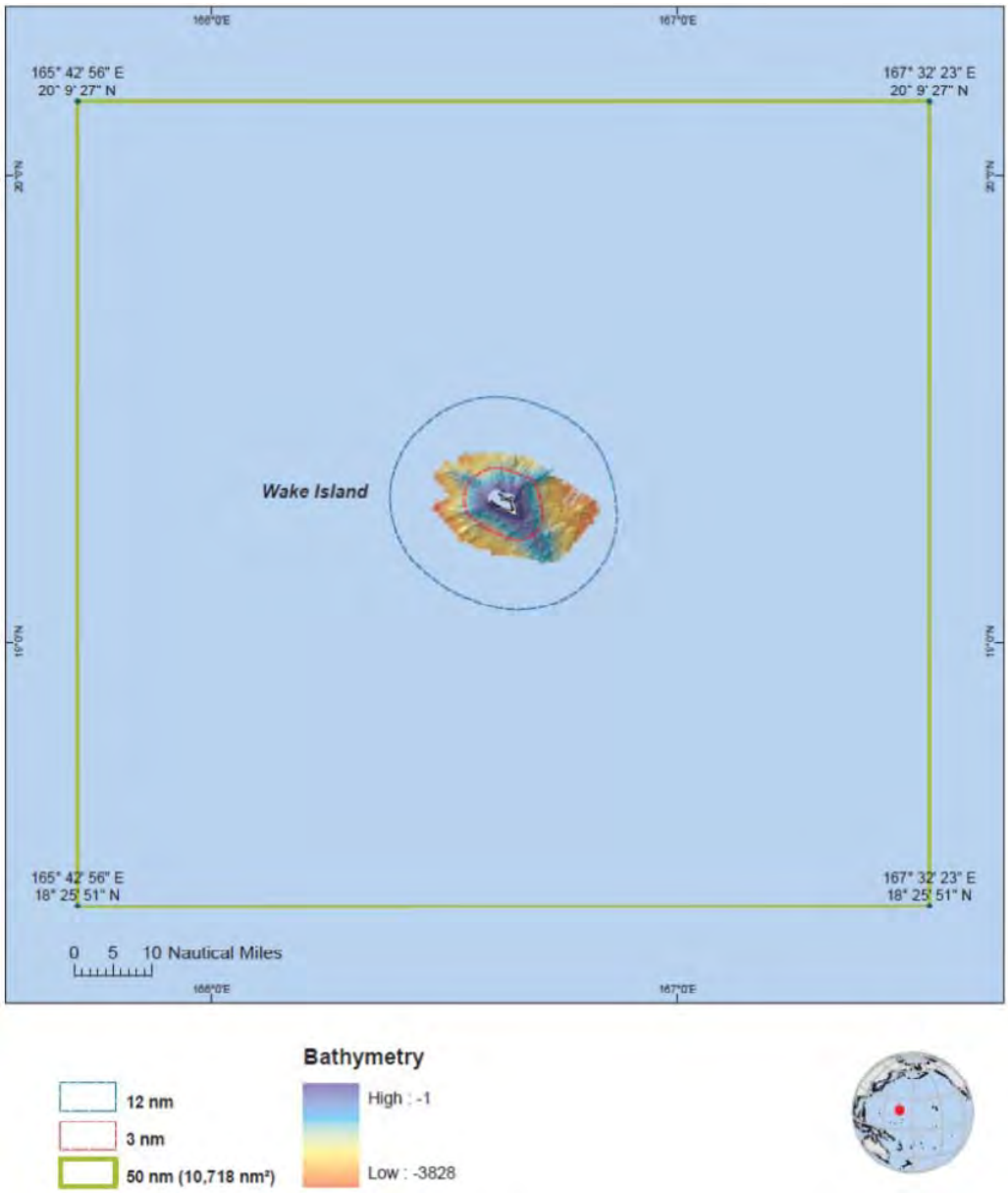



Figure 16. Wake Island Unit of the Pacific Remote Islands Marine National Monument. Source: USFWS

Wake Island is an atoll located at 19° 18' N latitude and 166° 35' E longitude, and is the northernmost atoll of the Marshall Islands archipelago, located approximately 2,100 miles west of Hawaii. Boundaries of the Monument are shown in Figure 16. The atoll has a total land area of 6.5 square kilometers and is made up of three islets: Wake, Peale, and Wilkes (Figure 17).

The islets support a rare grass species, *Lepturus gasparricensis*, in addition to widespread Pacific insular plants, and were home to the endemic Wake rail until it went extinct during World War II.

Figure 17. Photo of Wake Island.
Source: http://earthobservatory.nasa.gov/IOTD/view.php?id=79392

Coral Reefs

The coral reef area within the 10-fathom depth around Wake is estimated to cover 22.9 square kilometers (Rohmann et al., 2005). Sharks, particularly the gray reef, are reportedly abundant. The giant clam (*T. maxima*) is reported to be abundant in the lagoon. According to the USFWS (2010), approximately 100 species of corals have been reported at Wake Island, a number somewhat lower than found at larger and less isolated neighboring atolls to the south. Fish populations are abundant with at least 323 species recorded, including large populations of the Napoleon wrasse, sharks of several species, and large schools of the bumphead parrotfish, all of which are globally depleted.

Deep Reef Slope and Pelagic Habitats

Information about the deep reef slope around Wake Island and the marine life it supports are unavailable. However, the area of deep reef slope is not believed to be extensive because the outer reef slope descends sharply to great depth.

Sea–surface temperatures of the EEZ around Wake Island are often between 27°–30° C.[22] The depth of the mixed layer in the pelagic waters around Wake Island is seasonally variable, with the average mixed layer depth at around 80 meters (R. Moffitt, PIFSC, personal communication 2010).

[22] http://oceanwatch.pifsc.noaa.gov/

Pelagic Fishes
Oceanic pelagic fish that are likely to be affected by troll and handline fishing in the PRI include skipjack, yellowfin tuna, bigeye tuna and blue marlin. There has been no commercial fishing in the Wake Island Unit since the Monument was established.

Sea Turtles
Threatened green sea turtles are forage in the waters around Wake Atoll (USFWS, 2010). However, their abundance is unknown.

Marine Mammals
Spinner dolphins, Pacific bottlenose dolphins (*Tursiops truncatus*) and Cuvier's beaked whales are reported to occur at Wake Island.

Seabirds
Wake Atoll supports nesting and foraging for a wide variety of both resident and migratory seabirds. USFWS reports that Wake supports 12 species of resident nesting seabirds and six species of migratory shorebirds; all of which are populations of regional significance. Black-footed albatrosses and Laysan albatrosses recently re-colonized Wake; one of few northern albatross colonies outside the Hawaiian archipelago. A list of birds reported from Wake Island is provided in Table 5, above.

Social Environment
The written historical record provides no evidence of permanent prehistoric populations on Wake Atoll. However, for 2,000 years Marshall Islanders occasionally visited Wake, giving it the name *Eneen-kio*. The island was annexed by the U.S. in 1899. Before the 1930s, the only visitors were scientists and survivors of shipwrecks. The U.S. Navy received administrative control of Wake in 1934, and established an air base on the atoll in January 1941.Wake Atoll figured prominently in World War II, and the Japanese overtook U.S. forces on Wake in 1941. The U.S. reoccupied the atoll after the war, and administrative authority was held by the Federal Aviation Administration until 1962, when it was transferred to the Department of the Interior, which in turn assigned authority to the U.S. Air Force. Since 1994, the Department of the Army has maintained administrative use of Wake Island. Wake Atoll is closed to the public and permission from the U.S. Air Force is needed to enter the area. A small population of military members and support personnel live at Wake Island.

The Secretary of Defense continues to manage the emergent lands of Wake Atoll under an existing agreement between the Secretary of the Interior and the Secretary of the Air Force. Should that agreement be terminated, the lands would become part of the National Wildlife Refuge System. On January 16, 2009, the Secretary of the Interior delegated his management responsibilities for the monument to the U.S. Fish and Wildlife Service through Secretarial Order 3284.The Coral Reef Ecosystems FMP (69 FR 8336) established a low-use zone from 0 to 50 fm around Wake Atoll that was incorporated into the PRI FEP (WPFMC, 2009c).

### *3.2.1.7 Johnston Atoll*

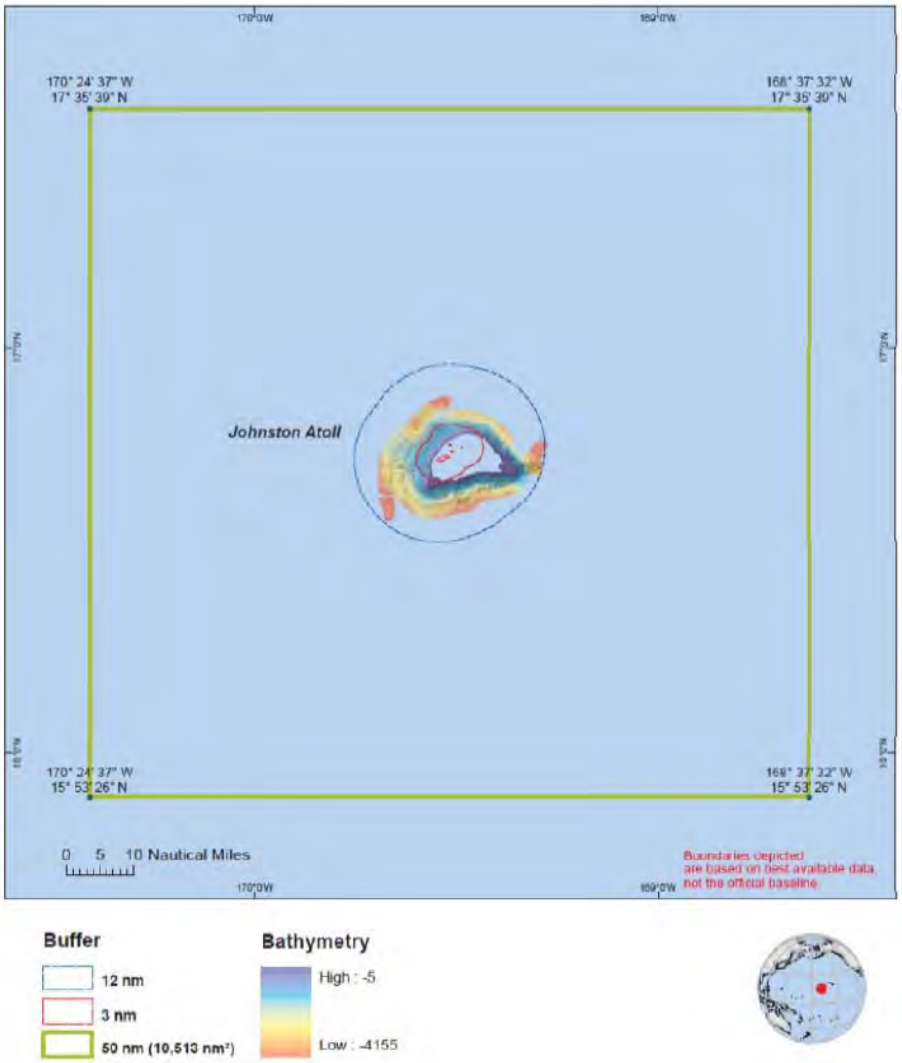



Figure 18. Johnston Atoll Unit of the Pacific Remote Islands Marine National Monument. Source: USFWS

Johnston Island is located at 16° 44' N latitude and 169°31' W longitude and is approximately 720 nm southwest of Honolulu. French Frigate Shoals in the NWHI is the nearest land mass (~ 450 nm to the northwest). Boundaries of the Monument are shown in Figure 18. Due to its proximity to the Hawaiian Islands, there is believed to be genetic and larval connectivity between the marine flora and fauna of Johnston Atoll and the Hawaiian Islands. Johnston Atoll is an egg-shaped coral reef and lagoon complex situated on a relatively flat, shallow platform approximately 21 miles in circumference (205 square kilometers).

Figure 19. Photo of a portion of Johnson Island.
Source: http://www.ww2aircraft.net/forum/technical/pacific-airfields-3451.html

The atoll includes four small emergent islands totaling 2.8 square kilometers. Johnston Atoll, the largest and main island, is natural in origin, but has been enlarged by dredge and fill operations. Sand Island is a naturally formed island (eastern portion) connected by a narrow, man-made causeway to a dredged coral island on its western portion. The remaining two islands, North Island and East Island, are completely man-made from dredged coral (USAF, 2004).

Coral Reefs

The potential coral reef area within the 10-fathom curve of Johnston Atoll is estimated at 150 square kilometers (Rohmann et al. 2005). Johnston Atoll, which has 45 scleractinian and hydrozoan corals present, has fewer coral species than the Hawaiian Islands. The reef is composed of alternating sand/loose coral and live coral, with the most dominant coral species present being table coral (*Acropora*). The coral *Montipora* is also widely found. Approximately 300 species of fish have been recorded in the nearshore waters and reefs of Johnston Atoll. This number is smaller than that of other islands in the central Pacific, and is likely due to Johnston Atoll's small size and remote location. One species of angelfish, *Centropyge nahackyi*, is endemic (USAF, 2004).

Deep Reef Slope and Pelagic Habitats

Information on the deep reef slope around Johnston Atoll and the marine life it supports is limited; however, the area of deep reef slope is not believed to be extensive.

Sea surface temperatures of the EEZ around Johnston Atoll are often 27°–30° C.[23] Although the depth of the mixed layer in the pelagic waters around Johnston Atoll is seasonally variable, average mixed layer depth is around 80 meters (R. Moffitt, PIFSC, personal communication).

[23] http://oceanwatch.pifsc.noaa.gov/

Pelagic Fishes
Oceanic pelagic fish that are likely to be affected by troll and handline fishing in the PRI include skipjack, yellowfin tuna, bigeye tuna and blue marlin. There has been no commercial fishing in the Johnston Atoll Unit since the Monument was established.

Sea Turtles
Threatened green and endangered hawksbill sea turtles have been surveyed at Johnston Atoll. It is estimated that nearly 200 green sea turtles forage near its southern shore. Following a 28-day long assessment in 1983, it was concluded that green turtles do not nest at Johnston Atoll (Balazs, 1985). The same report documented observations of two leatherback turtles (*Dermochelys coriacea*) on separate occasions around the atoll.

Marine Mammals
The following marine mammals have been observed at Johnston Atoll:

Hawaiian monk seals, humpback whales, Cuvier's beaked whales, spinner dolphins, and bottlenose dolphins (USAF, 2004). Most marine mammals observed near Johnston Atoll occur outside the lagoon. However, a Cuvier's beaked whale has been seen inside the lagoon.

A female Hawaiian monk seal appeared at Johnston Atoll in 1968. It was tagged as a pup on Laysan and was the first to be recorded outside the Hawaiian archipelago. It stayed in the area until at least mid-August 1972. Also, in 1969 an untagged female hauled out and gave birth to a pup; the female left a month or so later and the pup remained until it died in 1971. Marks on the carcass indicated that the cause of death was probably a shark attack (Amerson and Shelton, 1976). Nine adult males were relocated to Johnston Atoll from Laysan Island in 1984 and another two were relocated from French Frigate Shoals in 1998[24]). In July 1999, a tagged adult female monk seal from French Frigate Shoals arrived at Johnston Atoll and remained there for about a year (NMFS, 2010).

Seabirds
Johnston Atoll supports nesting and foraging for a variety of both resident and migratory seabirds. A list of seabirds and shorebirds reported from Johnston Atoll is found in Table 5, above.

Social Environment
Although both the U.S. and Great Britain annexed Johnston Atoll in the mid-1850s, only the U.S., via the American Guano Company, mined phosphates from the island (CIA World Fact Book). President Calvin Coolidge designated Johnston Island as a wildlife refuge in 1926, and in 1934 the U.S. Navy administered the area. In 1948, Johnston Island was managed by the U.S. Air Force, which used the area for high-altitude nuclear tests in the 1950s and 1960s. Until 2000, Johnston Atoll was managed by the U.S. Department of Defense as a storage and disposal site for chemical weapons. In 2004, cleanup and closure of the storage and disposal facilities was completed and the island

[24] http://www.fpir.noaa.gov/Library/PRD/Hawaiian%20monk%20seal/HMS_natural_history_timelineWEB.pdf

became uninhabited. Currently, the USFWS manages Johnston Atoll as a National Wildlife Refuge.

The Coral Reef Ecosystems FMP (69 FR 8336) established a low-use zone from 0 to 50 fm around Johnston Atoll which was incorporated into the PRI FEP (WPFMC, 2009c).

### 3.2.2 Commercial fishing in the Pacific Remote Islands Monument

Table 6 shows the number of FEP permits issued to fishermen to authorize fishing for MUS in the PRIA from 2007 to 2009, prior to the establishment of the Monument. Not all of the permits issued are believed to have been used.

Table 6: Number of PRIA FEP permits issued, 2007-2009.
Source: NMFS PIRO

| Fishery | Permits issued |
|---|---|
| PRIA troll handline | 23 |
| PRIA bottomfish | 14 |
| PRIA crustaceans | 10 |
| PRIA precious corals | 0 |
| PRIA coral reef | 0 |

The primary commercial fishing that has occurred throughout the PRIA in recent years has involved longline and purse seine fisheries. Commercial fishing within 50 nm of each Pacific Remote Island was prohibited by the Proclamation in 2009.

### 3.2.3 Non-commercial fishing in the Pacific Remote Islands Monument

Recreational and subsistence fishing occurs on a limited basis by the temporary workers at and visitors to Palmyra Atoll. Small outboard motor boats are used to fish generally within 12 nm of shore for subsistence and recreational purposes. No fish or coolers of fish are allowed to be taken off island by plane or ship. The fishing occurs primarily on the southern and western sides of the atoll, and yellowfin tuna and wahoo are the most commonly caught species. Based on a survey during the late 1980s, catch was dominated by reef fish and included soldierfish (Holocentridae). Other fish taken included bigeyes (Priacanthidae), flagtails (Khuliidae), mullet (Mugilidae), goatfish (Mullidae), jacks (Carangidae), parrotfish (Scaridae), and surgeonfishes (Acanthuridae). As an example of more recent fishing activity, between May and September 2006, 28 tuna (weighing between 4.5 and 28 kg) and eight wahoo (weighing between 8.6 and 15 kg) were caught during 17 fishing trips. Non-target species, primarily grey reef sharks, are caught as bycatch, but are de-hooked and released whenever possible. In the same period, 13 grey reef sharks were hooked, 10 of which were released. Bonefish (*Albula vulpes*) fishing and

catch-and-release fishing on sand flats in the lagoons are also allowed at Palmyra for recreational purposes in the lagoon (Brainard et al. 2005). [25]

At Wake Atoll, the residents currently use two small fishing boats for subsistence and recreational fishing. Wahoo is the most commonly caught pelagic fish. Stuffed trophies of large tuna and marlin that have been caught around the island are displayed in the operations office (Miller et al., 2008).

### 3.2.4 Potentially affected target, non-target, and bycatch species

Management unit species (MUS) were established under the PRIA FEP and the Pelagics FEP, and these occur within all units of the Monument. For the reader's interest, a complete list of MUS managed under the FEPs is found in the PRIA and Pelagics FEPs (WPFMC, 2009c, 2009d). These species lists contain target, non-target and bycatch species that are typically caught by the fisheries which are described in sections 3.2.2 and 3.2.3 of this document.

Of the species most likely to be caught by non-commercial fisheries within the Monument, and commercial fisheries outside of 50nm, bigeye tuna and yellowfin tuna are the only fish stocks that are of management concern. Bigeye tuna in the Western and central Pacific Ocean (WCPO) is currently experiencing overfishing but is not overfished (Harley et al., 2010). Although yellowfin tuna in the WCPO is not experiencing overfishing and is not overfished the WCPFC is concerned about the stock assessment status since the stock is estimated to be approaching the maximum sustainable yield based fishing mortality and biomass thresholds (Langley et al., 2011). International management measures for these species include commercial longline catch limits, as well as purse seine effort limits and prohibition periods on the use of fish aggregating devices.

The low amount of non-commercial pelagic fishing in the PRI Monument is not currently affecting stock status of either species. Commercial longline tuna fishing beyond 50nm of the Monument is regulated by the Council and NMFS and managed under catch limits and other regulations.

### 3.2.5 Essential Fish Habitat in the PRI

Essential fish habitat (EFH) and habitat areas of particular concern (HAPC) are designated in various portions of the PRIA. EFH is listed in Table 13 in Section 5. Affected EFH in the PRI includes: Bottomfish EFH including the water column and habitat down to 400 meters; Coral reef ecosystem EFH which includes the water column and benthic substrate to a depth of 100 meters; Crustaceans EFH which includes bottom habitat from the shoreline to a depth of 100 meters, and Pelagics EFH which includes the water column down to 1,000 meters. These EFH designations include EFH for all life stages. HAPC has been determined to be all coral reefs in the PRIA and the water column above seamounts and banks down to 1,000 meters. At present, no fishery under the

[25] http://ccma.nos.noaa.gov/ecosystems/coralreef/coral_report_2005/prias_ch12_c.pdf

Council's jurisdiction has been found to adversely affect the EFH or HAPC of any MUS (WPFMC 2007).

## 3.3 American Samoa

### 3.3.1 Overview of American Samoa

American Samoa is comprised of five volcanic (high) islands (Tutuila, Aunu‘u, Ofu, Olosega, and Ta‘u) and two low islands: Rose Atoll and Swains Island (Figure 20). Tutuila, the largest island at 55 square miles is the center of government and business. Aunu'u, a satellite of Tutuila, lies one-quarter mile off its southeast coast. The three islands of Ofu, Olosega, and Ta‘u are collectively referred to as the Manu‘a Islands (with a total land area of less than 20 square miles) and lie 70 miles east of Tutuila. Swains Island lies 200 miles north of Tutuila. Tutuila, Manua, and Rose Atoll are between the 14°–15° S latitude, and Swains Island lies at 11° S latitude. Swains Island is, geographically part of the Tokelau archipelago. The region was formerly believed to be relatively geologically inactive with few seamounts or guyots in comparison to other Polynesian countries. New evidence indicates that the region is volcanically active. The majority of the islands rise from deep (4,000 m) oceanic depths.

The total land mass of American Samoa is about 200 square kilometers, surrounded by a EEZ of approximately 390,000 square kilometers. The largest island, Tutuila, is nearly bisected by Pago Pago Harbor, the deepest and one of the most sheltered embayments in the South Pacific. American Samoa experiences southeast trade winds that result in frequent rains and a warm tropical climate. The year-round air temperatures range from 70° to 90° F. Humidity averages 80 percent during most of the year. The average rainfall at Pago Pago International Airport is 130 inches per year, while Pago Pago Harbor, only 4.5 miles away, receives an average of 200 inches of rainfall per year (TPC/Dept. of Commerce, 2000).

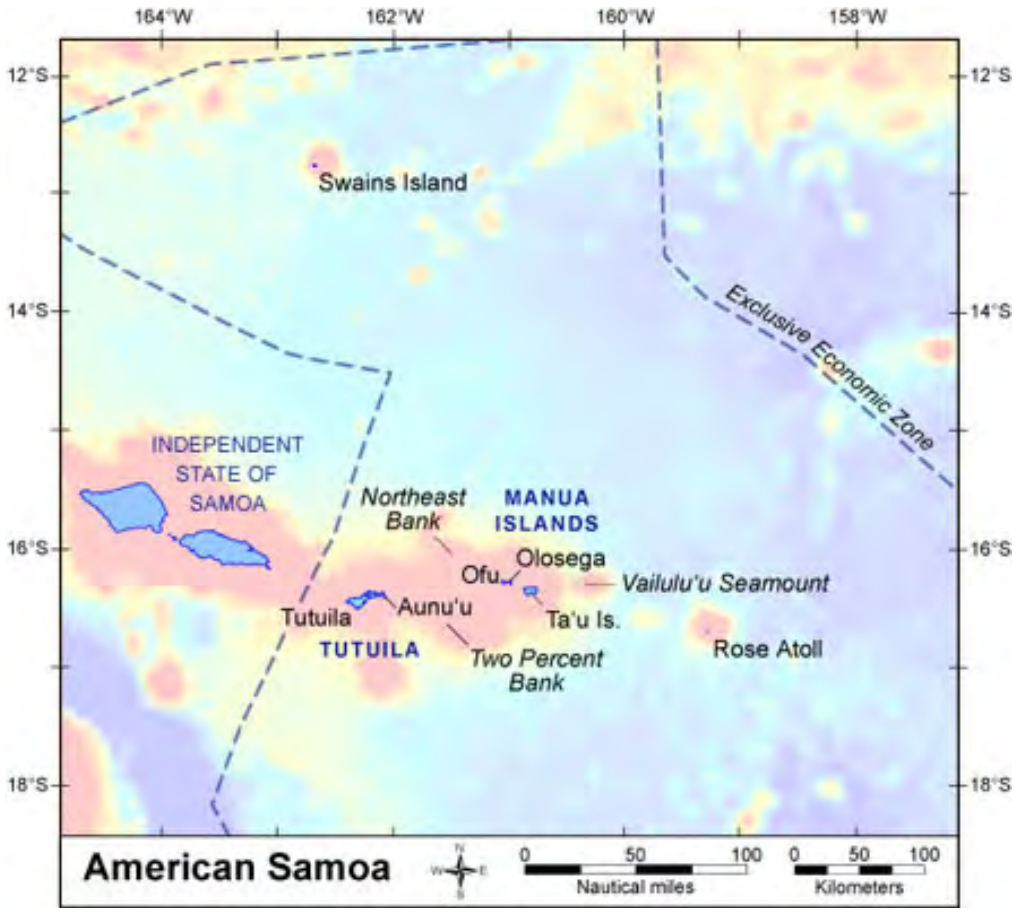



Figure 20. Graphic depicting American Samoa and the U.S. EEZ.
Source: WCPFMC, 2009a.

### 3.3.2 Overview of Rose Atoll Monument

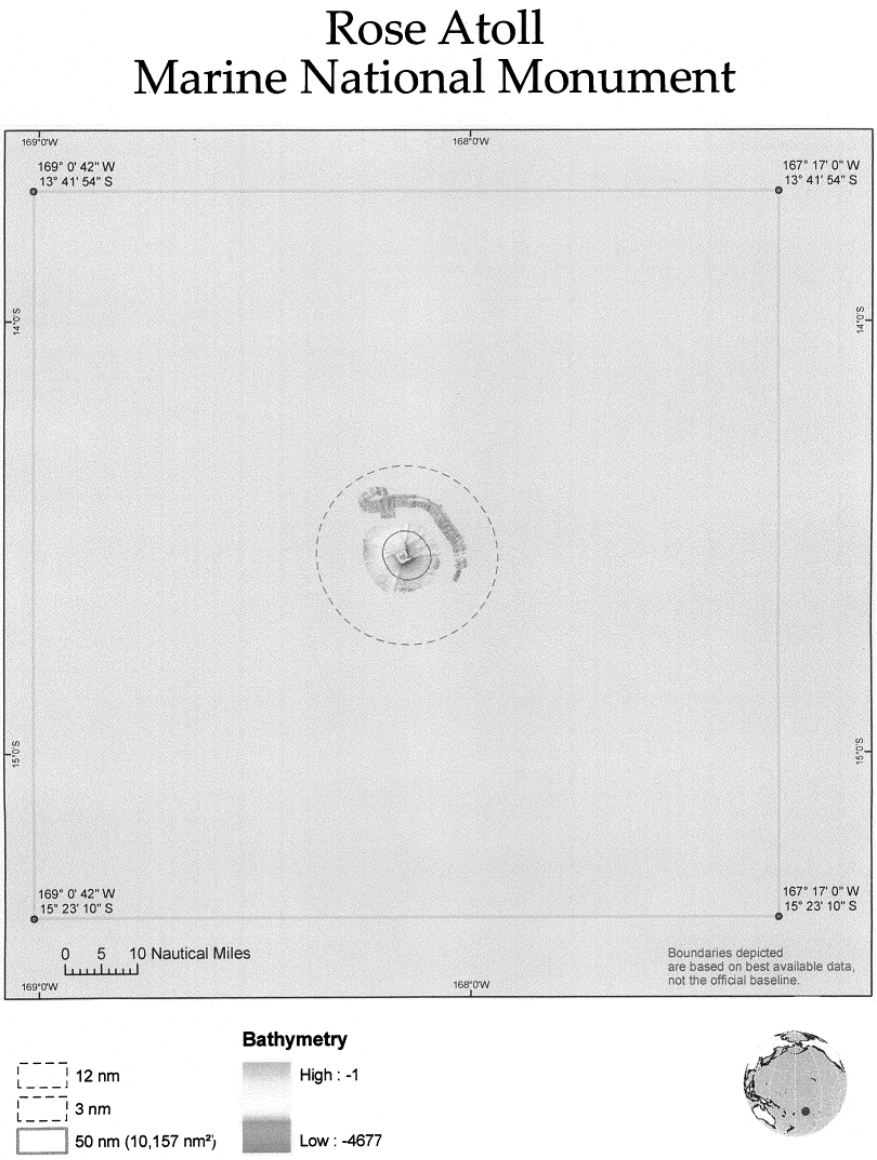



Figure 21. Rose Atoll Marine National Monument.
Source: USFWS

Rose Atoll, which is traditionally known as *Muliva'a or Nu'u o Manu*, is located 78 nm east of Ta'u in the Manua Islands and approximately 156 nm east-southeast of Pago Pago Harbor. It is the easternmost Samoan island and the only atoll in the Samoan Archipelago. The Samoan Islands are believed to have been inhabited since as early as 3,000 years ago, and Polynesians have harvested resources from Rose Atoll for millennia. Several species, including the giant clam, were traditionally harvested at Rose Atoll and used for cultural celebrations and events.[26]

[26] http://www.fws.gov/refuges/profiles/History.cfm?ID=12514

Boundaries of the Monument are shown in Figure 21. Rose Atoll is nearly square, with its sides approximately one mile in length. It is one of the smallest atolls in the world, consisting of two low sandy islets, Rose and Sand. Each is located on a coralline algal reef rim enclosing a lagoon (Figure 22). A single channel eight to 48 feet deep links the lagoon to the sea. The lagoon is approximately 1.2 miles wide and up to about 65 feet deep, and covers 1,575 acres. Rose and Sand Islands cover areas of about 14 and seven acres respectively. Rose Atoll was established as a National Wildlife Refuge by cooperative agreement between the Government of American Samoa and the Bureau of Sport Fisheries and Wildlife (a now abolished organization part of which became the U.S. Fish and Wildlife Service) on August 24, 1973. In 1975, President Ford issued Proclamation 4347, which conveyed the submerged lands (0-3 miles) around Rose Atoll under the joint administrative jurisdiction of the Dept. Commerce and Dept. of Interior.[27] On January 6, 2009, President George W. Bush established the Rose Atoll Monument.

Figure 22. Aerial photograph of Rose Atoll.
Source: USFWS[28]

The following is taken directly from President Bush's Proclamation establishing the Rose Atoll Marine National Monument and describes the resources of the Monument.

*"One of the most striking features of Rose Atoll is the pink hue of fringing reef caused by the dominance of coralline algae, which is the primary reef-building species. Though there are roughly 100 species of stony corals, the shallow reefs are dominated by crustose coralline algae, making them distinctive and quite different from those found at other Samoan islands. The marine area provides isolated, unmolested nesting grounds for green and hawksbill turtles and has the largest number of nesting turtles in American Samoa. Its waters are frequented by numerous large predators: whitetip reef sharks, blacktip reef sharks, gray reef sharks, snappers, jacks, groupers, and barracudas. Species that have faced depletion elsewhere, some of which have declined worldwide by as much as 98 percent, are found in abundance at Rose Atoll, including giant clams,*

[27] http://www.fws.gov/roseatoll/
[28] http://www.gpo.gov/fdsys/pkg/FR-2009-01-12/pdf/E9-505.pdf

*Maori wrasse, large parrotfishes, and blacktip, whitetip, and gray reef sharks. Humpback whales, pilot whales, and the porpoise genus* Stenella *have all been spotted at Rose Atoll. There are 272 species of reef fish, with seven species first described by scientists at Rose and dozens more new species discovered on the first deep water dive to 200 meters. Recent submersible dives around Rose Atoll have revealed abundant marine life, deep sea coral forests, and several new fish and invertebrate species. Rose Atoll supports most of the seabird population of American Samoa, including 12 federally protected migratory seabirds, five species of federally protected shorebirds, and a migrant forest bird, the long-tailed cuckoo. Rare species of nesting petrels, shearwaters, and terns are thriving at Rose Atoll and increasing in number."*

The boundaries of the existing large vessel prohibited area were recently modified to be more congruent with the Monument boundaries (77 FR 34260, June 11, 2012). All vessels over 50 ft long are prohibited from fishing within the large vessel exclusion zone as well as in the Rose Atoll MNM (Figure 23).

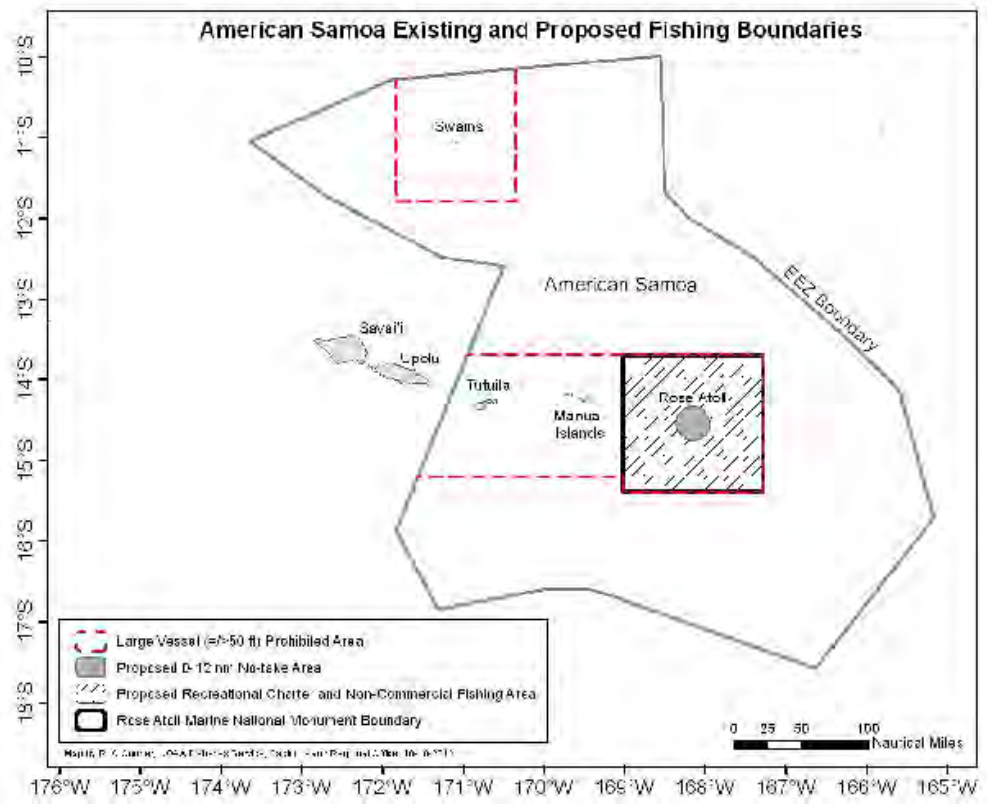



Figure 23. Graphic showing the location of the Rose Atoll Monument with Large Vessel (>50ft) Prohibited Area and proposed fishery management areas.
Source: WPFMC and NMFS 2012a

### 3.3.3 Socio-Economic Environment of American Samoa

American Samoa has been a U.S. Territory since 1899, in part because of U.S. interests in the excellent harbor at Pago Pago. New Zealand occupied Western Samoa in 1914, and in

1962 Western Samoa gained independence. In 1997, Western Samoa changed its name to Samoa. The demarcation between Samoa and American Samoa is largely political. Cultural and commercial exchange continues with families living and commuting between eastern and western Samoa. The population of American Samoa is more than 89 percent native Samoan. This population is descended from the aboriginal people who, prior to European contact, occupied and exercised sovereignty in Samoa.

American Samoa's history, culture, geography, and relationship with the U.S. are vastly different from those of the typical community in the continental U.S. and are closely related to the heritage, traditions, and culture of neighboring independent Samoa. The seven islands that make up American Samoa were ceded in 1900 and 1904 to the U.S. and governed by the U.S. Navy until 1951, when administration was passed to the U.S. Department of the Interior, which continues to provide technical assistance, represent territorial views to the federal government, and oversee federal expenditures and operations. American Samoa elected its first governor in 1978, and is represented by a non-voting member of the U.S. Congress.

Tutuila, American Samoa's largest island, is the center of government and business, and is home to 90 percent of the Territory's estimated population of 63,000 residents. People born in the Territory are classified as U.S. nationals and categorized as Native Americans by the U.S. government (Territorial Planning Commission (TPC) and Department of Commerce, 2000). The only U.S. territory south of the equator, American Samoa is considered "unincorporated" because the U.S. Constitution does not apply in full, even though it is under U.S. sovereignty (TPC and DOC, 2000). The Samoan Constitution, the Convention of 1899, and subsequent amendments and authority recognize the primacy of Samoan custom over all sources of traditional law. Article 1, Section 3 of the Bill of Rights of the Constitution of American Samoa states: "It shall be the policy of the government of American Samoa to protect persons of Samoan Ancestry against alienation of their lands and the destruction of the Samoan way of life and language, contrary to their best interests. Such legislation as may be necessary may be enacted to protect the lands, customs, culture and traditional Samoan family organization of persons of Samoan ancestry, and to encourage business enterprises by such persons. No change in the law respecting the alienation or transfer of land or any interest therein, shall be effective unless the same be approved by two successive legislatures by a two-thirds vote of the entire membership of each house and by the Governor."

American Samoa's vision for the future is not fundamentally different from that of any other people in the U.S., but American Samoa has additional objectives that are related to its covenant with the U.S., its own constitution, and its distinctive culture (TPC and Department of Commerce, 2000).

From the time of the Deeds of Cession to the present, despite increasing Western influences on American Samoa, native American Samoans have expressed a very strong preference for and commitment to the preservation of their traditional *matai* (chief), *'aiga* (extended family), and communal land system, which provides for social continuity,

structure, and order. The traditional system is ancient and complex, containing nuances that are not quickly understood by outsiders (TPC and DOC, 2000).

However, within the ethnographic literature on Samoan culture, there are examples where the use of cash in contemporary life is common to purchase commodities as exchange items or to use cash directly in customary exchanges and expected/obligatory contributions to various culturally important ceremonies that help perpetuate *Fa'a-Samoa*, the valued and adaptable "Samoan way of Life." Samoans make rational economic decisions to invest in their *'aiga* and their *matai* and their reputations through contributions to culturally important ceremonies and events (O'Meara, 2002). Cash is often used to invest in fine mats for weddings and funerals (Schoeffel, 1999), and access to cash is important for a *matai* to be successful. Even non-resident *matai* titleholders are expected to remit cash for ceremonial and cultural obligations (Yamamoto, 1994) and for *malaga* (migration or movements back and forth) (Lilomaiva-Doktor, 1999). "Cash has become an indispensable part of exchanges in *malaga*, and in any cultural exchanges" (Logovili, 1999). Cash is increasingly used directly as a contribution in customary exchange and it may or may not have a negotiated direct equivalency for something else since the purpose is to serve and enhance the reputation and status of the *'aiga*. Samoans are said to engage in and distinguish Samoan capitalist exchanges from Samoan exchanges (Gershon, 2000). The former are based more on equivalencies and perhaps a profit motive and the latter on the importance and value of genealogical connections and perhaps an *'aiga* social status motive. Customary exchange to support Fa'a-Samoa more closely fits Samoan exchange as it is motivated not for profit per se, but for family and *'aiga* collective solidarity and reputation.

Community Profile of American Samoa

The population of American Samoa grew rapidly at the end of the 20th century, doubling in just over 25 years from 32,297 in 1980 to an estimated 66,900 in 2006. On April 1, 2010, however, the population was 55,519. This represented a decrease of 3.1 percent from the 2000 Census population of 57,291 (U.S Department of Commerce, 2011).

According to the U.S. Department of Commerce, the American Samoa labor force participation rate in 2000 was 52 percent. By comparison, the overall U.S. rate was approximately 67 percent in 2000 (U.S. Department of Commerce, 2000). Subsistence activities provide a significant contribution to households; 16 percent of the population over 16 years of age is engaged in some form of subsistence activity, and 44 percent of those engaged in subsistence activity have no other source of employment.

The Manua Islands (and Swain's Island) are characterized by very different demographic and employment trends than the main island of Tutuila. On the Manua Islands, over forty percent of the population (over 16 years) engages in subsistence activities for a living. On Swain's Island, this number reaches fifty-five percent (U.S. Census Bureau, 2000). Kilarski et al. (2005) found the level of subsistence fishing on Olosega (one of the Manua islands) to be the highest of all villages surveyed in their study.

Unlike the youthful population structure on Tutuila, the population of the Manua Islands is characterized by a high proportion of older persons. Twenty-four percent of the Manua population is forty-five years old and above, compared to only sixteen percent of Tutuila's population. While the percent of the population under 15 is fairly similar throughout American Samoa, only thirty-four percent of the population of Manua falls between ages 15-44, compared to forty-four percent of Tutuila's population. This is largely due to out-migration from the smaller islands to Tutuila or other locations for secondary schooling and employment opportunities.

Economic and Employment Overview

American Samoa's economy is dependent on two primary externally funded income sources: the American Samoan government (ASG), which receives significant operational and capital grants from the Federal government ($117 million of $182 million total government revenue in FY 2005) (American Samoa Statistical Yearbook 2006), and the tuna cannery on the main island of Tutuila. Tuna exports in 2006 totaled 20.7 million cases (about 147 thousand tons) valued at $431.5 million (U.S. Department of Labor, 2008). These two primary income sources, in turn, support a services sector that derives from and complements the first two (U.S. Department of Labor, 2008). American Samoa's total exports in 2006 were valued at $438.5 million (U.S. Department of Labor, 2008). Canned tuna comprises the bulk of exports, which also include a limited quantity of grass mats and other handicrafts. Agricultural production in American Samoa includes taro, coconuts, bananas, oranges, pineapples, papayas, breadfruit, and yams; additional food must be imported. Shipping and transferring services connect American Samoa with the mainland United States, Samoa, Fiji, Hawaii, Australia, New Zealand, and Japan (U.S. Department of Labor, 2007a).

An estimated 17,395 people were employed in American Samoa in 2004. The American Samoa Government (ASG) is the territory's largest single employer. In 2004, thirty-four percent of the territory's population was employed by the ASG, twenty-seven percent by the canneries, and thirty-nine percent by private industry or other sectors (American Samoa Statistical Yearbook, 2006). Based on 2000 census data, American Samoa's median household income was reported as $18,219 in 2000, with 58% of families living below the national poverty level. The percentage having higher household incomes (>$50,000) declined from 20% in 1990 to 12% in 2000, while those with lower household incomes (<$10,000) increased from 22% to 25% during the same period (U.S. Census Bureau, 2000). The cost of living in American Samoa is generally lower than in the United States, with the majority of household income spent on store-bought food and very little spent on housing because of the islands' land tenure structure[29] (DOI, 2007).

American Samoa's narrow economic base does not generate a level of local revenues adequate to provide essential public services to its citizens. To meet these needs, the Office of Insular Affairs (OIA) annually provides direct grant support for American Samoa general government operations. In 2007, OAI allocated approximately $23 million

[29] For the majority of households, housing costs amount to less than 10% of monthly income (U.S. Census 2000).

for operations, plus substantial additional funding for infrastructure and other types of support activities, including marine management (DOI Office of Insular Affairs, 2007a).

In the fall of 2010, Tri Marine Group, Ltd., one of the world's largest tuna supply companies, announced that it had secured the lease of the cannery facility that was previously occupied by Chicken of the Sea. Tri Marine will be conducting tuna canning and fresh tuna fish export under its subsidiary named Samoa Tuna Processors, Inc (STP).

Importance of Fishing in American Samoa

American Samoan dependence on fishing undoubtedly goes back as far to the first inhabitants of the islands of the Samoan archipelago, which is estimated to be about 3,500 years ago (Severance and Franco, 1989). Many aspects of the culture have changed in contemporary times, but American Samoans have retained a traditional social system with strong linkages to fishing. Centered around *'aiga* and allegiance to *matai*, this system is rooted in the economics and politics of communally held village land. It has effectively resisted Euro-American colonial influence and has contributed to a contemporary cultural resiliency unique in the Pacific Islands Region (Severance et al., 1999).

Traditional values still exert a strong influence on when and why American Samoans fish, how they distribute their catch, and the meaning of fish within the society. When distributed, fish and other resources move through a complex and culturally embedded exchange system that supports the food needs of *'aiga*, as well as the status of both *matai* and village ministers (Severance et al., 1999). A 1996 survey of 60 fishermen in American Samoa (estimated by DMWR staff to be over half of the known active fishermen at that time) found a variety of culturally defined named gifts of fish to meet cultural and ceremonial needs and obligations sales of fish at reduced prices. Thirty percent of those surveyed reported that half or more of their catch was sold as *fa'ataualofa* (to give or sell at a reduced price to friends or kinsmen as an expression of an ongoing sustained relationship). Forty-two percent reported that half or more of their catch was not sold. Of the unsold portion of the catch, thirty-five percent was reportedly contributed to birthdays, weddings and funerals and twenty-two percent to culturally significant holidays. The number of times fishermen reported contributing to *to'onai* (Sunday afternoon serving of village chiefs) ranged widely but averaged about 20 times per year. Twenty-two percent of the fishermen also reported that half or more of their trips in that year were made at the request of *matai* (village chief). Nineteen percent also reported that half or more of the unsold portion of the catch was contributed to their *matai* as *tautua* (service) and this percentage is artificially low since twenty-five percent of the fishermen surveyed held their own *matai* titles. While eighteen percent reported almost no contributions, thirty-two percent also reported contributing to *fa'alavelave* (obligation to contribute to an event on behalf of the *matai* and *`aiga*) three or more times per year. Thirty-two percent also reported giving away half or more of the unsold portion of their fish as *fesoasoani* (to help out: a less formal more individualized response to a less serious need than in the case of Fa'alavelave) (Severance, et.al. n.d.).

Because participants in American Samoa's fisheries are not concentrated in specific locales but rather reside in villages throughout the islands, amendments to the Council's

FMPs established the island of American Samoa as a single fishing community (64 FR 19067; April 19, 1999).

Pago Pago is home to a natural protected deepwater harbor, providing one of the best natural shelters anywhere in Pacific. American Samoa has relatively reliable power, water and waste treatment systems, and telecommunications infrastructure.

Fishing Activity in American Samoa

The Dory Project signaled the introduction of modern fishing technology in American Samoa. Funded by the American Samoa Office of Economic Opportunity (OEO), the Dory Project was initiated in 1972, providing easy credit and loans to fishermen to develop offshore fisheries. The project developed a boat-building facility that produced 23 vessels over a three-year period. Records indicate that seventy percent of these dories were engaged in bottomfishing activities, conducted primarily at night time on the shallow reef area around Tutuila. In the 1980s, dories were replaced by larger, double-hulled aluminum vessels called *alia*. The alia catamaran is typically 28 to 32 foot long and powered by an outboard-engine. Trolling and bottomfishing were the major methods of fishing, and spearfishing, netting, and vertical longlining were undertaken on occasion. Between 1982 and 1988, the bottomfish landings comprised as much as half of the total catch of the commercial fishery in American Samoa.

However, after 1988 the nature of American Samoa's commercial fisheries changed dramatically, with a shift in importance from bottomfish to trolling and longlining for pelagic species. Beginning in 1995, some alia captains began using horizontal longline gear. In 1996, horizontal longlining became the largest commercial fishery in American Samoa based on total landed weight of the catch, even though only about one-third of the fleet had converted to this method. Over the next few years the fleet grew rapidly with the addition of new alias up to about 38 feet in length and, more significantly, with the addition of other larger mono-hull vessels that fished much longer trips. The primary target species for longline vessels is albacore tuna, but the fishery has also produced substantial increases in landings of yellowfin tuna, bigeye tuna, wahoo, blue marlin, mahimahi, and some other incidentally caught species.

Today the fisheries in American Samoa can be broadly categorized (in terms of habitat and target species) as pelagic fisheries, bottomfishing in deep reefs, and the nearshore coral reef fisheries. For creel monitoring program purposes, fisheries is either subsistence (shore-based and mostly for personal consumption) or commercial (boat-based and mostly sold). Bottomfishing is actually a combination of deep reef fishing and/or pelagic fishing (trolling). The coral reef fishery involves gleaning, spearfishing (snorkel or free dive from shore or using boat), rod and reel using nylon lines and metal hooks, bamboo pole, throw nets and gillnets. In 2011, an estimated 12 boats landed 35,800 lb of bottomfish (of which 35,297 lb was commercial) and valued at $101,019 with an adjusted price of $2.89 per lb (WPFMC, 2012c). These vessels are typically less than 35 feet long and conduct trolling for pelagic species while traveling to and from the southern banks off of Tutuila to bottomfish.

The largest fishery is the pelagic deep-set longline fishery that targets albacore tuna. The American Samoa longline fishery is a limited entry fishery requiring permits and logbooks and the accommodation of observers upon request by NMFS. In 2012, 26 vessels set 13,171,000 hooks and landed 10.6 million lb of fish valued at 10.4 million dollars with an average price of $0.89 per lb (WPFMC, 2012b). Most of these vessels are greater than 50 feet in length and fish outside of the 50nm large vessel prohibited areas around Tutuila, Rose Atoll, and Swains Island. Prior to establishment of the Rose Atoll MNM, two longline vessels fished inside the large vessel prohibited areas. These vessels were exempted from the prohibition under the original permit process for American Samoa limited access permits. The landings information is confidential and cannot be reported here, however; activity around the Rose Atoll has been historically low. The Proclamation's prohibition on commercial fishing in the Monument does not contain an exception for the two vessels.

From three to 15 vessels a year have made purse seine sets in the EEZ around American Samoa from 1997-2007. Catches of skipjack and yellowfin tunas have ranged from zero up to over 162 mt (357,586 lb) with an annual average of 48.3 mt (106,461 lb). This amount of harvest may not be substantial based on total skipjack landings for the entire western and central Pacific Ocean or WCPO (1.46 million mt for 2007). Using the average purse seine catches in the EEZ around American Samoa, and the 2007 U.S. purse seine fleet catch data, gross receipts from purse seining in the EEZ around American Samoa represented 0.01 percent of total skipjack landings made per year and a potential average revenue of $6,120 per vessel.

During 2005, the various fishery monitoring programs in American Samoa identified 54 active fishing vessels, 51 home ported on Tutuila and three in the Manua islands. Many of these vessels participated in more than one fishery, and 41 of the Tutuila boats (including 27 vessels which were over 50 feet in length) did at least some longlining. Of the 54 total boats, 13 participated in the troll and bottomfish fisheries, and 4 were used in other forms of fishing activities. On average, the alia fleet on Tutuila consisted of 3-man crews that fished 11 hours and caught about 173 pounds of fish per trip; the Manua-based fleet typically had two-man crews that fished about five hours and landed 81 pounds of fish per trip. Essentially all of the longlining was based out of Tutuila, where the majority of the catch was offloaded to the canneries.

Commercial landing data for American Samoa between 1995 and 2007 shows an increase in both landings and revenue over time. Increases were initially associated with the use of alias for longlining beginning in 1995, and then increased with the arrival of the much larger monohull longline vessels in the early 2000s. The 14,366,471 pounds landed in 2007 was the second highest on record, with the total value of the catch for this year being the highest on record.

American Samoa has a 50nm exclusion zone for large vessels greater than 50 feet, designed to protect the islands' local, small-scale fishery participants. In 2008, the Council voted to close the waters 75nm surrounding American Samoa to purse seine vessels; however, this proposal was not implemented. While purse seiners do not fish

frequently in American Samoa's waters, the Council determined that a recent increase in these vessels had the potential to disproportionately impact the local fishery. Purse seine vessels continue to be a major supplier of fish to the islands' cannery, but virtually all of their catch comes from waters outside of American Samoa's exclusive economic zone.

Until 1995, boat-based fishing in Tutuila and Manua was primarily trolling and bottomfish handlining, with the pelagic fishery in American Samoa being largely troll-based. In 1996, the majority of trolling fishermen converted their alias to longlining, although some of them continued to troll occasionally. Consequently, the fishery has experienced a decline in its catch and effort, especially since larger commercial trollers were most often the ones who converted to longlining. In 1996, seven of the 35 trolling vessels were 25-40 foot long pleasure boats, captains of which fished for recreation on weekends, holidays, or competed in tournaments; the catch was rarely sold.

Yellowfin and skipjack tuna have always been the major trolling landings. In 1986, when trolling was the only pelagic fishing method, there were 53 boats landing 137,100 pounds of skipjack tuna and 54,622 pounds of yellowfin tuna by trolling. In 1996 when longlining was just getting started, these two species comprised 75% of the trolling landings with 35 boats landing 56,562 pounds of skipjack and 36,551 pounds of yellowfin tuna. Mahimahi, blue marlin and wahoo made up a significant proportion of the other 25% of the catch. By 2001, when longlining became the dominant fishing method in American Samoa, the number of trolling boats and their total catch dropped dramatically. Only 18 boats were engaging in trolling, landing 15,126 pounds of skipjack and 5,513 pounds of yellowfin tuna.

Most local fishing and seafood gathering activities for local consumption in American Samoa take place largely in the shallow reef-flat areas between the outer fringing reef and the shoreline. Incidentally caught species from boats supplying the cannery occasionally sell wahoo and other incidentally caught species at little to no profit, which many believe keeps local market prices for fish low (Fini Aitaoto, personal communication). The availability of cheap incidental catch, fish imports from Western Samoa, and an increased reliance on imported store-bought food, has discouraged development of locally based offshore fishing for the local market.

In 2005, American Samoa's Comprehensive Economic Development Strategy included rehabilitation of the Farmer's Market in Pago Pago, including redesign of access and grounds, construction of a new two-story building, and addition of a fish market and seafood section for local fishermen's catches. The new marketplace opened in 2010, but the fish market side has yet to operate.

Fish and fishing play a stronger and more central role in the Manua Islands when compared with the main island of Tutuila. While the subsistence contribution of local fish to the diet of most islanders on the island of Tutuila may be small, it remains a significant source of food to Manua islanders. Manua residents continue to rely on nearshore fish as a substantial portion of their diet, as transportation limitations make store bought food harder to come by and more expensive. Demographic trends also differ dramatically in

the Manua Islands, where the population has aged (and decreased) significantly over recent years. These factors allow the lifestyle of Manua islanders to more closely resemble the islands' traditional past, with local residents more reliant on nearshore marine resources. Manua islanders continue to use some traditional fishing gear and techniques that are now rare or lost in Tutuila. Per capital fishing effort in Manua is also higher, but due to its remote location there is less detailed information about fish populations and fishing effort in Manua than on neighboring Tutuila.

Current Fishing at Rose Atoll

Until recently, in accordance with the Pelagics FEP permit program, two American Samoa limited access permit holders were granted exemptions that allowed longline fishing activity by large vessels in the large vessel prohibited area. A portion of this area is within the boundaries of the Rose Atoll MNM. Fishing activity and data for this area are confidential under MSFCMA section 402 and cannot be publicly disclosed, however; activity in the past was low and generally concentrated outside 50 nm of atoll, the outer boundaries of the Monument. Only one purse seine trip was made in the area that is now the Rose Atoll Monument between 1997 and 2007.

Under the American Samoa FEP, fishing for any MUS is prohibited within the no-take marine zone around Rose Atoll (0-50 fm). The 2009 Proclamation prohibited all commercial fishing within the Monument.

Generally, non-commercial and commercial bottomfish activity occurs on the nearshore and offshore reefs around Tutuila and Manua. In addition, the southern banks off of Tutuila tend to be fished by trolling method for pelagic species, as well as by hook and line for bottomfish. The level of effort for non-commercial fishing activity in the Rose Atoll Monument is unknown however it's likely that activity has been low since travel to this area is costly and the trip would be a difficult for such small vessels (less than 35 feet).

### 3.3.4 Potentially affected target, non-target, and bycatch species

Management unit species (MUS) were established under the American Samoa Archipelago FEP and the Pacific Pelagic FEP, and occur within the Rose Atoll MNM. For the reader's interest, a complete list of MUS managed under the FEPs may be found in the American Samoa and Pacific Pelagic FEPs (WPFMC, 2009a and 2009d). These species lists contain target and non-target species that are typically caught by the fisheries as described in sections 3.3.1.

Non-commercial fishing for bottomfish, crustaceans, precious coral and coral reef MUS is not expected to occur within Rose Atoll Monuments because the island is surrounded by a narrow reef slope that drops steeply into deep pelagic ocean waters very close to shore. Therefore, benthic habitat features that may support these fisheries are not likely to occur beyond 12 nm. The only fishery that is expected to be affected is non-commercial fishing for pelagic species using trolling gear in deep waters. Around American Samoa,

in 2010, the troll fishery landed 2,000 lb (less than 1 mt) of skipjack and the same amount for yellowfin tuna.

Of the species most likely to be caught by commercial and non-commercial fisheries in American Samoa, bigeye tuna and yellowfin tuna are the only fish stocks that are of management concern. These species have commercial longline catch limits and are monitored domestically and internationally to help ensure the pelagic fisheries of American Samoa are considered sustainable. Troll fishers fishing in pelagic waters of Rose Atoll are not likely to catch large amounts of bigeye tuna or yellowfin tuna.

### 3.3.5 Potentially affected protected resources

Sea Turtles

Information regarding sea turtles in American Samoa has come from opportunistic tagging of turtles, observed longline vessels, from dead (stranded) turtles and from research reports from the American Samoa Division of Marine and Wildlife Resources, the U.S. Fish and Wildlife Service monitor nesting by sea turtles (USFWS, 2011b), sea turtle recovery plans (NMFS and USFWS, 2009a-e), and from recent reviews of fisheries by NMFS.

Threatened green turtles and endangered hawksbill turtles are the most common species found in American Samoa waters. There is one record of an endangered leatherback turtle that was incidentally captured about five kilometers south of Swains Island and three records of threatened olive ridleys (two dead and one live sighting; Tagarino et al., 2008).

Hawksbill and green turtle populations have declined precipitously in American Samoa (Grant et al., 1997). Despite federal and territorial laws prohibiting the killing of sea turtles and an extensive education program, some sea turtles and eggs were harvested illegally in American Samoa (Grant et al., 1997). In addition to direct take of turtles and eggs by poachers, degradation of nesting habitat by coastal construction, environmental contaminants, and increased human activities are viewed as the major problems to the recovery of green and hawksbill turtle populations. Beach mining and beach erosion are also detrimental because the islands of American Samoa have very few beaches suitable for turtle nesting habitat. American Samoa's human population is one of the fastest growing of the Pacific Islands (USFWS and NMFS, 1998a and 1998b), and the people of the Samoan Archipelago have traditionally harvested sea turtles for food and the shell.

The American Samoa longline fishery is independently observed by NMFS-trained observers at a coverage rate of approximately 20 percent. Bycatch in the fishery is comprised mostly of sharks and other pelagic species (e.g., lancet fish) not retained due to little market value. Bycatch of sea turtles does occur in the American Samoa longline fishery and the fishery is in accordance with the provisions of the NMFS 2010 BiOp. An ESA Section 7 consultation was completed in 2010 on the impacts of the fishery on ESA listed marine mammals and sea turtles. NMFS concluded that the longline fishery is not likely to adversely affect loggerhead turtles, sperm whales, or humpback whales and will have no effect on blue, fin, or sei whales. The 2010 BiOp concluded that the American

Samoa deep-set longline fishery is not likely to jeopardize the continued existence or recovery of green turtles, hawksbill turtles, leatherback turtles, and olive ridley turtles.

Green Sea Turtle

The life cycle of the green sea turtle involves a series of long-distance migrations back and forth between their feeding and nesting areas (Craig, 2002). In American Samoa, sub-adult and adult green turtles occur in low abundance in nearshore waters around Tutuila, Ofu, Olosega, Ta`u and Swains Islands with sporadic, low-level green turtle nesting occurring on Tutuila and Swains Islands (Tagarino et al., 2008; Tagarino and Utzurrum, 2010). A May 2009 survey at Swains Island identified a total of 56 locations of pits/possible nests, turtle tracks, and evidence of pig activity (wallows) (Tagarino and Utzurrum, 2010). However, Rose Atoll is the primary green turtle nesting location in American Samoa with up to several dozen nests laid annually between October and March (review provided by Balazs, 2009). The number of annual nests is estimated to be 24-36 (Tuato‘o-Bartley et al., 1993). When they finish laying eggs green turtles leave Rose Atoll and migrate to their feeding grounds elsewhere in the South Pacific. After several years, the turtles will return to Rose Atoll to nest again. Every turtle returns to the same nesting and feeding areas throughout its life, but that does not necessarily mean that all turtles nesting at Rose Atoll will migrate to exactly the same feeding area. Two green turtles with tagged flippers, and three that were tracked by satellite after nesting at Rose Atoll, were recovered in Fiji, where they forage in seagrass and algae beds (Balazs et al., 1994; Craig et al., 2004). In addition, a green turtle with tagged flippers from Rose Atoll was found dead in Vanuatu less than one year later (G. H. Balazs 1994, cited in Grant et al., 1997; Craig et al., 2004). One female green turtle was re-sighted at Rose Atoll 9 years after she was initially tagged (Ponwith, 1990). Another satellite study detected long range migrations to Raiatea, in French Polynesia (Craig et al., 2004).

Green turtle nesting female numbers have declined globally by 48 to 67 percent over the past 20 to 30 years (Chaloupka et al., 2007). In the Pacific, the only major nesting populations (>2,000 nesting females) occur in Australia and Malaysia with smaller colonies in the insular Pacific. Using long-term nesting data, Chaloupka et al. (2008) reported at least four Pacific Ocean nesting populations of the green turtle are showing upward abundance trends that are most likely attributable to successful conservation measures that have prevented over-exploitation of turtles and protected important nesting habitat.

The American Samoa troll fishery has no reported interactions with green turtles, but potential vessel collisions have been covered by the Biological Opinion for western Pacific troll fisheries (NMFS, 2009). The BiOp concluded that the troll fishery is not likely to jeopardize the continued existence or recovery of green turtles, hawksbill turtles, leatherback turtles, and olive ridley turtles.

Hawksbill Sea Turtle

Endangered hawksbill turtles are circumtropical in distribution, generally occurring from latitudes 30° N to 30° S within the Atlantic, Pacific, and Indian Oceans and associated

bodies of water (NMFS and USFWS, 1998b). Hawksbill turtles are known in Samoan as *laumei uga or laumei ulumanu*. Hawksbills are solitary nesters, and are most commonly found at Tutuila and the Manua Islands, and are also known to nest at Swains Island (Tagarino and Utzurrum, 2008). These turtles could be occasionally poisonous -- in the late 1950s, people in Aunu'u got very sick after eating one. In October, 2007, a nest was found containing a total of 167 shells, of which there were 142 live baby turtles, four of which died, and 25 unhatched eggs were located. Students from the village of Amanave where the nest was found assisted and kept the hatchlings safe overnight until DMWR staff arrived the next morning when they all let the hatchlings free at Amanave Beach. DMWR believes it is the largest group of hawksbill hatchlings to have been found in American Samoa[30]. In the Samoan Islands (Samoa and American Samoa), it is estimated fewer than 30 hawksbills nest annually, and the nesting trends are declining (NMFS and USFWS, 2007b). The American Samoa troll fishery has no reported interactions with hawksbill sea turtles.

Leatherback Sea Turtle

Leatherback turtles are widely distributed throughout the oceans of the world. Their populations have declined greatly, particularly through the overharvest of eggs and incidental mortality from fishing (Sarti et al., 1996). Leather back turtles are very rarely seen in Guam. In 1993, the crew of an American Samoa government vessel engaged in experimental longline fishing pulled up a small freshly dead leatherback turtle about 5.6 kilometers south of Swains Island (Grant, 1994). This was the first leatherback turtle seen by the vessel's captain in 32 years of fishing in American Samoa. The nearest known leatherback nesting area to the Samoan Archipelago is the Solomon Islands. The American Samoa troll fishery has no reported interactions with leatherback sea turtles.

Olive Ridley Sea Turtle

Olive ridley turtles are uncommon in American Samoa, although there have been at least three sightings. A necropsy of one dead olive ridley turtle recovered from the waters around American Samoa found that it was injured by a shark, and may have recently laid eggs, indicating that there may be a nesting beach in American Samoa (Tagarino et al., 2008).

Loggerhead Sea Turtle

Loggerheads that occur in the Pacific are listed as the South Pacific Endangered Distinct Population Segment (76 FR 58868; Sept. 22, 2011). Loggerheads are circumglobal, inhabiting continental shelves, bays, estuaries and lagoons in the temperate, subtropical, and tropical waters of the Atlantic, Pacific and Indian oceans (Dodd, 1990). Loggerheads are circumglobal, inhabiting continental shelves, bays, estuaries and lagoons in the temperate, subtropical, and tropical waters of the Atlantic, Pacific and Indian Oceans (Dodd, 1990). This species in very rare in American Samoa. The South Pacific Ocean DPS nests on beaches in eastern Australia and beaches in southern New Caledonia, Vanuatu, and Tokelau (Limpus and Limpus, 2003a; Limpus, 2009). Although there has been some increased nesting in Australia, the species continues to face threats to survival

[30] From an article by Tina Mata' afa in the Samoa News. October 2007.

and recovery. In 2006, there were two interactions observed between endangered loggerhead turtles and American Samoa-based longline fishing gear, confirming the species' presence in the area.

Marine Mammals

The following marine mammals are protected under the MMPA, and may occur in the area of Rose Atoll:

Blue whale (*Balaenoptera musculus*)
Fin whale (Balaenoptera physalus)
Humpback whale (*Megaptera novaeangliae*)
Sei whale (*Balaenoptera borealis*)
Sperm whale (*Physeter macrocephalus*)
Blainville's beaked whale (*Mesoplodon densirostris*)
Bottlenose dolphin (*Tursiops truncatus*)
Bryde's whale (*Balaenoptera edeni*)
Common dolphin (*Delphinus delphis*)
Cuvier's beaked whale (*Ziphius cavirostris*)
Dwarf sperm whale (*Kogia simus*)
False killer whale (*Pseudorca crassidens*)
Fraser's dolphin (*Lagenodelphis hosei*)
Killer whale (*Orcinus orca*)
Melon-headed whale (*Peponocephala electra*)
Minke whale (*Balaenoptera acutorostrata*)
Pygmy killer whale (*Feresa attenuata*)
Pygmy sperm whale (*Kogia breviceps*)
Risso's dolphin (*Grampus griseus*)
Rough-toothed dolphin (*Steno bredanensis*)
Short-finned pilot whale (*Globicephala macrorhynchus*)
Spinner dolphin (*Stenella longirostris*)
Spotted dolphin (*S. attenuata*)
Striped dolphin (*S. coeruleoalba*)

Southern Pacific Humpback whales have been observed around Fagatele Bay National Marine Sanctuary between June and September. Sperm whales are occasionally seen in the Sanctuary and around Tutuila as well. Several species of dolphins also frequent the sanctuary waters. In addition, there have been occasional observations of both false killer whales and short-finned pilot whales occasionally stealing bait and fish from American Samoa-based longline gear. There are no pinnepeds (i.e., seals and sea lions) known to occur in American Samoa.

Seabirds

Table 7 lists seabirds likely to be found at Rose Atoll. Twelve species of migratory seabirds reside on Rose Atoll. The bristle-thighed curlew is a migratory species listed by the IUCN Red List Category as "Vulnerable" because of a small, declining population (estimated to be 7,000 birds worldwide). The primary threat is predation occurring on

wintering grounds (BirdLife International, 2009). This migratory shorebird resides on Rose Atoll in American Samoa. In addition, the Newell's shearwater is listed as threatened under the ESA and regarded as a visitor to American Samoa. Three other seabirds were determined to be endangered under the ESA in 2009 that occur in the South Pacific, including the Chatham petrel (*Pterodroma axillaris*), Fiji petrel (*Pseudobulweria macgillivrayi*), and the magenta petrel (*Pterodroma magentae*) (74 FR 46914; Sep. 14, 2009).

Table 7. Seabirds present around Rose Atoll.

| Common Name | Scientific Name |
|---|---|
| **Resident Seabirds** (Breeding birds) | |
| Black noddy | *Anous minutus* |
| Brown noddy | *Anous stolidus* |
| Lesser frigatebird | *Fregata ariel* |
| Great frigatebird | *Fregata minor* |
| White tern (Common fairy-tern) | *Gygis alba* |
| Grey-backed tern | *Onychoprion lunatus* |
| Black naped tern | *Sterna sumatrana* |
| White-tailed tropicbird | *Phaethon lepturus* |
| Red-tailed tropicbird | *Phaethon rubricauda* |
| Blue-gray noddy | *Procelsterna cerulea* |
| Tahiti petrel | *Pseudobulweria rostrata* |
| Collared petrel | *Pterodroma brevipes* |
| Bulwer's petrel | *Bulweria bulwerii* |
| Herald petrel | *Pterodroma heraldica* |
| Audubon's shearwater | *Puffinus lherminieri* |
| Christmas shearwater | *Puffinus nativitatis* |
| Wedge-tailed shearwaters | *Puffinus pacificus* |
| Sooty tern | *Sterna fuscata* |
| Masked booby | *Sula dactylatra* |
| Brown booby | *Sula leucogaster* |
| Red-footed booby | *Sula sula* |
| Pacific Reef Heron | *Egretta sacra* |
| **Visitors and Vagrants** | |
| White-bellied storm petrel | *Fregetta grallaria* |
| Laughing gull | *Larus atricilla* |
| Polynesian storm petrel | *Nesofregetta fuliginosa* |
| Phoenix petrel | *Pterodroma alba* |
| Mottled petrel | *Pterodroma inexpectata* |
| Short-tailed shearwater | *Puffinus tenuirostris* |
| **Forest Bird** | |
| Long-tailed Cuckoo | *Eudynamys taitensis* |
| **Shorebirds and Wading Birds** | |
| Wandering Tattler | *Tringa incana* |
| Pacific golden plover | *Pluvialis fulva* |

| Common Name | Scientific Name |
|---|---|
| Bristle-thighed curlew | |
| Sanderling | *Calidris alba* |
| Ruddy turnstone | *Arenaria interpres* |
| Pacific reef heron | *Egretta sacra* |

Sources: http://www.fws.gov/roseatollmarinemonument/RAMNM%20brief.pdf, http://www.botany.hawaii.edu/basch/uhnpscesu/htms/NPSAbird/common_name.htm USFWS, 2011b.

### 3.3.6 Essential Fish Habitat and Habitat Areas of Particular Concern

Essential fish habitat (EFH) and habitat areas of particular concern (HAPC) are designated in various portions of Rose Atoll. EFH areas are listed in Table 13 in Section 5. Affected EFH in Rose Atoll includes: Bottomfish EFH including the water column and habitat down to 400 meters; Coral reef ecosystem EFH which includes the water column and benthic substrate to a depth of 100 meters; Crustaceans EFH which includes bottom habitat from the shoreline to a depth of 100 meters, and Pelagics EFH which includes the water column down to 1,000 meters. These EFH designations include EFH for all life stages. HAPC has been determined to be all coral reefs in the PRIA and the water column above seamounts and banks down to 1,000 meters. At present, no fishery under the Council's jurisdiction has been found to adversely affect the EFH or HAPC of any MUS (WPFMC, 2007).

# 4 Potential Impacts of the Alternatives

The potential impacts of the alternatives are summarized in Table 11 at the end of this section.

The alternatives discussed here for the Islands Unit of the Marianas Trench Marine National Monument; the Pacific Remote Islands (PRI) Marine National Monument; and the Rose Atoll Marine National Monument are:

Alternative 1: No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments.

Alternative 2: Amend the FEPs and promulgate regulations to codify the Monument boundaries and the prohibition on commercial fishing, but do not implement the Council action for management of non-commercial fishing.

Alternative 3: Amend the FEPs and promulgate regulations to codify the Monument boundaries and the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing (Preferred Alternative).

More detailed descriptions of the potential environmental impacts follow:

## 4.1 Potential Impacts in the Mariana Archipelago

Proclamation 8335 prohibited commercial fishing in the Islands Unit and the proposed management of non-commercial fishery activity in the Islands Unit by NMFS and the Council would not affect fishing in the Volcanic or Trench Units of the Marianas Trench Monument. Under all alternatives, sustainable commercial fishing for pelagic management unit species (MUS) and bottomfish around Volcanic Units in areas close to populated areas in the Mariana Islands and Guam would continue. Regardless of the alternative selected all crustacean, bottomfish, and coral reef management unit species catches in all Monument areas will continue to be subject to Annual Catch Limits and post-season harvest reviews as specified in the Mariana Archipelago FEP. Pelagic catches are subject to management measures agreed to under international organizations, and continue to be monitored by CNMI fishery managers, NMFS, and the Council.

### 4.1.1 Likely level, type and area of fishing

Alternative 1. Under the No-action Alternative, because of the remote distance from populated islands, only a limited amount of non-commercial fishing is expected to be occurring in the Islands Unit. If non-commercial fishing is occurring, it is likely to be non-commercial troll fishing using pole and line; bottomfish fishing using pole and line; harvest of lobsters by hand; and spearfishing and pole and line fishing from shore or boat for coral reef ecosystem MUS. While information is not currently available on what trips are occurring, based on recent accounts of historical fishing activity (Kotowicz, 2012), an average of around 4 trips per year is likely to occur.

Under the No-action Alternative, commercial fishing in the Islands Unit is prohibited under the Proclamation. Commercial fishing may occur in waters outside of the Islands Unit, on the same trip as a non-commercial fishing trip in the Monument. Fish caught outside the Islands Unit can be sold. It is expected that more trolling would occur outside the Islands Unit on the return trip, than would occur inside the Islands Unit because the pelagic fish would be fresher upon return.

Alternative 2. Under this alternative, regulations would prohibit commercial fishing in the Islands Unit. The same amount of low level non-commercial fishing as is currently occurring (estimated 4 trips annually) would likely occur under this alternative. As with Alternative 1, fish caught outside the Islands Unit on the same trip as a non-commercial fishing trip to the Islands Unit could be sold. It is expected that more trolling would occur outside the Islands Unit on the return trip, than would occur inside the Islands Unit because the pelagic fish would be fresher upon return.

Alternative 3. Under the preferred alternative, regulations would prohibit commercial fishing in the Islands Unit and permits and logbooks would be required. A low level of permitted non-commercial fishing would likely occur using the same gears as are currently being used. Unlike Alternatives 1 and 2, fish caught outside the Islands Unit on the same trip as a non-commercial fishing trip in the Islands Unit may not be sold. The prohibition on mixing a non-commercial and commercial trip could be expected to reduce interest in a fishing permit. Customary exchange would be allowed and would potentially result in some fishing activity that would otherwise be prohibited under Alternatives 1 and 2. Customary exchange would help fishermen to partially recoup trip costs and would allow for the continuation of culturally important traditions of sharing fish caught in the Islands Unit. Under this alternative, trolling for pelagics fish would still likely occur inside and outside the Islands Unit; with some fish caught on the return trip, to be used in customary exchange.

For this impact analysis, under the preferred alternative, permit and reporting would be required and could capture information about fishing trips that may not be accounted for under the No-Action Alternative. Additionally, the regulations would remove ambiguity about fishing in the Islands Unit, so some fishermen may be more interested in venturing to the Islands Unit, so there could be additional trips occurring that might not occur under the No-action Alternative. For this reason, the impact analysis expands the historical level of fishing from approximately 4 trips per year to approximately ten trips per year of either type of fishing: either non-commercial or charter for hire fishing in the Monument.

#### 4.1.2 Potential Impacts to Target and Non-Target Stocks in the Islands Unit

<u>Alternative 1. No-Action:</u>

Commercial fishing would continue to be prohibited in the Islands Unit, pursuant to the Proclamation. Under the No-action Alternative, there would be no specific management of non-commercial fishing in the Islands Unit which could result in some level of non-commercial fishing in the Islands Unit.

All marine harvests must comply with Marianas FEP and Pelagic FEP regulations.

Troll, bottomfish, hand harvest, pole and line, and spearfishing are fairly target specific and minimize bycatch of non-target species. Undersized or unwanted fish are often released alive.

Reported harvests of bottomfish, crustaceans, coral reef ecosystem species, and precious corals are subject to annual catch limits (ACLs) and a post season review of fishing to determine whether catch limits have been exceeded, and whether management adjustments are needed. Due to the low level of likely fishing in the Islands Unit, and the fact that fishing in the Islands Unit likely involves a displacement of current fishing elsewhere in the Mariana Islands, the impacts to pelagic, bottomfish, crustacean and coral reef ecosystem target and non-target stocks from CNMI fisheries are likely to be limited and sustainable.

The amount of fish that is caught in the Islands Unit through low leveled of fishing at approximately four trips per year is not known.

Alternative 2. The codification of the prohibition on commercial fishing in the Islands Unit and of the Monument boundaries would not change fishing in the Islands Unit. As no new management measures are proposed for the Islands Unit, the impacts would be the same as under the No-action Alternative.

Alternative 3. Under Alternative 3, a limited number of non-commercial fishing trips are expected to occur in the Islands Unit and there would be relatively small harvests each year. Harvests of bottomfishes, crustaceans, and coral reef ecosystem species from the Islands Unit would be reported on logsheets and count toward the annual catch limits for each MUS.

With permit and reporting requirements, NMFS estimates that up to 10 vessels total would fish in the Islands Unit annually; and this is considered a high estimate because of the generally low historical average of trips (approximately 4 per year) which is likely due to the distance from populated areas and the costs of trips. The prohibition on fishing commercially outside the Islands Unit on the same trip as a non-commercial fishing trip to the Islands Unit may discourage some fishermen from seeking a non-commercial fishing permit.

The following fishing is expected to occur in the Monument Islands Unit under non-commercial permits:

A low level of non-commercial troll fishing, using hooks and line, near the surface to catch pelagic fishes. We conservatively estimate the number of trips to be up to ten per year; although the actual number is likely to be lower than this because of the distances involved, the prohibition on commercial fishing, and the prohibition of conducting commercial fishing outside the Islands Unit and non-commercial fishing inside the Islands Unit on the same trip.

A low level of non-commercial bottomfish fishing using hooks and line gear. Bottomfish fishing would include either shallow-water bottomfish fishing (fishing at depths shallower than 500 feet or deep-water bottomfish fishing (fishing at depths greater than 500 feet).

A low level of fishing for spiny lobsters could occur using hand harvests in nearshore waters. This type of lobster does not readily enter traps, so harvesting lobsters is labor intensive and landings are expected to be small relative to the available biomass.

A low level of coral reef ecosystem fishing using spears or pole and line gear cast from shore would target coral reef fishes.

<u>Impacts of each type of fishing on target/non-target and bycatch species:</u>

Troll fishing:

NMFS estimates up to 10 non-commercial fishing trips to the Islands Unit based on three 12-hour fishing days per trip. For pelagic fishing, NMFS estimates that vessels would spend the entire 3 days in the Islands Unit troll fishing. This may be an over-estimate because some vessels would spend fewer days catching fish in the Islands Unit, and many of the vessels would likely participate in other types of fishing while in the Islands Unit.

The fish that are most likely to be caught by trollers include mahimahi (*Coryphaena hippurus*), wahoo (*Acaonthocybium solandri*), skipjack tuna (*Katsuwonus pelamis*), yellowfin tuna (*Thunnus albacores*), and Pacific blue marlin (*Makaira mazara*). Small amounts of bigeye tuna could be caught, but this is unlikely with troll gear.

Estimated catch and impact to target / non target stocks:

CPUE for trollers in the CNMI were used to estimate overall harvests in the Islands Unit. Assuming 10 annual trips, fishing for 3 days per trip, at 12 hours/day, this would result in approximately 36 hours fishing for pelagic MUS per trip or 360 fishing hours annually. Based on the Councils 2010 Pelagic Fisheries Annual Report (WPFMC, 2012), the CPUE of the CNMI pelagic troll fishery is 25 lb of pelagic MUS per hour. Based on this estimate, approximately 9,000 lb of pelagic MUS could be harvested from the Islands Unit annually. This is less than 2% of the total pelagic MUS caught by CNMI troll fishery which landed 531,384 lb of pelagic MUS in 2010 (WPFMC, 2012).

Harvests of pelagic fish MUS would be at such low levels that overall impacts on pelagic stocks would be negligible.

Bigeye tuna are not expected to be caught by trollers, and a low level of catch of BET would not have an effect on the amount of BET that could be sustainably harvested by fishermen from the CNMI or Guam.

Bottomfish:

Bottomfish fishermen target shallow (100-500 ft) bottomfish such as the redgill emperor and deepwater (>500 feet) bottomfish species such as snappers and groupers.

To evaluate the potential bottomfish harvest by non-commercial fishers in the Islands Unit, it is estimated that at most, there would be 10 vessel trips of 3 days duration, for a total fishing effort of 30 bottomfish fishing days in the Islands Unit a year. Using recent CNMI bottomfish catches of 50 lb/day based on the average catch rate in the past 5 years around the CNMI (WPRFMC, 2012a), this level of effort could result in 1,500 lb/year of bottomfish.

Therefore, the total estimated annual catch of bottomfish in the Islands Unit is expected to be sustainable. Catch logbooks would be required for non-commercial fishing in the Islands Unit, allowing fishery managers to monitor catches.

The Annual Catch Limit for the bottomfish stock complex in the CNMI is currently set at 182,500 lb (77 FR 6019; February 7, 2012). The average recent commercial bottomfish catch is 17,419 lb (WPFMC and NMFS, 2011a). It can be seen that a very low level of non-commercial fishing for bottomfish is not likely to accelerate the CNMI bottomfish catch with respect to attaining the ACL, and would be sustainable, even when considered together with commercial catches throughout the CNMI. Based on the eligibility requirements for non-commercial fishing permits under the preferred alternative, NMFS anticipates there would be few if any new entrants into the fishery, and that fishing effort would simply be redirected from other areas in the Mariana Islands Archipelago. Accordingly, fishing under the preferred alternative would be sustainable, even when considered together with commercial catches throughout the CNMI.

Crustaceans:

There has been no reported fishery for deep-water shrimp in the CNMI since 2006, and there is not likely to be non-commercial deepwater shrimp fishing in the Islands Unit because of the short shelf-life of shrimp. However, if any non-commercial deepwater shrimp fishing were to occur, it is unlikely that the fishery would attain the specified annual catch limit of 275,570 lb (77 FR 65019; February 7, 2012). Potential harvests of lobsters are described below.

Coral Reef Ecosystem Fishing:

CNMI coral reef fisheries occur year-round in the southern islands. However, coral reef fishing in the Islands Unit is expected to be limited to those months when fair weather is expected. According to species catch composition from the Western Pacific Fisheries Information Network (WPacFIN), the most common species harvested in CNMI coral reef fisheries include emperors, jacks, surgeonfish, bigeye scad, groupers, snappers, goatfish, parrotfish, mollusks including octopus, mullets and rabbitfish.

Non-commercial fishing for coral reef ecosystem species in the Islands Unit would be in the shallow waters using spear or pole and line, or hand harvest for seaweeds. Estimates of the potential harvests of CRE MUS in the Islands Unit are based on CRE MUS harvests in the CNMI (particularly the island of Saipan). Catch rate data for the boat-based spear fishing (using snorkel only, as SCUBA assisted spearfishing is prohibited in the CNMI) from WPacFIN estimated a maximum CPUE (for the entire time series) to be at 3.6 lbs per hour. Projection of the potential annual non-commercial catch based on this catch rate was estimated to be 864 lb/ year. Also, assuming species catch composition in the Islands Unit would be similar to species catch composition in the broader CNMI, an annual catch of 864 lb is expected to include several CREMUS family groups mentioned above and is not likely to accelerate attainment of any ACL even when considered together with commercial catches throughout the broader CNMI. It is believed that this potential low level of CRE MUS harvests would be sustainable. Catch logbooks would be required for non-commercial fishing in the Islands Unit, allowing fishery managers to monitor catches.

The ACL for the spiny lobster and slipper lobster in the CNMI is currently set at 5,500 lb and 60 lb, respectively (77 FR 6019, February 7, 2012) and harvests of lobsters in the Islands Unit would be counted towards the ACL. The harvest is expected to be very low because hand harvest is very labor intensive. The very small amount of lobsters that would be caught by up to 10 non-commercial fishing trips a year, would be a fraction of the ACL, and is not likely to accelerate attainment of any ACL even when considered together with commercial catches throughout the broader CNMI.

#### 4.1.3 Potential Impacts to Protected Species in the Island Unit

Alternative 1. Under the No-action Alternative, there would be no commercial fishing in the Islands Unit, in accordance with the Proclamation, but there could be a low level of non-commercial fishing in the Islands Unit. There are no reports of interactions between seabirds and commercial and non-commercial troll, bottomfish, crustacean or coral reef fisheries around the CNMI and Guam, and there would be no change to the gear used, the areas fished, or other requirements that affect fishing in the Mariana Islands. Due to the type of fishing gears and methods used (hook-and-line and spear fishing, hand harvest), and low level of fishing in the Monument, interactions between protected species and non-commercial fishing activities are expected to rarely occur, if at all

The commercial and non-commercial fisheries around the CNMI are operating in accordance with Biological Opinions (BiOps) consistent with the Endangered Species Act and that apply to the existing troll, bottomfish, coral reef, and crustacean fisheries (see more detailed description of the findings of the BiOps below, in Alternative 3). There would be no change to the existing low level of fishing in the Monuments under the No-action Alternative, and interactions with protected species are expected to remain very low.

Alternative 2. Codification of the prohibition on commercial fishing and the boundaries of the Monument would not change the amount, type, or location of non-commercial

fishing in the Islands Unit. The impacts would be the same as under the No-action Alternative. As with the No-action Alternative, the fisheries of the western Pacific, including non-commercial fishing in the Islands Unit, would continue to operate in accordance with existing Biological Opinions whose conclusions are described for Alternative 3, below.

Alternative 3. Under the preferred alternative, a small number of non-commercial fishing trips are expected to be taken to the Islands Unit each year and engage in non-commercial fishing. The number of trips is not expected to be large because of the distance the Islands Unit is from populated areas, the high cost of the trip, and the prohibition on sales of fish or other MUS. At a maximum, up to 10 trips a year, each trip lasting approximately 3 days in the Islands Unit is estimated to occur. Fishery participants would be required to report any interaction with protected species in their fishery logbooks.

No critical habitat has been designated in the Islands Unit therefore none would be affected. Troll, scuba, spear, hand harvest, shorecasting, and bottomfish fishing are not likely to result in interactions with seabirds.

Potential non-commercial fishing impacts on protected species/ Islands Unit:

Fishing that occurs during trips to and from and within the Islands Unit has the potential to interact with listed sea turtles and marine mammals listed in Section 3. They include threatened green turtles, endangered loggerheads from the North Pacific Distinct Population Segment, endangered hawksbill and leatherback turtles, and threatened olive ridley sea turtles. Endangered marine mammals in the region include blue, humpback, sei, and sperm whales.

The impacts of western Pacific troll fishing on listed species were considered by NMFS in 2009, and are documented in the "Biological Opinion for the Continued Authorization of Troll and Handline Fisheries of the Western Pacific Region" (NMFS, 2009). The analysis considered biological and/or ecological information for blue, fin, humpback, North Pacific right, sei and sperm whales; and hawksbill leatherback, loggerhead, and olive ridley turtles. The most likely stressors and impacts were 1) collisions with fishing vessels; 2) hooking or entanglement in fishing gear; 3) disturbance from human activity and equipment operations; 4) exposure to vessel wastes; 5) direct and indirect competition for forage; or 6) exposure to marine mammal deterrents. The findings of the BiOp are summarized here.

Potential impacts of vessels on listed sea turtles and marine mammals:

No collisions with protected species have been reported for any troll or handline fleet of the western Pacific region, but the potential for collisions exist. Collisions are most likely in nearshore waters where densities of ESA-listed marine species and vessel traffic (around the populated islands) are highest. The BiOp describes the extremely low likelihood of hawksbill vessels strikes, and concluded that, based on a total 39,157 troll and handline trips throughout the western Pacific region (e.g., Hawaii, American Samoa,

the Marianas and the PRIA), it is discountable that hawksbill turtles will be stuck by vessels. The preferred alternative would not change the number of vessel trips that are made in populated areas (the location from which trips would originate), and the limited number of trips that would be made to the Islands Unit is a fraction of the level of activity that was evaluated for the CNMI commercial troll fishery in the 2009 BiOp for the troll and handline fisheries (7,491 commercial troll fishing trips annually). The estimated 10 trips to the Island Unit a year, maximum, are not expected to result in interactions with endangered sea turtles because sea turtle densities are not expected to be high, vessel operators would make every effort to avoid collisions and sea turtles are likely to be able to avoid vessels.

The 2009 BiOp on the western Pacific troll fisheries concluded that due to the low densities of leatherback, loggerhead, and olive ridley sea turtles, and blue, fin, humpback, North Pacific right, sei and sperm whales, and the low density of troll vessels fishing in open waters, that collisions with these species would be even lower than that described for hawksbill sea turtles, so there is no large expected impact from troll fishing vessels in the EEZ around the CNMI and Guam on these species. The low level of fishing in the Islands Unit that would occur under non-commercial permits, would not add to the low likelihood of collisions with any of these protected species as it is a displacement of effort that was already considered.

The 2009 BiOp considered the potential for green sea turtle mortality associated with vessel collisions around the western Pacific including around the Mariana Islands. Based on 7,494 commercial troll fishing trips in the Mariana Islands, 129 commercial troll fishing trips annually in American Samoa, and no commercial fishing trips in the PRIA, a maximum of four green turtle mortalities annually from all troll fishing in American Samoa, the Mariana Islands and the PRI were expected. For the analysis, it was assumed that three of the sea turtles in likely would come from the central Pacific population and one from the western Pacific population. The analysis found that the continued authorization of the western Pacific troll fishery was not expected to result in an expansion of the troll fishery, so the impact of this level of mortalities to both affected populations would be negligible. The 2009 BiOp found that western Pacific troll fisheries were not likely to jeopardize the continued existence of green sea turtles, nor are they likely to adversely affect blue, fin, humpback, North Pacific right, sei or sperm whales, or hawksbill, leatherback, loggerhead, or olive ridley sea turtles.

Troll vessels are not known to have impacts on other marine mammals. Marine mammals such as dolphins and whales are generally able to move away from troll vessels to avoid being struck; and vessel operators would also try to avoid colliding with sea turtles and marine mammals. For these reasons, and because of the very low amount of vessel activity anticipated to and in the Islands Unit, vessel collisions with marine mammals are considered unlikely.

Another potential impact of fishing vessels is disturbance to protected species. The most likely effect on turtles, or listed marine mammals from a vessel encounter would be infrequent, low to moderate level stress, with a moderate to high energy –requiring

avoidance behavior culminating in an animal moving away on its own without an injury or reduction in fitness. Thus, this type of interaction is expected to have insignificant effects on listed species.

Exposure to vessel wastes: Local and Federal regulations prohibit intentional discharge, and the small size of the vessels involved is expected limit the size of potential discharges. Therefore, potential spills and discharges are expected to be infrequent, small, and quickly diluted or dispersed if they do occur. Because of this, NMFS found that exposure to vessel wastes and discharges that may result from this action will result in insignificant effects on listed marine species.

In addition to vessel impacts, the four types of fishing that could occur under the permits and their potential impacts on listed species are as follows:

(1) Troll fishing

The low density of vessels, the limited number of fishing trips, and limited duration of each fishing trip are all factors that reduce the likelihood that there would be interactions between vessels and seabirds, marine mammals or sea turtles. The impacts of troll fishing on sea turtles and marine mammals include the possibility of hooking or entanglement in fishing gear. In its 2009 BiOp, NMFS evaluated the likelihood of troll fisheries hooking or entangling sea turtles and listed marine mammals and found that it is highly unlikely that either would be able to bite trolled lures or baits. Lures and bait are pulled through water faster than sea turtles can swim, and do not represent potential prey for sea turtles or marine mammals. There is a small potential that sea turtles or marine mammals could be snagged by troll hooks, and then entangled in line. However, interactions with the troll fishery in populated areas are very rare, and expected to continue to be rare. The small size of hooks used, the external nature of potential hookings, and the likelihood of removing all gear from turtles and the fact that any trailing line would be short and of relatively light-test. In the case of whales, hooking would likely be external and the relatively small hooks and light test line could lead to trailing line until the hook rusts or falls out. The 2009 BiOp found that the effects of all of these unlikely interactions would not result in insignificant injuries and would not reduce the fitness of an animal that might be hooked during troll fishing.

The impacts of troll fishing in terms of direct and indirect competition for forage were considered in the 2009 Troll and Handline BiOp. It found that while sperm whales prey directly on the target and bycatch of the fishery, they typically prey on large deepwater squid and other deep water species near the bottom in deep water; whereas the troll fishery target and bycatch species inhabit relatively shallow near-surface waters. The small amount of pelagic fish biomass that is removed by western Pacific troll and handline fisheries was considered insignificant in terms of its impact on the demersal trophic web. With the low level of troll fishing that is expected to occur in the Islands unit, the impact on the trophic web and from competition with other species that eat pelagic fishes is still within the levels that were already considered and is not likely to have an adverse effect on other species.

(2) Coral reef ecosystem fishing

The low level of fishing using spears, diving, or pole and line fishing from shore is not expected to result in interactions with seabirds, marine mammals, or sea turtles. Impacts of the continuation of the Northern Mariana Islands and Guam's commercial coral reef fisheries were considered in an informal consultation that concluded on June 3, 2008. The action area for the consultation was the EEZ around the CNMI and Guam. The consultation confirmed that the coral reef fishery would only likely interact with green and hawksbill sea turtles and humpback whales. The analysis included potential stressors including disturbance from human activity and equipment operation, hooking or entanglement in fishing gear, collision with fishing vessels, and exposure to vessel wastes. Disturbance from human activities was found to have an insignificant effect on listed marine species because the impacts would be infrequent, low to moderate level stress, with a moderate to high energy avoidance behavior culminating with the animal rapidly leaving the area on its own without injury. Hooking and entanglement were expected to have insignificant effects on sea turtles and marine mammals due to very low likelihood of interactions with coral reef fishing gear. The potential for collisions between protected species and fishing vessels was considered discountable because the density of sea turtles and humpbacks whales is low. The small scale and seasonality of the coral reef fisheries around Guam and the CNMI were expected to keep vessel sea days low and vessel operators actively watch for and avoid objects in the water. Exposure to vessels wastes was found to have insignificant effects on ESA listed marine species because potential spills and discharges are expected to be infrequent, small and quickly diluted or dispersed. Local and Federal regulations prohibit the intentional discharge of wastes, and the small size of most vessels is expected to limit the size of potential spills and discharges. The small scale and seasonality of the fisheries are expected to keep the number of vessel days low and limit the opportunity for discharges.

In summary CNMI coral reef fishing was found not likely to adversely affect ESA listed marine species. These findings would likely be similar for coral reef fishing under the preferred alternative to permit a low level of non-commercial bottomfish fishing in the Islands Unit.

(3) Bottomfish fishing

Impacts of the continuation of the Northern Mariana Islands and Guam's commercial bottomfish fisheries were considered in an informal consultation that concluded on June 3, 2008. The action area for the consultation was the EEZ around the CNMI and Guam. The consultation confirmed that the bottomfish fishery would only likely interact with green and hawksbill sea turtles and humpback whales. The analysis included potential stressors including disturbance from human activity and equipment operation, hooking or entanglement in fishing gear, collision with fishing vessels, and exposure to vessel wastes. Disturbance from human activities was found to have an insignificant effect on listed marine species because the impacts would be infrequent, low to moderate level stress, with a moderate to high energy avoidance behavior culminating with the animal

rapidly leaving the area on its own without injury. Hooking and entanglement were expected to have insignificant effects on sea turtles and marine mammals due to very low likelihood of interactions with bottomfish fishing gear. The potential for collisions between protected species and fishing vessels was considered discountable because the density of sea turtles and humpbacks whales is low. The small scale and seasonality of the coral reef and bottomfish fisheries were expected to keep vessel sea days low and vessel operators actively watch for and avoid objects in the water. Exposure to vessels wastes was found to have insignificant effects on ESA listed marine species because potential spills and discharges are expected to be infrequent, small and quickly diluted or dispersed. Local and Federal regulations prohibit the intentional discharge of wastes, and the small size of most vessels is expected to limit the size of potential spills and discharges. The small scale and seasonality of the fisheries are expected to keep the number of vessel days low and limit the opportunity for discharges.

In summary bottomfish fishing was found not likely to adversely affect ESA listed marine species. These findings would likely be similar for the preferred alternative to permit a low level of non-commercial bottomfish fishing in the Islands Unit.

Bottomfish fishing has the potential to interact with dolphins which have been reported to steal bait off of hooks. This is a rare occurrence, and the limited amount of bottomfishing in the Islands Unit, together with the requirement to report interactions with protected resources, would reduce the likelihood of interactions with marine mammals and would allow the Council and NMFS to implement changes to the activity, if necessary.

(4) Spiny lobster fishing

The CNMI crustacean fishery is small with reported landings of less than 1,000 lb in 2009 (NMFS, 2011). The fishery primarily targets spiny lobster in shallow waters. Harvest is done by hand. Within the Islands Unit, a limited amount of lobsters is likely to be caught by hand. The impacts of the CNMI lobster fishery in CNMI on listed species were evaluated in 2007, through an informal Section 7 consultation. It was found that the lobster fishery's proximity to shore limits interactions with pelagic species such as whales and leatherback turtles. Green and hawksbill turtles could be disturbed through behavioral disturbances, collision injuries and exposure to shipboard wastes and toxins. The consultation, dated September 28, 2007, found that the CNMI lobster fishery is only likely to affect green and hawksbill sea turtles within the normal foraging and resting habitats for both species. The small scale of the lobster fisheries, the short duration of lobster trips are expected to limit the effects of disturbance on sea turtles and those impacts were found to be insignificant. For the same reasons, lobster fishing was not expected to result in sea turtle collisions. Federal regulations prohibiting discharge of toxic wastes and plastics, and together with the small scale of the fishery, would limit the size of potential spills and discharges. The number of vessel sea days in the fishery is low and would limit the opportunity for discharges. The consultation concluded with a determination that the CNMI crustacean fishery is not likely to adversely affect ESA-listed marine species or their habitats.

The preferred alternative is likely to result in a very low number of days at sea in the Islands Unit and limited lobster harvest because of the remote location of the Islands Unit, and the likely preference to fish for different species during an Islands Unit trip. It is unlikely that divers hand harvesting lobsters would interact with protected species.

Lobster fishing in the Islands Unit is not likely to have a large effect on marine mammals because marine mammals are expected to avoid in-water encounters with divers by leaving the vicinity.

#### 4.1.4 Potential Impacts to Fishery Participants and Fishing Communities in the Islands Unit

Alternative 1. Recent research suggests that trips to the Islands Unit of the Monument are rare (Kotowicz, 2012). Motivations for such trips tended to be mixed and may include transporting goods, communicating with northern island residents, and the opportunity to visit a remote area. Almost all trips, however, included some fishing. This was because of the uniqueness of the area, the fact that use was low, and there was the ability for voyagers to catch good sizes and a diversity of fish.

The distance to the area means that travel time, fuel costs, and boat size are factors that are likely to constrain fishing in the Islands Unit. In fact, as of this writing only two existing vessels from Saipan are thought to have a documented record of undertaking trips – though three additional vessels are candidates for making trips to the Islands Unit, if certain repairs are made to each vessel.

Under the No-action Alternative, residents of Guam and the CNMI are able to undertake non-commercial fishing in the Islands Unit; and likely do, on a low level, as in the past. Under this alternative, people who fish non-commercially in the Monument could sell fish that are harvested outside of the Monument. Sharing of fish caught in the Monument could occur as well.

Alternative 2. Codifying the prohibition on commercial fishing and the boundaries of the Monument would not change the type of fishing, location, or area; therefore, the same level of fishing would occur under this alternative as the No-action Alternative. People fishing in the Islands Unit could sell fish caught outside the Islands Unit, so sales as well as exchanges of fish could continue.

Alternative 3. Under the preferred alternative, because of the distance from populated areas, and based on the limited number of recent trips to the remote islands of the Islands Unit, the number of trips to the Islands unit for fishing is expected to continue to be very low and is estimated to be approximately 4 trips a year. At a maximum, and expanded for the purposes of this analysis, the number of trips could be up to 10 trips by either non-commercial permit holders or by fishermen in charter-for hire vessels.

Although sales of fish caught inside or outside of the Islands Unit could not be made, exchanges of fish could continue to occur except for fish caught during a charter fishing

trip. Customary exchange, as defined under this alternative, could include cash reimbursements to help pay for the cost of the trip. Trip costs were evaluated for non-commercial fishing in Islands Unit, and based on distances between trip origination and the Islands Unit, length of fishing trip, current fuel costs, bait cost, and food for crew (Table 8).

Possible trip cost reimbursement for Islands Unit of the Monument:

- 5-day trip originating from Saipan and traveling to Asuncion = $ 5,350
- 7-day trip originating from Saipan and traveling to Uracus = $ 6,400

Table 8. Estimated trip cost for a 65 ft fishing vessel from Saipan to Islands Unit of the Marianas Trench Monument

| Vessel Size | Distance (One way in nm) | Length of trip | Gallons of fuel | Price per gallon | Total fuel cost | Ice costs | Bait costs | Food costs (3 person crew) | Total trip costs |
|---|---|---|---|---|---|---|---|---|---|
| 65ft | 260 nm (distance from Saipan to Asuncion) | 5 day | 750 | $5.00 | $3,750 | $700 | $400 | $500 | $5,350 |
| 65 ft | 315 nm (distance from Saipan to Uracas) | 7 days | 900 | $5.00 | $4,500 | $800 | $450 | $650 | $6,400 |

Source: WPFMC Options paper 7.A(1) 153rd Council meeting March 5-9, 2012 [31],[32],[33],

Many of the people interviewed by Kotowicz (2012) indicated that being able to fish in the northern islands remains important in the context of visiting islands they used to live on and bringing back fish from ancestral waters to share with friends and family in Saipan. The preferred alternative would allow the low level of fishing in the Islands Unit that historically occurred to continue, with permits and logbooks to help monitor fishing activities and harvests. Under the preferred alternative, commercial and non-commercial fishing in the Islands Unit could not occur on the same trip. Therefore, compared to the No-action Alternative, the preferred alternative could result in fewer trips being made, if customary exchange was not able to offset costs (because of the prohibition on

[31] The table above assumes fishing activity would involve pelagic trolling, bottomfishing, and/or fishing for coral reef species. 2)

[32] Price per gallon estimates were provided on February 7, 2012 by Jack Ogumoro, Council CNMI Island Coordinator.

[33] Fuel consumption estimates provided by Sean Martin, Council member, owner and manager of several longline vessels.

commercial fishing outside the Islands Unit on the same trip as a non-commercial Monument fishing trip), or if motivations were not strong enough to pay for a trip without being able to sell fish from the trip.

There are no known recreational charter cost analyses so similar costs are estimated for charter fishing operations; however, recreational charter fishermen would not be eligible for cost reimbursement through customary exchange. Under the preferred alternative, unless the fee is waived, there would be some costs to fishermen who wish to obtain a permit. Costs would cover the application fee and the cost of processing and submitting permits and logbooks (see Section 5.8). However, permits would be valid for one year, so within a year, participants would not need to reapply for a permit and incur the annual cost for a permit and submission of logbooks.

This alternative, which would allow a continuing low level of non-commercial fishing in the Islands Unit with permit and logbook requirements, would allow participants to benefit from the opportunity to travel to and fish in an area that is a historic fishing ground. It would also maintain social cohesion by allowing the practices associated with fishing in the Islands Unit, including the customary exchange of fish within the community, to continue.

#### 4.1.5 Potential Impacts on Marine Habitat and Biodiversity in the Islands Unit

Alternative 1. Under the No-action Alternative, commercial fishing would continue to be prohibited by Proclamation. Non-commercial fishing was not specifically managed and so the existing low level on non-commercial fishing is likely to continue to occur. Also, non-commercial fishing could be combined with commercial fishing outside of the Islands Unit. Under existing regulations in the Pelagics and the Mariana Islands FEPs, all fishermen that fish in the EEZ around Guam and the Marianas Islands, are allowed to use only specific selective, non-destructive types of fishing gear. When properly deployed, monitored, and retrieved, the Council has found that these types of fishing gears do not have adverse impacts to marine habitat, including essential fish habitat (EFH) and habitat areas of particular concern (HAPC).

Impacts to benthic habitat that may occur during normal fishing operations including anchor damage, loss of gear (leaders, hooks, and weights). Troll fishing does not require anchoring, and gear loss in troll fishing is rare. Anchor damage during bottomfish fishing in the Islands Unit would be unlikely due to the low number of bottomfish fishing trips, and the likelihood that anchoring would be beyond coral reef areas. Gear loss in bottomfishing is also very rare. Most of the trips to the Islands Unit are likely to require anchoring near shore around each island, but adverse impacts from anchors have not been detected on recent surveys around the Islands Unit, and the limited amount of anchoring around the islands would likely be in areas that have basalt and would not result in large impacts to coral reef habitats.

The low level of fishing and the use of target-specific gears in the Islands Unit is not expected to have an adverse effect on biodiversity of the Islands Unit.

Alternative 2. The codification of the prohibition on commercial fishing in the Islands Unit and the boundaries of the Monument would not change the type of fishing, gear used, or areas fished. Therefore, the impacts would be the same as under the No-action Alternative.

Alternative 3. The low level of fishing activity that is anticipated to occur if the preferred alternative is implemented would not result in any substantial increases in the potential for impacts to marine habitat or biodiversity. The very limited amount of catch from a maximum of 10 fishing trips to the Islands Unit is not expected to deplete stocks or compete with other organisms that target the same species; and therefore, this alternative would not have an adverse effect on biodiversity of the Islands Unit.

Permits and logbooks would allow monitoring of catch and effort in the Islands Unit, and would allow for changes to fishery management, if needed.

#### 4.1.6 Potential Impacts to Administration, Enforcement, and Compliance in the Islands Unit

Alternative 1. Under the No-action Alternative, commercial fishing is prohibited by the Proclamation. Historically, there was an average of approximately 4 trips each year to the islands now in the Islands Unit of the Monument. Enforcement of existing MSFCMA management regulations would continue. Under the No-action Alternative, applicable Mariana Islands FEP and Pelagics FEP permits would still be needed to fish in the EEZ around the Marianas. There would be no new costs for fishery management administration. Compliance with the prohibition on selling fish caught in the Islands Unit would be difficult when fish caught outside the Islands Unit can be sold.

Alternative 2. This alternative would improve enforcement of the prohibition on non-commercial fishing by allowing enforcement of the prohibition to occur in accordance with the MSFCMA. Compliance would be enhanced because the boundaries would be codified in the FEPs and the regulations.

There would be very limited administrative costs to the government for changing the regulations and to the Council to change the FEPs and to both for outreach and education.

There would be no new costs to fishermen under this alternative.

Alternative 3. Under the preferred alternative, the codification of the prohibition of commercial fishing prohibition and the Monument boundaries would enhance compliance and allow enforcement under the MSFCMA.

Non-commercial fishing in the Islands Unit would require a permit and logbooks. There would be some costs to permit applicants to obtain a permit (unless those costs are waived), and costs and time required to file logbooks. Not all people who are on a fishing trip would be required to have a fishing permit. Only the owner and operator of the vessel fishing in the Islands Unit would be required to have a permit.

The requirement for permits is expected to aid enforcement of fishing in the Islands Unit and the prohibition on commercial fishing on the same trip as a non-commercial fishing trip to the Islands Unit is expected to enhance the enforceability of the prohibition on commercial fishing in the Islands Unit.

The preferred alternative would result in very limited additional administrative costs to the government needed to change the regulations and to the Council to amend the FEPs. There would be administrative and supply costs to the government for the development of paper and digital application and permit forms, review of applications, including confirmation of permit qualifications; and for the acceptance and processing of logbooks. NMFS expects the level of interest in the permits to be very low due to the distance and costs associated with such trips. Section 5.7 includes more information about the potential administrative costs associated with the proposed noncommercial fishing permit and logbook management program.

#### 4.1.7 Potential Climate change impacts

Alternative 1. Although climate change is known to affect marine resources and ecosystems, impacts of climate change on marine resources, human communities and ecosystems at the regional level have not been quantified. The extremely low level of non-commercial fishing that may be occurring in the Islands Unit is not expected to have an appreciable effect on the intensity or rate of climate change, or increase the vulnerability of any resource, ecosystem, or human community to climate change.

Alternative 2. Codification of the commercial fishing prohibition and the Monument boundaries would not result in a change to fishing; therefore, there would be no change to the sustainability of fishing under this alternative, as described in the No-action Alternative. There would be no change to greenhouse gas emissions.

Alternative 3. Codification of the commercial fishing prohibition and the Monument boundaries, and sustainable management of non-commercial fishing using permits and logbooks in the Islands Unit is not expected to result in an increase in the amount of fishing in the Islands Unit. Emissions resulting from the proposed action are expected to have negligible effects on climate change. In addition, the proposed action is not expected to affect the vulnerability of ecosystems, communities, or marine resources, including target, non-target, and protected species, when considered together with the potential impacts of climate change. Moreover, the requirement for permits and logbooks would allow fishery scientists and managers to monitor fishing in order to detect any impacts of climate change on MUS stocks.

#### 4.1.8 Cumulative Impacts

Alternative 1. The low level of impacts to the environment that are occurring under the No-action Alternative would not interact with other activities that affect the same areas or

species that would be harvested. More detail about other activities and impacts on the proposed management of non-commercial fishing is provided in section Table 10 below.

Alternative 2. Codification of the commercial fishing prohibition and the Monument boundaries would not result in a change to fishing; therefore, there would be no change to the lack of cumulative impacts described in the No-action Alternative.

Alternative 3. Codification of the commercial fishing prohibition and the Monument boundaries, and sustainable management of non-commercial fishing in the Islands Unit is not expected to result in a large amount of fishing in the Islands Unit, and harvests would continue to be sustainable. There would be no other fishery harvest in the Islands Unit, than those managed under the preferred alternative, and fishing that occurs outside of the Monument would not be at greater levels that is already occurring. Because of the low level of fishing, the requirement for permits and logbooks, and a prohibition on mixed commercial and non-commercial fishing on the same trip which would discourage commercial harvests from the Islands Unit, and because none of the target stocks would be adversely affected even when other fishing impacts on those stocks are considered, this alternative would not combine with other activities to result in adverse environmental effects.

## 4.2 Potential Impacts in the Pacific Remote Islands Monument

### 4.2.1 Likely level, type and area of fishing

Alternative 1. Under the No-action Alternative, commercial fishing would continue to be prohibited in the PRI by Proclamation. Because of the remote distance from populated islands, only a limited amount of non-commercial fishing is likely to be occurring in the PRI, and most is expected to be occurring around Palmyra Atoll by visitors sailing to the National Wildlife Refuge. If non-commercial fishing is occurring, it is likely to be non-commercial troll fishing for Pelagic Management Unit Species (MUS). While information is not currently available on what trips are occurring, NMFS estimates that ten trips a year may occur.

Under the No-action Alternative, commercial fishing may occur in waters outside of the, PRI on the same trip as a non-commercial fishing trip in the PRI. Fish caught outside the PRI Monument can be sold. It is expected that more trolling would occur outside the PRI on the return trip, than would occur inside the PRI because the fish would be fresher upon return.

All pelagic catches are subject to management measures agreed to under international organizations, such as the Western and Central Pacific Fisheries Commission, and continue to be monitored by NMFS and the Council.

Alternative 2. Regulations would prohibit commercial fishing in the PRI. The same amount of low level non-commercial fishing as is currently occurring (estimated 10 trips annually) would likely occur under this alternative. As no new fishery management

measures are proposed, the type of fishing is expected to be the same as under the No-action Alternative.

Alternative 3. Under the preferred alternative, regulations would prohibit commercial fishing in the PRI and permits and logbooks would be required for troll fishing. Because of the proposed no-take zone from 0-12nm from shore, the likely type of fishing would be a low level of non-commercial troll and handline fishing beyond 12nm from shore. Fish caught in the PRI Monument could not be sold, and fish caught outside of the PRI could not be sold on the same trip as a non-commercial Monument fishing trip. The prohibition on mixing a non-commercial and commercial trip is expected to reduce interest in a fishing permit; and, if a fishing permit is used, only a limited amount of fish is expected to be caught. Customary exchange would not be allowed. Without the opportunity to recoup costs, interest is expected to be low and NMFS anticipates only up to 15 permit requests a year.

For this impact analysis, under the preferred alternative, the regulations would remove ambiguity about fishing in the PRI and this might increase interest in fishing in the Monument; so there could be additional trips occurring that might not occur under the No-action Alternative. For this reason, the impact analysis expands the expected current level of fishing from approximately 10 trips per year to approximately fifteen per year of either type of fishing: either non-commercial or charter for hire fishing in the Monument.

Because of the proposed establishment of a no-take zone from 0-12nm around the PRI, the most likely type of fishing would be trolling beyond 12nm. As with the other alternatives, all pelagic catches would continue to be subject to management measures agreed to under international organizations, such as the Western and Central Pacific Fisheries Commission, and continue to be monitored by NMFS and the Council.

### 4.2.2 Potential Impacts to Target and Non-Target Stocks in the PRI Monument

Alternative 1. No Action:

Commercial fishing would continue to be prohibited in the PRI pursuant to the Proclamation. Under this Alternative, there would be no specific management of non-commercial fishing in the Monument and, because non-commercial fishing is not specifically managed, there could be non-commercial fishing in the Monument. Due to the distance from populated areas, the amount of troll fishing is likely very limited.

All fishing in the Monument must comply with the existing PRIA FEP and the Pelagics FEP requirements. The very limited amount of fishing that is occurring at Wake Island and Palmyra Atoll close to shore is expected to continue under the No-Action Alternative and is considered sustainable because of the limited level of fishing, and oversight by the USFWS. The no-take zone (from 0-50 fm) for all species around the PRI (except for Wake Island and Palmyra and Johnston Atolls) would continue. The low-take zone (from 0-50 fm) for all species around Wake Island and Palmyra and Johnston Atolls would also

continue. These low and no-take zones provide conservation benefits to the resources that occur from the shoreline down to 50 fm.

The amount of pelagic fish that could be caught in 30 days of fishing around the PRI (assuming ten trips per year with each fishing trip lasting 2 days in the Monument) is not known; however it is estimated that this amount of fishing would be harvesting only a small fraction of the available pelagic biomass.

Alternative 2. The codification of the prohibition on commercial fishing in the PRI and of the Monument boundaries would not affect fishing or impacts. Therefore, due to the far distance from populated areas, the low level of fishing, and the production estimated in the PRI units, as with Alternative 1, fishing that would occur under Alternative 2 would be sustainable.

Alternative 3. Under the preferred alternative, the small number of non-commercial fishing trips to the PRI units is expected to result in minimal harvests each year, and harvests would be reported on logbooks. Because the proposed action would establish a no-take zone in all PRI Monument Units from 0-12nm from shore, subject to authorization of fishing by the U.S. Fish and Wildlife Service in consultation with NMFS and the Council, non-commercial fishing for bottomfish, crustaceans, precious coral and coral reef MUS is not expected to occur within the PRI Monuments because benthic habitat features that may support these fisheries are not likely to occur beyond 12 nm. Therefore, there are currently no Annual Catch Limits for these MUS in the PRI. Similarly, ACLs have not been established for Pelagic MUS because these species qualify for an exemption from ACLs as stocks with a one year life cycle (i.e., squid), or as internationally managed stocks (all pelagic finfish).

A low level of non-commercial troll fishing would occur in the PRI, beyond 12nm. The fishing is expected to occur primarily at Palmyra Atoll and use hooks and line, near the surface to catch pelagic fishes.

The potential impacts of up to 15 non-commercial fishing trips to the PRI Monument annually were evaluated using an estimate of catches. For pelagic fishing, at a maximum we estimate that all 15 vessels would spend 2 days in the PRI catching fish. This is a high estimate because in reality, 15 vessels per year is likely a very high estimate, and some vessels would spend fewer days catching fish in the Monument.

Fish that would be caught by trollers include: yellowfin tuna some bigeye tuna, mahimahi, and wahoo.

Estimated catch and impact to target / non target stocks:

Currently, there are no available fishery statistics for pelagic troll fishing from within the PRI Monument. Therefore, for this analysis, catch statistics from the Hawaii troll fleet was used as a proxy. According to the 2010 Pelagic fishing report (WPRFMC 2012a), the average daily catch by the Hawaii troll fishery for all pelagic species combined was 98 lb.

Assuming 15 annual trips fishing for 2 days per trip, approximately 30 fishing days fishing for Pelagic MUS would occur in the Monument. Assuming 98 lb per fishing day multiplied over 30 days fishing in a year, it can be estimated that 2,940 lb of pelagic species could be caught. This is just one-tenth of one percent of the total pelagic MUS caught by Hawaii troll fishery which landed 2.8 million lbs of pelagic MUS in 2010 (WPFMC 2012). This low level of harvest is not expected to adversely affect any of the fish stocks that would be caught. Although bigeye tuna stocks are subject to international efforts to regulate harvests to ensure sustainability the low level of catch of BET that is expected would not have an impact on BET stocks in the Pacific.

#### 4.2.3 Potential Impacts to Protected Species in the PRI Monument

Alternative 1. There are no reports of interactions between seabirds, marine mammals, and sea turtles and non-commercial troll fisheries in the PRI, and there would be no change to the gear used, the areas fished, or other requirements that affect fishing in the PRI. The troll fisheries in the Monuments are operating in accordance with the 2009 Biological Opinion for the western Pacific troll and handline fisheries consistent with the Endangered Species Act. There would be no change to the existing low level of non-commercial fishing in the Monuments under the No-action Alternative, and interactions with protected species would remain very low.

Alternative 2. Codification of the prohibition on commercial fishing and the boundaries of the Monument would not change the amount, type, or location of non-commercial fishing in the PRI. As no new fishery management actions are proposed under this alternative, the impacts would be the same as under the No-action Alternative. As with the No-action Alternative, non-commercial fishing in the PRI would continue to operate in accordance with the existing BiOp.

Alternative 3. Under the preferred alternative, commercial fishing would continue to be prohibited and a no-take area would be established around the PRI monuments from 0-12 nm, subject to authorization of fishing by the U.S. Fish and Wildlife Service in consultation with NMFS and the Council. A very low amount of non-commercial troll fishing is expected to occur in the pelagic areas beyond 12 nm in the Monument. Non-commercial pelagic troll fishing is most likely to occur around Palmyra Atoll by visitors traveling to and from the Refuge by yacht or fishing boat. The distance from populated areas, the high cost of a trip to the remote areas, and the prohibition on mixing commercial fishing outside the Monument and non-commercial fishing with a permit inside the Monument, and the prohibition on customary exchange are all likely to reduce interest by most troll fishermen in the permit.

The impacts of western Pacific troll fishing on listed species were considered by NMFS in 2009, and are documented in detail in the “Biological Opinion for the Continued Authorization of Troll and Handline Fisheries of the Western Pacific Region” or BiOp (NMFS, 2009). The analysis considered biological and/or ecological information for blue, fin, humpback, North Pacific right, sei and sperm whales; and hawksbill leatherback, loggerhead, and olive ridley turtles. The most likely stressors and impacts were 1) collisions with fishing vessels; 2) hooking or entanglement in fishing gear; 3)

disturbance from human activity and equipment operations; 4) exposure to vessel wastes; 5) direct and indirect competition for forage; or 6) exposure to marine mammal deterrents. The findings of the BiOp are summarized here.

Potential impacts of vessels on listed sea turtles and marine mammals:

No collisions with protected species have been reported for any troll or handline fleet of the western Pacific region, but the potential for collisions exist. Collisions are most likely in nearshore waters where densities of ESA-listed marine species and vessel traffic (around the populated islands) are highest. The BiOp describes the extremely low likelihood of hawksbill vessels strikes, and concluded that, based on a total 39,157 troll and handline trips throughout the western Pacific region (e.g., Hawaii, American Samoa, the Marianas and the PRIA), it is discountable that hawksbill turtles will be stuck by vessels. The preferred alternative would not change the number of vessel trips that are made in populated areas (e.g., by fishermen departing ports in Hawaii), and the limited number of trips that would be made to the PRI is a fraction of the level of activity that was evaluated for the commercial troll fishery in the 2009 BiOp. The estimated 15 non-commercial fishing trips to the PRI in a year, maximum, are not expected to result in interactions with endangered sea turtles because sea turtle densities in the areas from 12-50nm from shore, are not expected to be high, vessel operators would make every effort to avoid collisions, and sea turtles are likely to be able to avoid vessels.

The 2009 BiOp on the western Pacific troll fisheries concluded that due to the low densities of leatherback, loggerhead, and olive ridley sea turtles, and blue, fin, humpback, North Pacific right, sei and sperm whales, and the low density of troll vessels fishing in open waters, that collisions with these species would be even lower than that described for hawksbill sea turtles. The open water trolling areas around the PRI are also expected to have relatively low densities of sea turtles. Together with the very low level of non-commercial fishing that is expected in the PRI means that collisions with any listed species would be very rare.

The 2009 BiOp considered the potential for green sea turtle mortality associated with vessel collisions around the western Pacific including around Hawaii – the area that most fishing vessels fishing in the PRI are likely to come from. For all western Pacific areas, a maximum of four green turtle mortalities annually from all troll fishing in Hawaii, American Samoa, the Marianas and the PRI were expected. For the analysis, it was assumed that three green turtle mortalities would come from the central Pacific population and one from the western Pacific population. The analysis found that the continued authorization of the western Pacific troll fishery was not expected to result in an expansion of the troll fishery, so the impact of this level of mortalities to both affected populations would be negligible. The 2009 BiOp found that western Pacific troll fisheries were not likely to jeopardize the continued existence of green sea turtles, nor is it likely to adversely affect blue, fin, humpback, North Pacific right, sei and sperm whales, or hawksbill, leatherback, loggerhead, and olive ridley sea turtles.

Troll vessels are not known to have impacts on other marine mammals. Marine mammals such as dolphins would be able to move away from vessels to avoid being struck; also, vessel operators, would also try to avoid colliding with sea turtles and marine mammals. For these reasons, and because of the very low amount of vessel activity anticipated as a result of allowing a low level of non-commercial fishing in the PRI, vessel collisions with marine mammals are considered unlikely.

Another potential impact of fishing vessels is disturbance to protected species. The most likely effect on turtles, or listed marine mammals from a vessel encounter would be infrequent, low to moderate level stress, with a moderate to high energy –requiring avoidance behavior culminating in an animal moving away on its own without an injury or reduction in fitness. Thus, this type of interaction is expected to have insignificant effects on listed species.

Exposure to vessel wastes: Local and Federal regulations prohibit intentional discharge, and the small size of the vessels involved is expected limit the size of potential discharges. Therefore, potential spills and discharges are expected to be infrequent, small, and quickly diluted or dispersed if they do occur. Because of this, NMFS found that exposure to vessel wastes and discharges that may result from this action will result in insignificant effects on listed marine species.

In addition to vessel impacts, the troll fishing in the PRI and its potential impacts on listed species are as follows:

(1) Troll fishing

The low density of vessels, the limited number of fishing trips, and limited duration of each fishing trip are all factors that reduce the likelihood that there would be interactions between vessels and seabirds, marine mammals or sea turtles. The impacts of troll fishing on sea turtles and marine mammals include the possibility of hooking or entanglement in fishing gear. In its 2009 BiOp, NMFS evaluated the likelihood of troll fisheries hooking or entangling sea turtles and listed marine mammals and found that it is highly unlikely that either would be able to bite trolled lures or baits. Lures and bait are pulled through water faster than sea turtles can swim, and do not represent potential prey for sea turtles or marine mammals. There is a small potential that sea turtles or marine mammals could be snagged by troll hooks, and then entangled in line. However, interactions with the troll fishery in populated areas are very rare, and expected to continue to be rare. The small size of hooks used, the external nature of potential hookings, and the likelihood of removing all gear from turtles and the fact that any trailing line would be short and of relatively light-test. In the case of whales, hooking would likely be external and the relatively small hooks and light test line could lead to trailing line until the hook rusts or falls out. The 2009 BiOp found that the effects of all of these unlikely interactions would not result in insignificant injuries and would not reduce the fitness of an animal that might be hooked during troll fishing.

The impacts of troll fishing in terms of direct and indirect competition for forage were considered in the 2009 BiOp. It found that while sperm whales prey directly on the target and bycatch of the fishery, they typically prey on large deepwater squid and other deep water species near the bottom in deep water; whereas the troll fishery target and bycatch species inhabit relatively shallow near-surface waters. The small amount of pelagic fish biomass that is removed by western Pacific troll and handline fisheries was considered insignificant in terms of its impact on the demersal trophic web. With the low level of troll fishing that is expected to occur in the PRI, the impact on the trophic web and from competition with other species that eat pelagic fishes is still within the levels that were already considered and is not likely to have an adverse effect on other species.

#### 4.2.4 Potential Impacts to Fishery Participants and Fishing Communities in the PRI Monument

Alternative 1. There are no identified or affected fishing communities in the PRI.

Under the No-action Alternative, commercial fishing would continue to be prohibited pursuant to the Proclamation. A low level of non-commercial troll fishing, likely originating from Hawaii may be occurring in the PRI. Under this alternative, people who fish non-commercially in the Monument may sell fish that are harvested outside of the Monument. Sharing of fish caught in the Monument can occur as well. Fishing in the PRI requires either a PRI FEP fishing Permit or western Pacific Pelagics permit (depending on the MUS to be harvested), and fishermen are required to fill out and submit logbooks.

Alternative 2. Codifying the prohibition on commercial fishing and the boundaries of the Monument would not change the type of fishing, location, or area; therefore, the same level of non-commercial fishing would occur under this alternative as the No-action Alternative. People fishing in the PRI could sell fish caught outside the Monument, so sales as well as exchanges of fish could continue.

Alternative 3. Under the preferred alternative, a no-take zone would be established from shore out to 12nm in the PRI Units, subject to authorization of fishing by the U.S. Fish and Wildlife Service in consultation with NMFS and the Council. Beyond 12nm, non-commercial fishing would require either a monument charter fishing permit or a PRI FEP Permit or western Pacific Pelagics permit. Fishermen would continue to be required to fill out and submit logbooks. Applying for permits, and filling out and submitting logbooks would take time and money (see Section 5.7).

Trip costs are not evaluated here because there are very few non-commercial fishing trips taken to the PRI. A small amount of non-commercial recreational fishing may occur by charter vessels, yachters, or fishermen visiting Palmyra Atoll from Hawaii, but information is anecdotal.

The preferred alternative would not change the authorization of fishing at Palmyra Atoll and Wake Island that is managed by USFWS; however, because it would occur in consultation with NMFS and the Council, information would be available for monitoring

purposes. Because there would be no large change to the management of non-commercial fishing around the PRI Monument, there would be no adverse impacts to fishery participants from implementing the proposed management program.

### 4.2.5 Potential Impacts on Marine Habitat and Biodiversity in the PRI Monument

Alternative 1. Under the No-action Alternative, commercial fishing would continue to be prohibited by Proclamation. Non-commercial fishing was not specifically managed and so the existing low level on non-commercial fishing in the PRI is likely to continue to occur. Also, non-commercial fishing could be combined with commercial fishing outside of the Monument. Under existing regulations in the Pelagics and the PRIA FEPs, all fishermen that fish in the PRIA are allowed to use only specific selective non-destructive types of fishing gear. When properly deployed, monitored, and retrieved, the Council has found that these types of fishing gears do not have adverse impacts to marine habitat, including essential fish habitat (EFH) and habitat areas of particular concern (HAPC).

Impacts to benthic habitat that may occur during normal fishing operations include anchor damage, loss of gear (leaders, hooks, and weights). Troll fishing does not require anchoring, and gear loss in troll fishing is rare. There are no known large adverse impacts to marine habitat in the PRI from troll fishing.

The low level of non-commercial troll fishing that is occurring in the PRI under the PRIA FEP and the Pelagics FEP does not have an adverse effect on biodiversity because fishing is so limited and fishing affects a very small proportion of the available fish stocks.

Alternative 2. The codification of the prohibition on commercial fishing in the PRI and the boundaries of the Monument would not change the type of fishing, gear used, or areas fished. As no new fishery management measures are proposed, this alternative would have the same impact on marine habitat and biodiversity as Alternative 1.

Alternative 3. Under the preferred alternative, the no-take areas in the PRI Monument Units would be expanded from 0-50 fm to 0-12 nm from shore; although these areas would be subject to fishing authorized by the USFWS in consultation with NMFS and the Council. This would protect coral reef, crustacean, and bottomfish EFH.

The very limited amount of catch from a maximum of 15 fishing trips to the PRI is not expected to deplete stocks or compete with other organisms that target the same species; and therefore, this alternative would not have an adverse effect on biodiversity of the PRI Permits and logbooks would continue to allow monitoring of catch and effort in the Islands Unit, and would allow for changes to fishery management, if needed.

### 4.2.6 Potential Impacts to Administration, Enforcement, and Compliance in the PRI Monument

Alternative 1. Under the No-action Alternative, commercial fishing is prohibited by Proclamation. A low level of non-commercial fishing may occur in the PRI. Enforcement of existing Magnuson-Stevens Fishery Conservation and Management regulations would continue. Under the No-action Alternative, applicable PRI FEP and Pelagics FEP permits would still be needed to fish in the EEZ around the PRI. There would be no new costs for fishery management administration. Compliance with the prohibition on selling fish caught in the PRI would be difficult when fish caught outside the PRI can be sold.

Alternative 2. This alternative would improve enforcement of the prohibition on non-commercial fishing by allowing enforcement of the prohibition to occur in accordance with the Magnuson Stevens Fishery Conservation and Management Act. Compliance would be enhanced because the boundaries would be codified in the FEPs and the regulations.

There would be very limited administrative costs to the government for changing the regulations and to the Council to change the FEPs and to both for outreach and education.

There would be no new costs to fishermen under this alternative.

Alternative 3. Under the preferred alternative, the codification of the prohibition of commercial fishing prohibition and the Monument boundaries would enhance compliance and allow enforcement under the MSFCMA.

Non-commercial fishing in the Monument would require a permit and logbooks. There would be some costs to permit applicants to obtain a permit (unless those costs are waived), and costs and time required to file logbooks. Not all people who are on a fishing trip would be required to have a fishing permit. Only the owner and operator of the vessel fishing in the PRI would be required to have a permit.

The requirement for permits would aid enforcement of fishing in the PRI and the prohibition on commercial fishing on the same trip as a non-commercial fishing trip to the Monument would also improve the enforceability of the prohibition on commercial fishing in the Monument.

The preferred alternative would result in small additional administrative costs to the government needed to change the regulations and to the Council to amend the FEPs. There would be very limited administrative costs to the government for changing the regulations and to the Council to change the FEPs and to both for outreach and education. There would be administrative and supply costs to the government for the development of paper and digital application and permit forms, review of applications, including confirmation of permit qualifications; and for the acceptance and processing of logbooks. NMFS expects the level of interest in the permits to be very low due to the distance and costs associated with such trips. Section 5.7 includes more information about the potential administrative costs associated with the proposed noncommercial fishing permit and logbook management program.

### 4.2.7 Potential climate change impacts - PRI

Alternative 1. Although climate change is known to affect marine resources and ecosystems, impacts of climate change on marine resources, human communities and ecosystems at the regional level have not been quantified. The extremely low level of non-commercial fishing that may be occurring in the PRI is not expected to have an appreciable effect on the intensity or rate of climate change, or increase the vulnerability of any resource, ecosystem, or human community to climate change impacts.

Alternative 2. Codification of the commercial fishing prohibition and the Monument boundaries would not result in a change to fishing; therefore, there would be no change to the sustainability of fishing under this alternative, as described in the No-action Alternative. There would be no change to greenhouse gas emissions.

Alternative 3. Codification of the commercial fishing prohibition and the Monument boundaries, and sustainable management of non-commercial fishing using permits and logbooks is not expected to result in an increase in the amount of fishing in the Islands Unit. Emissions resulting from the proposed action are expected to have negligible potential effects on climate change. In addition, the proposed action is not expected to affect the vulnerability of ecosystems, communities, or marine resources, including target, non-target, and protected species, when considered together with the potential impacts of climate change. Moreover, the requirement for permits and logbooks would allow fishery scientists and managers to monitor fishing in order to detect any impacts of climate change on MUS stocks .

### 4.2.8 Cumulative Impacts - PRI

Alternative 1. The low level of impacts to the environment that are occurring under the No-action Alternative would not interact with other activities that affect the same areas or species that would be harvested. More detail about other activities and impacts on the proposed management of non-commercial fishing is provided in section Table 10 below.

Alternative 2. Codification of the commercial fishing prohibition and the Monument boundaries would not result in a change to fishing. As no new management measures are being proposed, the impacts would be the same as in the No-action Alternative; there would be no cumulative impacts.

Alternative 3. Codification of the commercial fishing prohibition and the Monument boundaries, and sustainable management of non-commercial fishing in the PRI are not expected to result in a large amount of fishing in the PRI, and harvests would continue to be sustainable. There would be only a limited amount of fishing, authorized by the USFWS, in consultation with NMFS and the Council, and because of the low level, and management monitoring, this is not expected to interact with the potential pelagic harvests in the PRI to cause an adverse effect to any MUS stocks. Because of the low level of fishing, the requirement for permits and logbooks, and a prohibition on mixed commercial and non-commercial fishing on the same trip which would discourage

commercial harvests from the PRI, and because none of the target stocks would be adversely affected even when other fishing impacts on those stocks are considered, this alternative would not combine with other activities to result in adverse environmental effects.

## 4.3 Potential Impacts in American Samoa (Rose Atoll Monument)

### 4.3.1 Likely level, type and area of fishing

Alternative 1. Under the No-action Alternative, because of the remote distance from populated islands, and because the waters of the Refuge are closed out to 3 nm from land, only a limited amount of non-commercial troll fishing is expected to be occurring in Rose Atoll. While information is not currently available on what trips are occurring, NMFS estimates that ten trips a year may be occurring. All pelagic catches are subject to management measures agreed to under international organizations, such as the Western and Central Pacific Fisheries Commission, and are monitored by NMFS and the Council.

Under the No-action Alternative, commercial fishing may occur in waters outside of the Monument on the same trip as a non-commercial fishing trip in Rose Atoll. Fish caught outside the Monument can be sold. It is expected that more trolling would occur outside the Monument on the return trip, than would occur inside Rose Atoll because the fish would be fresher upon return.

Alternative 2. Regulations would prohibit commercial fishing at Rose Atoll. The same amount of low level non-commercial fishing as is currently occurring (estimated 10 trips annually) would likely occur under this alternative. As no new fishery management measures are being proposed, the type of fishing would be the same as under the No-action Alternative.

Alternative 3. Under the preferred alternative, regulations would prohibit commercial fishing in Rose Atoll and permits and logbooks would be required for non-commercial troll fishing. Because of the proposed establishment of a no-take zone from 0-12nm around Rose Atoll, a low level of non-commercial troll fishing would likely occur in the Monument beyond 12 nm from shore. Unlike Alternatives 1 and 2, under this Alternative, fish caught outside the Monument Unit on the same trip as a non-commercial fishing trip inside the Monument may not be sold. The prohibition on mixing a non-commercial and commercial trip is expected to reduce interest in a fishing permit and if a fishing permit is used, it is expected to result in only a low level of fish being harvested. Customary exchange would be allowed, which would help maintain interest in the permits. For this reason, NMFS estimates that there would be up to 10 permits requested a year by either type of fishing: either non-commercial or charter for hire fishing in the Monument.

As with the other alternatives, all pelagic catches would continue to be subject to management measures agreed to under international organizations, such as the Western and Central Pacific Fisheries Commission, and continue to be monitored by NMFS and the Council.

### 4.3.2 Potential Impacts to Target and Non-Target Stocks (Rose Atoll)

Alternative 1. Commercial fishing would continue to be prohibited in the PRI. Under this Alternative, there would be no specific management of non-commercial fishing in the Monument and, because non-commercial fishing is not specifically managed, there could be non-commercial fishing in the Monument.

All fishing in the Monument would need to comply with existing American Samoa FEP and Pelagics FEP requirements. The very limited amount of fishing that is occurring is likely to be trolling.

The amount of pelagic fish that could be caught in 30 days of fishing around the PRI (assuming there are up to ten trips of 3 days duration in the Monument) is not known, however, it is estimated that this amount of fishing would be a small fraction of the amount of pelagic fish caught by the American Samoa longline fishery and is considered sustainable .

Alternative 2. The codification of the prohibition on commercial fishing in the Monument and of the Monument boundary would not affect fishing or impacts. As there would be no new management measures, the potential impacts to target and non-target stocks would be the same as under Alternative 1.

Alternative 3.Under the preferred alternative, even with new permits available for fishing in the Rose Atoll Monument, there is expected to be a very low level of fishing for pelagic species beyond 12nm from shore. The level of activity is expected to be low because of the long distances and costs involved to reach the monument. Also, the prohibition on mixing commercial fishing outside of the monument and non-commercial fishing inside the Monument on the same trip would reduce demand for permits.

With permit and reporting requirement, NMFS estimates that up to 10 non-commercial fishing trips a year would be taken to Rose Atoll. Assuming 10 annual trips, fishing for 3 days per trip, at 12 hours/day, this would result in approximately 36 hours fishing for pelagic MUS per trip or 360 fishing hours annually. Based on the Councils 2010 Pelagic Fisheries Annual Report (WPFMC, 2012), the CPUE of the American Samoa pelagic troll fishery is 26 lb of pelagic MUS per fishing hour. Based on this estimate, approximately 9,360 lb of pelagic MUS could be harvested from the Rose Atoll Monument annually. Compared to the American Samoa longline fishery which landed nearly 11 million pounds of pelagic MUS in 2010, this low level of fishing is not expected to adversely affect any fish stocks. Requiring federal permit and logbook reporting for non-commercial fishing in the Rose Atoll Monument would allow managers to monitor how much fish is being harvested from the Monument.

The 0-12nm no take marine zone would prevent harvests, and would extend the current no-take zone.

### 4.3.3 Potential Impacts to Protected Species (Rose Atoll Monument)

Alternative 1. There are no reports of interactions between seabirds, marine mammals or sea turtles and non-commercial troll fisheries in the American Samoa troll fisheries, or at Rose Atoll, and there would be no change to the gear used, the areas fished, or other requirements that affect fishing at Rose Atoll. Therefore, it is unlikely that seabirds, marine mammals, or sea turtles are interacting with non-commercial troll fishing in the Monument in any manner not already considered in fishery reviews under the ESA and the MMPA. Troll fisheries around American Samoa are operating in accordance with the 2009 Biological Opinion (BiOp) for western Pacific troll and handline fisheries developed in accordance with the Endangered Species Act. A summary of the conclusions is provided below, under Alternative 3. There would be no change to the existing low level of fishing in the Monuments under the No-action Alternative, and interactions with protected resources would remain very low.

Alternative 2. Codification of the prohibition on commercial fishing and the boundary of the Monument would not change the amount, type, or location of non-commercial fishing in the Rose Atoll Monument. As no new fishery management measures are being proposed, the potential impacts of this alternative would be the same as under the No-action Alternative. As with the No-action Alternative, non-commercial fishing in the Monument would continue to be operating in accordance with the existing BiOp and interactions with protected species would remain very low.

Alternative 3. Under the preferred alternative, a no-take area would be established around Rose Atoll from 0-12 nm. A very low amount of non-commercial troll fishing would occur in the pelagic areas from 12 nm from shore. Non-commercial troll fishing trips would originate from other islands of American Samoa. The distance from populated areas, the high cost of a trip to Rose Atoll, and the prohibition on mixing commercial fishing outside the Monument and non-commercial fishing with a permit inside the Monument on the same trip, are all likely to reduce interest by most troll fishermen in the permit.

The impacts of western Pacific troll fishing on listed species were considered by NMFS in 2009, and are documented in detail in the "Biological Opinion for the Continued Authorization of Troll and Handline Fisheries of the Western Pacific Region" (NMFS, 2009). The analysis considered biological and/or ecological information for blue, fin, humpback, North Pacific right, sei and sperm whales; and hawksbill leatherback, loggerhead, and olive ridley turtles. The most likely stressors and impacts were 1) collisions with fishing vessels; 2) hooking or entanglement in fishing gear; 3) disturbance from human activity and equipment operations; 4) exposure to vessel wastes; 5) direct and indirect competition for forage; or 6) exposure to marine mammal deterrents. The findings of the BiOp are summarized here.

Potential impacts of vessels on listed sea turtles and marine mammals:

No collisions with protected species have been reported for any troll or handline fleet of the western Pacific region, but the potential for collisions exist. Collisions are most likely

in nearshore waters where densities of ESA-listed marine species and vessel traffic (around the populated islands) are highest. The BiOp describes the extremely low likelihood of hawksbill vessels strikes, and concluded that, based on a total 39,157 troll and handline trips throughout the western Pacific region (e.g., Hawaii, American Samoa, the Marianas and the PRIA), it is discountable that hawksbill turtles will be stuck by vessels. The preferred alternative would not change the number of vessel trips that are made in populated areas of American Samoa, and the limited number of non-commercial troll fishing trips that would be made to Rose Atoll (estimated as 10 annually, at most) is well within the level of trolling activity that was evaluated for the American Samoa commercial troll fishery in the 2009 BiOp for the troll and handline fisheries and would not represent an expansion of troll effort. Vessels trolling in the Monument are not expected to result in interactions with endangered sea turtles because sea turtle densities are not expected to be high, vessel operators would make every effort to avoid collisions, and sea turtles are likely to be able to avoid vessels.

The 2009 BiOp on the western Pacific troll fisheries concluded that due to the low densities of leatherback, loggerhead, and olive ridley sea turtles, and blue, fin, humpback, North Pacific right, sei and sperm whales, and the low density of troll vessels fishing in open waters, that collisions with these species would be even lower than that described for hawksbill sea turtles. The open water trolling areas around Rose Atoll are also expected to have relatively low densities of sea turtles. This together with the very low level of non-commercial fishing in the Monument means that collisions with any listed species would be very rare.

The 2009 BiOp on the western Pacific troll fisheries considered the potential for green sea turtle mortality associated with vessel collisions around the western Pacific including around American Samoa. For all western Pacific areas, a maximum of four green turtle mortalities annually from all troll fishing in Hawaii, American Samoa, the Marianas and the PRI were expected. For the analysis, it was assumed that three likely would come from the central Pacific green turtle population and one from the western Pacific green turtle population. The analysis found that the continued authorization of the western Pacific troll fishery was not expected to result in an expansion of the troll fishery, so the impact of this level of mortalities to both affected populations would be negligible. The 2009 BiOp found that western Pacific troll fisheries are not likely to jeopardize the continued existence of green sea turtles, nor do they likely to adversely affect blue, fin, humpback, North Pacific right, sei and sperm whales, or hawksbill, leatherback, loggerhead, or olive ridley sea turtles.

Troll vessels are not known to have impacts on other marine mammals. Marine mammals such as dolphins would be able to move away from vessels to avoid being struck; also, vessel operators, would also try to avoid colliding with sea turtles and marine mammals. For these reasons, and because of the very low amount of vessel activity anticipated as a result of allowing a low level of non-commercial fishing in the Rose Atoll Monument, vessel collisions with marine mammals are considered unlikely.

Another potential impact of fishing vessels is disturbance to protected species. The most likely effect on turtles, or listed marine mammals from a vessel encounter would be infrequent, low to moderate level stress, with a moderate to high energy –requiring avoidance behavior culminating in an animal moving away on its own without an injury or reduction in fitness. Thus, this type of interaction is expected to have insignificant effects on listed species.

Exposure to vessel wastes: Local and Federal regulations prohibit intentional discharge, and the small size of the vessels involved is expected limit the size of potential discharges. Therefore, potential spills and discharges are expected to be infrequent, small, and quickly diluted or dispersed if they do occur. Because of this, the BiOp concluded that exposure to vessel wastes and discharges that may result from this action will result in insignificant effects on listed marine species.

Potential impacts of troll fishing at Rose Atoll on listed species are as follows:

(1) Troll fishing

The low density of vessels, the limited number of fishing trips, and limited duration of each fishing trip are all factors that reduce the likelihood that there would be interactions between vessels and seabirds, marine mammals or sea turtles. The impacts of troll fishing on sea turtles and marine mammals include the possibility of hooking or entanglement in fishing gear. In its 2009 BiOp, NMFS evaluated the likelihood of troll fisheries hooking or entangling sea turtles and listed marine mammals and found that it is highly unlikely that either would be able to bite trolled lures or baits. Lures and bait are pulled through water faster than sea turtles can swim, and do not represent potential prey for sea turtles or marine mammals. There is a small potential that sea turtles or marine mammals could be snagged by troll hooks, and then entangled in line. However, interactions with the troll fishery in populated areas are very rare, and expected to continue to be rare. The small size of hooks used, the external nature of potential hookings, and the likelihood of removing all gear from turtles and the fact that any trailing line would be short and of relatively light-test. In the case of whales, hooking would likely be external and the relatively small hooks and light test line could lead to trailing line until the hook rusts or falls out. The 2009 BiOp found that the effects of all of these unlikely interactions would not result in insignificant injuries and would not reduce the fitness of an animal that might be hooked during troll fishing.

The impacts of troll fishing in terms of direct and indirect competition for forage were considered in the 2009 BiOp covering the troll fisheries. It found that while sperm whales prey directly on the target and bycatch of the fishery, they typically prey on large deepwater squid and other deep water species near the bottom in deep water; whereas the troll fishery target and bycatch species inhabit relatively shallow near-surface waters. The small amount of pelagic fish biomass that is removed by western Pacific troll and handline fisheries was considered insignificant in terms of its impact on the demersal trophic web. With the low level of troll fishing that is expected to occur at Rose Atoll, the impact on the trophic web and from competition with other species that eat pelagic

fishes is still within the levels that were already considered and is not likely to have an adverse effect on other species.

#### 4.3.4 Potential Impacts to Fishery Participants and Fishing Communities (Rose Atoll Monument)

Alternative 1. Under the No-action Alternative, there could be a low level of non-commercial troll fishing in the Monument. Fish caught outside of the Monument could be sold or exchanged.

Alternative 2. Codifying the prohibition on commercial fishing and the boundary of the Rose Atoll Monument would not change the type of fishing, location, or area; therefore, the same level of fishing would occur under this alternative as the No-action Alternative. People fishing around Rose Atoll could sell fish caught outside the Monument, so sales as well as exchanges of fish could continue.

Alternative 3. Under the preferred alternative, there would be a no-take marine zone from 0-12 nm from shore; and permit and logbooks would be required for people to be able to fish in the Monument beyond 12nm from shore. The opportunity to fish in the Monument and share fish under customary exchange would allow the continuation of social practices involving fishing and the post-harvest distribution of fishery resources that are part of cultural norms. With regard to the no-take area being recommended for 0-12 nm around Rose Atoll, the Council would review the no-take regulations in three years.

Under the Council's recommendation to maintain the practice of customary exchange of fish harvested by non-commercial fishermen in the Rose Atoll MNM, cash reimbursements for actual trip costs would be allowed. Trip costs were evaluated for non-commercial fishing in Rose Atoll MNM, and based on distances between trip origination and Monuments, length of fishing trip, current fuel costs, bait cost, and food for crew (Table 9). If cost reimbursement for a trip was not fully realized, fishermen could incur a loss. There are no known recreational charter cost analyses so similar costs are assumed charter fishing operations.

Based on estimated trip costs, the following estimates were made:

Possible trip cost reimbursement for Rose Atoll MNM:

- 1-day trip originating from Manua Islands = $ 205
- 3-day trip originating from the Manua Islands = $ 1267
- 5-day trip originating from Tutuila = $ 2096

Table 9. Estimated Trip Costs from fishing in Rose Atoll MNM

| Vessel Size | Distance (One way in nm) | Length of trip | Gallons of fuel | Price per gallon | Total fuel cost | Ice costs | Bait costs | Food costs (3 person crew) | Total trip costs |
|---|---|---|---|---|---|---|---|---|---|

| Vessel Size | Distance (One way in nm) | Length of trip | Gallons of fuel | Price per gallon | Total fuel cost | Ice costs | Bait costs | Food costs (3 person crew) | Total trip costs |
|---|---|---|---|---|---|---|---|---|---|
| 27 ft alia vessel from Manua Is. | 25 nm to outer boundary of Rose Atoll | 1 day | 20 | $6.00 | $120 | $20 | $20 | $45 | $205 |
| 49 ft vessel from Tutuila | 95 nm to outer boundary of Rose Atoll | 3 days | 180 | $4.57 | $822 | $250 | $60 | $135 | $1,267 |
| 49 ft vessel from Tutuila | 145 nm to outer boundary of Rose Atoll | 5 days | 300 | $4.57 | $1,371 | $400 | $100 | $225 | $2,096 |

Source: WPFMC, 2012c. Options Paper 7.A(1) 153rd Council meeting March 5-9, 2012.
Notes:
1) The table above assumes that only pelagic trolling would occur due to Council recommendation to establish 0-12 nm no-fishing zone around Rose Atoll.
2) Estimates of price per gallon vary by island and fuel type. Alia vessels in the Manua Islands use gasoline. A 49ft vessel from Tutuila would likely use diesel fuel.
3) Price per gallon estimates were provided on February 7, 2012 by Fini Aitaoto, Council AS Island Coordinator.
4) Fuel consumption estimates provided by Sean Martin, Council member, owner and manager of several longline vessels.

Under the proposed establishment of permits, reporting, and logbooks, non-commercial fishermen would be required to spend time and money to fill out and submit these forms via U.S. mail or other means (see Section 5.7). In addition, since non-commercial permits (including recreational charter) would be valid for one year, participants would need to reapply for a permit and incur the annual cost for a permit. Logbooks would be submitted at any time a non-commercial trip was taken.

#### 4.3.5 Potential Impacts on Marine Habitat and Biodiversity (Rose Atoll Monument)

Alternative 1. Under the No-action Alternative, commercial fishing would continue to be prohibited by Proclamation. Non-commercial fishing was not specifically managed and so the existing low level on non-commercial fishing the Rose Atoll Monument is likely to continue to occur. Also, non-commercial fishing could be combined with commercial fishing outside of the Monument. Under existing regulations in the Pelagics and the American Samoa FEPs, all fishermen that fish in the PRI FEP, are allowed to use only specific selective, non-destructive types of fishing gear. When properly deployed, monitored, and retrieved, the Council has found that these fishing gears do not have

adverse impacts to marine habitat, including essential fish habitat (EFH) and habitat areas of particular concern (HAPC).

Impacts to benthic habitat that may occur during normal fishing operations including anchor damage, loss of gear (leaders, hooks, and weights). Troll fishing does not require anchoring, and gear loss in troll fishing is rare.

The low level of non-commercial troll fishing that is occurring at Rose Atoll in accordance with the American Samoa FEP and the Pelagics FEP, is not known to be adversely affecting biodiversity because fishing is so limited and affects a very small proportion of the available resource.

Alternative 2. The codification of the prohibition on commercial fishing at Rose Atoll and the boundary of the Monument would not change the type of fishing, gear used, or areas fished. As no new fishery management measures are being proposed under this alternative, the impacts would be the same as under the No-action Alternative.

Alternative 3. Under the preferred alternative, the no-take area would be expanded from 0-50 fm to 12 nm from shore. This would protect all known coral reef, crustacean, and bottomfish EFH in the Monument,

The very limited amount of catch from a maximum of 10 fishing trips to Rose Atoll is not expected to deplete stocks or compete with other organisms that target the same species; and therefore, this alternative would not have an adverse effect on biodiversity of Rose Atoll. Permits and logbooks would continue to allow monitoring of catch and effort in the Monument, and would allow for changes to fishery management, if needed.

#### 4.3.6 Potential Impacts to Administration, Enforcement, and Compliance (Rose Atoll Monument)

Alternative 1. Under the No-action Alternative, commercial fishing is prohibited by Proclamation. A low level of non-commercial troll fishing may occur in Rose Atoll. Enforcement of existing Magnuson-Stevens Fishery Conservation and Management regulations would continue. Under the No-action Alternative, applicable American Samoa FEP and Pelagics FEP permits would still be needed to fish in the EEZ around Rose Atoll. There would be no new costs for fishery management administration. Compliance with the prohibition on selling fish caught in the Monument would be difficult when fish caught outside the Monument can be sold.

Alternative 2. This alternative would improve enforcement of the prohibition on non-commercial fishing by allowing enforcement of the prohibition to occur in accordance with the Magnuson Stevens Fishery Conservation and Management Act. Compliance would be enhanced because the boundaries would be codified in the FEPs and the regulations.
There would be low administrative costs to the government for changing the regulations and to the Council to change the FEPs and to both for outreach and education.

There would be no new costs to fishermen under this alternative.

Alternative 3. Under the preferred alternative, the codification of the prohibition of commercial fishing prohibition and the Monument boundaries would enhance compliance and allow enforcement under the MSFCMA.

Non-commercial fishing in the Monument would require a permit and logbooks. There would be some costs to permit applicants to obtain a permit (unless those costs are waived), and costs and time required to file logbooks. Not all people who are on a fishing trip would be required to have a fishing permit. Only the owner and operator of the vessel fishing in the Rose Atoll Monument would be required to have a permit.

The requirement for permits would aid enforcement of fishing in the Monument and the prohibition on commercial fishing on the same trip as a non-commercial fishing trip to the Monument is expected to improve the enforceability of the prohibition on commercial fishing in the Monument.

The preferred alternative would result in small additional administrative costs to the government needed to change the regulations and to the Council to amend the FEPs. There would be low administrative costs to the government for changing the regulations and to the Council to change the FEPs and to both for outreach and education. There would also be administrative and supply costs to the government for the development of paper and digital application and permit forms, review of applications, including confirmation of permit qualifications; and for the acceptance and processing of logbooks. NMFS expects the level of interest in the permits to be very low due to the distance and costs associated with such trips. Section 5.7 includes more information about the potential administrative costs associated with the proposed noncommercial fishing permit and logbook management program.

#### 4.3.7 Potential Climate change impacts – Rose Atoll

Alternative 1. Although climate change is known to affect marine resources and ecosystems, impacts of climate change on marine resources, human communities and ecosystems at the regional level have not been quantified. The extremely low level of non-commercial fishing that may be occurring in the Rose Atoll Monument is not expected to have an appreciable effect on the intensity or rate of climate change, or increase the vulnerability of any resource, ecosystem, or human community to climate change impacts.

Alternative 2. Codification of the commercial fishing prohibition and the Monument boundary would not result in a change to fishing; therefore, there would be no change to the sustainability of fishing under this alternative, as described in the No-action Alternative. There would be no change to greenhouse gas emissions.

Alternative 3. Codification of the commercial fishing prohibition and the Monument boundary, and sustainable management of non-commercial fishing using permits and

logbooks in the Monument is not expected to result in an increase in the amount of fishing in the Monument. Emissions resulting from the proposed action are expected to have negligible potential effects on climate change. In addition, the proposed action is not expected to affect the vulnerability of ecosystems, communities, or marine resources, including target, non-target, and protected species, when considered together with the potential impacts of climate change. Moreover, the requirement for permits and logbooks would allow fishery scientists and managers to monitor fishing in order to detect any impacts of climate change on MUS stocks.

#### 4.3.8 Cumulative Impacts – Rose Atoll

Alternative 1. The low level of impacts to the environment that are occurring under the No-action Alternative would not interact with other activities that affect the same areas or species that would be harvested. More detail about other activities and impacts on the proposed management of non-commercial fishing is provided in Table 10 below.

Alternative 2. Codification of the commercial fishing prohibition and the Monument boundary would not result in a change to fishing; therefore, there would be no change to the lack of cumulative impacts described in the No-action Alternative.

Alternative 3. Codification of the commercial fishing prohibition and the Monument boundary, and sustainable management of non-commercial fishing in the Monument would not result in a large amount of fishing in the Monument, and harvests would continue to be sustainable. Because of the low level of fishing, the requirement for permits and logbooks, and a prohibition on mixed commercial and non-commercial fishing on the same trip which would discourage commercial-level harvests from the Monument, and because none of the target stocks would be adversely affected even when other fishing impacts on those stocks are considered, this alternative would not combine with other activities to result in adverse environmental effects.

## 4.4 Consideration of Other Environmental Impacts

#### 4.4.1 Impacts to Public Health and Safety (All Monument Areas)

Alternative 1 and 2.There are no public health and safety issues associated with the low level of non-commercial fishing in any Monument.

Alternative 3. Under the preferred alternative, non-commercial fishing in the Monuments would require a permit and logbooks; and would be prohibited from fishing from 0-12nm around the PRI and Rose Atoll. None of the requirements being established would result in adverse impacts to public health and safety. The long distances to the Monument waters and the expense involved in traveling to remote areas and back are expected to limit the number of permits that are sought. The permit system is not expected to result in a race to fish because of the low level of interest in making the journey to the Monuments, and because the fishermen that are likely to venture to the Monuments already likely have experience with undertaking long voyages.

### 4.4.2 Cumulative Impacts

A cumulative effects analysis is required by the CEQ (40 CFR 1508.7) to evaluate the total effects of past, present, and reasonably foreseeable actions that affect the same resources or areas. A summary of these actions is found in Table 10 below.

Table 10. Table of past, present and reasonably foreseeable actions in the Monuments.

| Physical Environment or Management |
|---|
| *Past and Present Management Actions*<br>-Designation of EFH and HAPC and requirement for ongoing consultations to ensure activities do not adversely affect these designated areas.<br>- Conclusion by the Western Pacific Fishery Management Council that no western Pacific fishery adversely affects EFH or HAPC (WPFMC 2007)<br>- 2009 – Designation of Monuments through Presidential Proclamation – area closed to commercial fishing and requires legal permission to access and extract resources.<br>-2012 - addition of Rose Atoll MNM to the American Samoa National Marine Sanctuary.<br>*Reasonably Foreseeable Actions*<br>-Monument Management Plans for Rose Atoll, PRI, and the Marianas Trench Monuments.<br>-Continued authorization of low level of fishing around the PRI by the USFWS.<br>-Review of the proposed no-take zone by the Council in 3 years. |
| Biological Environment |
| *Past and Present Management Actions*<br>-2011 and onward. Establishment of Annual Catch Limits and Accountability Measures for coral reef ecosystem management unit species (MUS); bottomfish MUS, crustacean MUS, and precious coral MUS in western Pacific fisheries.<br>-2008. Establishment of quotas for bigeye tuna in the western Pacific fisheries.<br>-Regulations on marine waste disposal.<br>-ESA listing of all 5 species of sea turtles in the U.S.<br>-Establishment of 9 loggerhead DPSs and endangered listing for North Pacific Ocean and South Pacific Ocean DPS.<br>-Review under ESA and authorization of incidental take in fisheries including troll fisheries of the western Pacific region, and review and authorization of the CRE, BF, and CRUST fisheries of the CNMI and American Samoa.<br>- Establishment of 30 nm longline fishing prohibited area around Commonwealth of Northern Mariana Islands.<br>-ESA and MMPA permitting and review of actions.<br>- False Killer Whale Take Reduction Plan for longline vessels operating under the Pelagics FEP - Status review of global humpback whale population<br><br>*Reasonably Foreseeable Actions*<br>-Potential listing of certain corals in the western Pacific; and, if listed, potential designation of critical habitat.<br>-Continued NMFS monitoring of sea turtles, coral reef species, and fish stocks and research<br>-U.S. National Plan of Action and Seabird Conservation Plan for the Pacific Region to reduce incidental take in fisheries<br>-Reconsideration of the proposed 0-12 nm no-take zone around Rose Atoll by the Council in three years.<br>- Section 113 CFAA authorization allowing U.S. Participating Territories to the WCPFC to enter into arrangements with qualifying U.S. longline vessels for the purpose of assigning HMS quota |

- Establishment of a large vessel prohibited area within portions of the EEZ around Guam and the Commonwealth of the Northern Mariana Islands
- Renegotiated South Pacific Tuna Treaty providing continued access to 40 U.S. licensed purse seine vessels to foreign (non-U.S.) EEZs.

*Physical Resources and Management Actions*

Under the preferred alternative, the low level of non-commercial troll fishing in the pelagic waters beyond 12nm from shore in Rose Atoll and the PRI and the low amount of non-commercial coral reef, crustacean and bottomfish fishing that would occur in the Islands Unit would not have an adverse effect on EFH or HAPC. None of the western Pacific fisheries has an adverse effect on EFH or HAPC and the activities that would occur in the Monuments under the preferred alternative are no different from the existing fisheries.

If the preferred alternative is selected, the Monument plans are expected to incorporate the provisions of the non-commercial fishing program in their management plans.

If the preferred alternative is implemented, the Council will review the no-take zone around Rose Atoll in three years. Allowing fishing beyond 12 nm from shore in the Rose Atoll Monument would not have large impacts to resources that would affect the Council's future decision regarding whether or not to change the no-take zone. The Council's reconsideration of the no-take zone would not interact with the impacts of the preferred alternative in a way that would be large and adverse. If the Council were to change the no-take zone, a separate environmental analysis would be done at the time a proposal is available.

Allowing a low level of non-commercial troll fishing under permits from 12 nm to the extent of the Monument around the PRI Monument units would not interact with fishing that is ongoing or that could be allowed by the USFWS because both amounts of fishing are likely to be very low with respect to the biomass that could be sustainably harvested.

*Biological Environment*

The proposal to allow non-commercial fishing around the Rose Atoll, PRI Monuments and the Marianas Trench Islands Unit would not affect CNMI or Guam or American Samoa demersal fisheries which are operating Annual Catch Limits. The low amount of catch that is expected would be considered in annual reviews of the fisheries with respect to progress toward ACLs, but information about the source of the catch would be available to fishery scientists and managers and ACLs could be adjusted if necessary, to allow for informed consideration of new sources of catch data. The low level of catch from the Islands Unit is not expected to result in an ACL being exceeded in Guam or the CNMI.

The limited amount of troll fishing that could occur in all of the Monuments is not expected to affect other fisheries that target bigeye tuna. This is because troll fishers do

not usually harvest bigeye tuna; and, if bigeye tuna were to be caught, it would be in such low amounts that it would not adversely affect bigeye tuna stocks such that longline bigeye tuna quotas in Hawaii or the territories are likely to be lowered.

The recent listing of the loggerhead North Pacific and South Pacific distinct population segments was considered in this EA. The low level of fishing in the Monuments is not expected to adversely affect loggerheads because of their low levels in the Monuments and because none of the fisheries are likely to result in interactions or mortalities with loggerheads.

NMFS is undertaking a review of certain corals to evaluate whether listing as endangered or threatened is warranted. The proposed no-take marine zones around the PRI and Rose Monuments would continue existing protections of corals. The low level of non-commercial fishing in the Islands Unit is not expected to degrade coral reefs because vessels and people would avoid encountering corals and the CNMI government prohibits destruction or harvest of corals.

The low level of fishing in the Monuments would not adversely affect ongoing coral reef or other surveys because of the limited number of trips that are expected, and because fishing was already occurring in these areas without impacting research cruises.

The low level of fishing in the Monuments is not expected to have an adverse effect on seabirds because troll fishing does not usually result in seabird interactions.

Allowing a low level of troll fishing from beyond 12 nm from shore in the Rose Atoll Monument and establishing a no-take zone from 0-12 nm would not affect the environment such that it would have an adverse effect on the Council's reconsideration of the 0-12nm closed area in 3 years.

Finally, the preferred alternative to establish no-take areas in the PRI and at Rose Atoll and to allow a low level of non-commercial fishing in the Monuments would not impact future decisions with regards to establishing a large vessel prohibited areas within the EEZ around Guam or the CNMI because the Monument Proclamations already prohibit commercial fishing and the low level of harvest and vessel activity that would occur as a result of the proposed management action being implemented, would be so low, it would not change the impacts of purse seiners or longliners on pelagic stocks.

Table 11. Potential environmental effects of the alternatives. (Table 11a: Marianas Trench Marine National Monument, Islands Unit; Table 11b: Pacific Remote Islands Marine National Monument; and Table 11c: Rose Atoll Marine National Monument).

| Table 11a. Potential environmental effects of the alternatives in the Marianas Trench Marine National Monument, Islands Unit. | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| Likely level, type and area of fishing: | Proclamation 8335 prohibits commercial fishing in the Islands Unit.<br><br>Because of the far distance from populated islands, only a limited amount of non-commercial troll and bottomfish fishing using pole and line; and crustacean and coral reef ecosystem fishing using hand harvest and spear fishing may be occurring. While precise data is not available, based on historical accounts, an average of 3.8 trips may occur annually.<br><br>Commercial fishing may occur in waters outside of the Islands Unit on the same trip as a non-commercial fishing trip in the Islands Unit. | Regulations would prohibit commercial fishing in the Islands Unit.<br><br>For non-commercial fishing, no change. | Regulations would prohibit commercial fishing in the Islands Unit.<br><br>A low level of permitted non-commercial fishing may occur, using the same gears presently being used.<br><br>The prohibition on mixing a Monument non-commercial fishing trip and a commercial fishing trip is expected to reduce interest in a fishing permit; however, customary exchange would be permitted which would help fishermen to partially recoup trip costs and would allow for the continuation of culturally important traditions of sharing fish caught in the Islands Unit. |

| Table 11a. Potential environmental effects of the alternatives in the Marianas Trench Marine National Monument, Islands Unit. | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| Target, non-target, bycatch stocks: | The low level of fishing that may be occurring is not likely having an adverse effect on any stocks and is considered sustainable. Pelagic MUS are considered highly migratory species and are subject to management measures agreed to under international organizations such as the Western and Central Pacific Fishery Commission and will continue to be monitored by fishery scientists and managers.<br><br>All reported harvests of bottomfish, coral reef ecosystem species, and crustaceans are counted against the CNMI annual catch limits. | No change. | The preferred alternative is not expected to result in a large change to fishing effort, but fishing would require a permit and logbooks to facilitate monitoring.<br><br>The prohibition on mixing non-commercial and commercial trips may discourage interest in non-commercial permits.<br><br>NMFS estimates issuing up to 10 permits a year. The low level of fishing that may occur is not expected to adversely affect fish stocks and fishing would be sustainable.<br><br>All reported harvests of demersal MUS would continue to be counted against the CNMI annual catch limits. Pelagic fish catches would continue to be subject to management measures agreed to under international organizations. |
| Protected species (seabirds, marine mammals, sea turtles): | The CNMI and Guam troll and handline fisheries, bottomfish, crustacean and coral reef ecosystem fisheries could interact with protected species, but the level of impact is expected to be | No change. | The low level of permitted non-commercial fishing that may occur would not increase the likelihood or severity of the low level of potential interactions with protected species. |

| Table 11a. Potential environmental effects of the alternatives in the Marianas Trench Marine National Monument, Islands Unit. | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| | very limited in intensity and number of interactions; the continuation of the existing low level of non-commercial fishing would not jeopardize the recovery or survival of any listed species. | | Logbooks would be required and would facilitate monitoring of interactions with protected species. |
| Fishery Participants and Fishing Communities: | Fishery participants are able to sell fish that they catch outside of the Monument on the same trip as a non-commercial Monument fishing trip. | No change. | The preferred alternative would allow customary exchange between fishermen and their communities. Commercial fishing could not occur on the same trip as an Islands Unit non-commercial trip, but that is not expected to reduce the amount of fish that fishermen catch in the Islands Unit and, therefore, that would be shared with the community. |
| Marine Habitat and Biodiversity: | The CNMI and Guam troll and handline fisheries, bottomfish, crustacean and coral reef ecosystem fisheries are not known to have adverse effects marine habitats or biodiversity. | No change. | The low level of permitted non-commercial fishing that may occur is not expected to have an adverse effect on marine habitats or biodiversity. |
| Administration, Enforcement, and Compliance: | No cost for fishery management administration.<br><br>Enforcement: Enforcement of the commercial fishing prohibition would be under the Proclamation. | Cost to Government: Administrative costs to change the regulations and enforce laws.<br><br>Cost to the Council: | Cost to Government: Administrative costs to change the regulations and manage a low level of permit requests and logbooks. Some cost to develop compliance guides and implement outreach to inform fishermen of new regulations. |

| Table 11a. Potential environmental effects of the alternatives in the Marianas Trench Marine National Monument, Islands Unit. | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| | Enforcement of existing MSFCMA regulations would continue.<br><br>Cost to fishermen: No new costs. Fishermen would still need applicable Mariana FEP permit to non-commercially fish depending on target species. | Administrative costs to amend the FEPs.<br><br>Enforcement: Enhanced compared with the No-action Alternative because fisheries enforcement would be under MSFCMA.<br><br>Compliance: The regulations would be clear in terms of the prohibition on commercial fishing.<br><br>Cost to fishermen: No change. | Cost to the Council: Administrative costs to amend the FEPs and evaluate fishery information. Some cost to implement outreach to inform fishermen of new fishery requirements.<br><br>Enforcement: Enhanced compared with the No-Action Alternative because fisheries enforcement would be under the MSFCMA.<br><br>Compliance: Fishermen would need to obtain a permit and report catch, and could not mix a non-commercial fishing trip in the Islands Unit with commercial fishing outside the Islands Unit. A Compliance Guide and outreach would be used to help inform fishermen of the regulations.<br><br>Cost to fishermen: Potential new cost to obtain a permit to non-commercially fish in the Islands Unit and some time cost to fill out and submit logbooks. |
| Climate Change: | Although climate change is known to affect marine resources and ecosystems, impacts of | No change. | Under the preferred alternative, managers and scientist may be able to monitor climate change impacts on the |

| Table 11a. Potential environmental effects of the alternatives in the Marianas Trench Marine National Monument, Islands Unit. | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| | climate change on marine resources, human communities and ecosystems at the regional level have not been quantified. The current low level of non-commercial fishing is not impacting global climate change. | | sustainability of fishing because the requirement for permits and logbooks would improve the ability to monitor fish harvests.<br><br>The preferred alternative is not expected to result in an increase in greenhouse gas emissions above the levels that may currently be occurring, nor is the proposed action expected to affect the vulnerability of any marine resource, ecosystem, or human community to the potential effects of climate change. |
| Cumulative Impacts: | None identified. | No change. | The low level of permitted non-commercial fishing that may occur inside the Islands Unit is not expected to interact with fishing activities outside the Islands Unit, or other activities that affect the same target resources.<br><br>No cumulative effects were found when the preferred alternative was considered in light of other past, present and reasonably forseeable actions. |

| Table 11b. Potential environmental effects of the alternatives in the PRI Marine National Monument | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| Likely level, type and area of fishing: | Proclamation 8336 prohibits commercial fishing in the Monument.<br><br>A limited amount of non-commercial fishing authorized by the USFWS occurs in Monument waters around Palmyra Atoll and Wake Island<br><br>Because of the far distance from populated islands, limited non-commercial fishing, including recreational charter fishing by Hawaii pelagic troll and handline fleet and private sailboats, may be occurring. While detailed information is not available, the remote location of the islands that comprise the PRI makes it unlikely there is a substantial amount of non-commercial fishing currently occurring.<br><br>Commercial fishing may occur in waters outside of the Monument | Regulations would prohibit commercial fishing in the Monument.<br><br>For non-commercial fishing, no change. | Regulations would prohibit commercial fishing in the Monument.<br><br>Regulations would also prohibit non-commercial fishing within 12 nm around the PRI, subject to USFWS' authorization of fishing, in consultation with NMFS and the Council.<br><br>A low level of permitted non-commercial fishing would likely occur beyond 12 nm from shore in the Monument, using the same gear presently being used --most likely troll gear.<br><br>The prohibition on mixing a Monument non-commercial fishing trip and a commercial fishing trip outside of the Monument is expected to reduce interest in fishing in the Monument. |

| Table 11b. Potential environmental effects of the alternatives in the PRI Marine National Monument | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| | on the same trip as a non-commercial fishing trip in the Monument. | | |
| Target, non-target, bycatch stocks: | The low level of non-commercial fishing that may be occurring is not likely to have an adverse effect on any fish stocks and is considered sustainable. Pelagic MUS are considered highly migratory species and are subject to management measures agreed to under international organizations such as the Western and Central Pacific Fishery Commission and will continue to be monitored by fishery scientists and managers. | No change. | The preferred alternative is not expected to result in a large change to fishing effort, but fishing would require a permit and logbooks to facilitate monitoring.<br><br>The prohibition on mixing non-commercial Monument fishing trips and commercial fishing trips may discourage interest in non-commercial permits.<br><br>Because habitat that may support non-pelagic fisheries occurs almost exclusively within 12 nm of shore, the prohibition on fishing within 12 nm is expected to preclude all fishing except trolling for pelagic species, and fishing as authorized by the USFWS, in consultation with NMFS and the Council.<br><br>Pelagic fish catches would continue to be subject to management measures agreed to under international organizations |

| Table 11b. Potential environmental effects of the alternatives in the PRI Marine National Monument | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| | | | NMFS estimates issuing up to 15 permits a year for pelagic fishing in the PRI. The low level of non-commercial pelagic trolling fishing that may occur beyond 12 nm from shore is not expected to adversely affect pelagic fish stocks and would be sustainable. |
| Protected species (seabirds, marine mammals, sea turtles): | Non-commercial troll fishing in the Monument areas could interact with protected species, but the level of impact is expected to be very limited in terms of intensity and number of interactions. The continuation of the existing low level of non-commercial fishing would not jeopardize the recovery or survival of any listed species. | No change. | The prohibition on fishing by NMFS and Council authorized fisheries from 0-12 nm from shore is expected to have a beneficial impact on protected species.<br><br>The low level of permitted non-commercial fishing that may occur beyond 12 nm from shore would not increase the likelihood or severity of the low level of potential interactions with protected species.<br><br>Logbooks would be required and would facilitate monitoring of interactions with protected species. |

| Table 11b. Potential environmental effects of the alternatives in the PRI Marine National Monument | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| Fishery Participants: | Fishery participants are able to sell fish that they catch outside of the Monument on the same trip as a non-commercial Monument fishing trip. The sale of fish caught outside of the Monument could help pay for some of the costs of fishing trip. As the fishing vessels are most likely to originate from Hawaii, some fish caught on a Monument fishing trip could be available to the Hawaii fishing community. | No change. | The preferred alternative would prohibit the mixing of a non-commercial Monument fishing trip and a commercial fishing trip.<br><br>Cultural exchange would not be permitted and would prevent fishermen from recouping costs of the fishing trip; however, recreational charter fishing operations could build the cost of the trip into charter fees. |
| Marine Habitat and Biodiversity: | Fishing by the western Pacific troll and handline fleet is not known to have large adverse effects marine habitats or biodiversity. | No change. | The prohibition on fishing from 0-12 nm around the PRI Units is expected to have a beneficial impact on marine habitats and biodiversity by preventing fisheries harvests, except harvests authorized by the USFWS in consultation with NMFS and the Council.<br>The very low level of permitted non-commercial pelagic troll fishing that may occur beyond 12nm from shore in the PRI Monument is not expected to have an adverse effect on marine habitats or biodiversity. |

| Table 11b. Potential environmental effects of the alternatives in the PRI Marine National Monument | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| Administration, Enforcement, and Compliance: | No cost for fishery management administration.<br><br>Enforcement: Enforcement of the commercial fishing prohibition would be under the Proclamation. Enforcement of existing MSFCMA regulations would continue.<br><br>Cost to fishermen: No new costs. Fishermen would still need applicable PRIA FEP permit or Pelagic FEP permit to non-commercially fish depending on target species. | Cost to Government: Administrative costs to change the regulations and enforce laws.<br><br>Cost to the Council: Administrative costs to amend the FEPs.<br><br>Enforcement: Enhanced compared with the No-action Alternative because fisheries enforcement would be under the MSFCMA.<br><br>Compliance: The regulations would be clear in terms of the prohibition on commercial fishing.<br><br>Cost to fishermen: No change. | Cost to Government: Administrative costs to change the regulations and manage a low level of permit requests and logbooks. Some cost to develop compliance guides and implement outreach to inform fishermen of new regulations.<br><br>Cost to the Council: Administrative costs to amend the FEPs and evaluate fishery information. Some costs to implement outreach to inform fishermen of new fishery requirements.<br><br>Enforcement: Enhanced compared with the No-Action Alternative because fisheries enforcement would be under the MSFCMA.<br><br>Compliance: Fishermen would need to obtain a permit and report catch, and could not mix a non-commercial fishing trip in the Monument with commercial fishing outside the Monument |

| Table 11b. Potential environmental effects of the alternatives in the PRI Marine National Monument | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| | | | There would be a need to inform fishermen of the regulations.<br><br>Cost to fishermen: Potential new cost to obtain a recreational charter permit in the Monument and some time cost to fill out and submit logbooks. |
| Climate Change: | Although climate change is known to affect marine resources and ecosystems, impacts of climate change on marine resources, human communities and ecosystems at the regional level have not been quantified. The current low level of non-commercial fishing in the PRI is not impacting global climate change. | No change. | Under the preferred alternative, managers and scientist may be able to monitor climate change impacts on the sustainability of fishing through the review of logbooks.<br><br>The preferred alternative is not expected to result in an increase in greenhouse gas emissions above the levels that may currently be occurring, nor is the proposed action expected to affect the vulnerability of any marine resource, ecosystem, or human community to the potential effects of climate change. |
| Cumulative Impacts: | None identified. | No change. | No change.<br><br>The low level of permitted non-commercial fishing that may occur in the |

| Table 11b. Potential environmental effects of the alternatives in the PRI Marine National Monument | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| | | | Monument beyond 12 nm from shore is not expected to interact with fishing activities outside the Monument, or other activities that affect the same target resources to result in adverse impacts.<br><br>No cumulative effects were found when the preferred alternative was considered in light of other past, present and reasonably forseeable actions. |

| Table 11c. Potential environmental effects of the alternatives in the Rose Atoll Marine National Monument. | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| Likely level, type and area of fishing: | Proclamation 8337 prohibits commercial fishing in the Monument.<br><br>Because of the far distance from populated islands, the access restriction within 3 nm of Rose Atoll National Wildlife Refuge, and existing MSFCMA fishing prohibitions within the 0-50 fathom (0-300 feet) Rose Atoll no-take marine protected area, only a limited amount of non-commercial pelagic troll fishing may be occurring; but the amount is not known.<br><br>Commercial fishing may occur in waters outside of the Monument on the same trip as a non-commercial fishing trip in the Monument. | Regulations would prohibit commercial fishing in the Islands Unit.<br><br>For non-commercial fishing, no change. | Regulations would prohibit commercial fishing in the Islands Unit and all fishing within 12 nm around Rose Atoll.<br><br>A low level of permitted non-commercial fishing may occur beyond 12 nm from shore using the same gears presently being used; most likely troll gear.<br><br>The prohibition on mixing a non-commercial Monument fishing trip and a commercial fishing trip outside of the Monument is expected to reduce interest in a fishing permit. Customary exchange would be permitted which would help fishermen to partially recoup trip costs and would allow for the continuation of culturally important traditions of sharing fish caught outside 12 nm around Rose Atoll. |

| Table 11c. Potential environmental effects of the alternatives in the Rose Atoll Marine National Monument. | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| Target, non-target, bycatch stocks: | The low level of fishing that may be occurring is not likely having an adverse effect on any stocks and is considered sustainable. All pelagic catches are subject to management measures agreed to under international organizations such as the Western and Central Pacific Fishery Commission and will continue to be monitored by fishery scientists and managers. | No change. | The preferred alternative is not expected to result in a large change to fishing effort, but fishing would require a permit and logbooks to facilitate monitoring.<br><br>The prohibition on mixing non-commercial and commercial trips may discourage interest in non-commercial permits.<br><br>Because habitat that may support non-pelagic fisheries occurs exclusively within 12 nm of Rose Atoll, the prohibition on fishing within 12 nm from shore is expected to preclude all fishing except trolling for pelagic species.<br><br>NMFS estimates issuing up to 10 permits a year. The low level of pelagic trolling that may occur beyond 12 nm from shore is not expected to adversely affect fish stocks and would be sustainable. |

| Table 11c. Potential environmental effects of the alternatives in the Rose Atoll Marine National Monument. | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| | | | Pelagic fish catches would continue to be subject to management measures agreed to under international organizations. |
| Protected species (seabirds, marine mammals, sea turtles): | Non-commercial troll fishing in the Monument could interact with protected species, but the level of impact is expected to be very limited in terms of intensity and number of interactions. The continuation of the existing low level of non-commercial fishing would not jeopardize the recovery or survival of any listed species. | No change. | The prohibition on fishing from 0-12 nm from shore is expected to have a beneficial impact on protected species.<br><br>The low level of permitted non-commercial pelagic troll fishing that may occur beyond 12 nm from shore is not expected to increase the likelihood or severity of the low level of potential interactions with protected species.<br><br>Logbooks would be required and would facilitate monitoring of interactions with protected species. |
| Fishery Participants and Fishing Communities: | Fishery participants are able to sell fish that they catch outside of the Monument on the same trip as | No change. | The preferred alternative would allow the continuation of customary exchange between fishermen and their |

| Table 11c. Potential environmental effects of the alternatives in the Rose Atoll Marine National Monument. | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| | a non-commercial Monument fishing trip. The sale of fish caught outside of the Monument could help pay for some of the costs of fishing trip. Some fish caught on a Monument fishing trip could be available to the American Samoa fishing community. | | communities. Commercial fishing could not occur on the same trip as a Monument non-commercial fishing trip, but that is not expected to reduce the amount of fish that fishermen may catch in the Monument, and therefore, that would be shared with the community. |
| Marine Habitat and Biodiversity: | Fishing by the western Pacific troll and handline fleet is not known to have large adverse effects marine habitats or biodiversity. | No change. | The prohibition on fishing from 0-12 nm is expected to have a beneficial impact on marine habitats and biodiversity by preventing fisheries harvests.<br><br>The low level of permitted non-commercial pelagic troll fishing that may occur beyond 12nm from shore is not expected to have an adverse effect on marine habitats or biodiversity. |
| Administration, Enforcement, and Compliance: | No cost for fishery management administration.<br><br>Enforcement: Enforcement of the commercial fishing prohibition | Cost to Government: Administrative costs to change the regulations and enforce laws.<br><br>Cost to the Council: | Cost to Government: Administrative costs to change the regulations and manage a low level of permit requests and logbooks. Some cost to develop compliance guides and implement |

| Table 11c. Potential environmental effects of the alternatives in the Rose Atoll Marine National Monument. | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| | would be under the Proclamation. Enforcement of existing MSFCMA regulations would continue.<br><br>Cost to fishermen: No new costs. Fishermen would still need applicable American Samoa FEP permit to non-commercially fish depending on target species. | Administrative costs to amend the FEPs.<br><br>Enforcement: Enhanced compared with the No-action Alternative because fisheries enforcement would be under the MSFCMA.<br><br>Compliance: The regulations would be clear in terms of the prohibition on commercial fishing.<br><br>Cost to fishermen: No change. | outreach to inform fishermen of new regulations.<br><br>Cost to the Council: Administrative costs to amend the FEPs and evaluate fishery information. Some costs to implement outreach to inform fishermen of new fishery requirements..<br><br>Enforcement: Enhanced compared with the No-Action Alternative because fisheries enforcement would be under the MSFCMA.<br><br>Compliance: Fishermen would need to obtain a permit and report catch, and could not mix a non-commercial fishing trip in the Monument with commercial fishing outside the Monument.<br><br>Cost to fishermen: Potential new cost to obtain a permit to non-commercially fish in the Monument |

| Table 11c. Potential environmental effects of the alternatives in the Rose Atoll Marine National Monument. | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| | | | and some time cost to fill out and submit logbooks. |
| Climate Change: | Although climate change is known to affect marine resources and ecosystems, impacts of climate change on marine resources, human communities and ecosystems at the regional level have not been quantified. The current low level of non-commercial fishing in Rose Atoll is not impacting global climate change. | No change. | Under the preferred alternative, managers and scientist may be able to monitor climate change impacts on the sustainability of fishing through the review of logbooks.<br><br>The preferred alternative is not expected to result in an increase in greenhouse gas emissions above the levels that may currently be occurring, nor is the proposed action expected to affect the vulnerability of any marine resource, ecosystem, or human community to the potential effects of climate change. |
| Cumulative Impacts: | None identified | No change. | No change. The low level of permitted non-commercial fishing that may occur in the Monument beyond 12 nm from shore is not expected to interact with fishing activities outside the Monument, or other activities that affect the same target resources to |

| Table 11c. Potential environmental effects of the alternatives in the Rose Atoll Marine National Monument. | | | |
|---|---|---|---|
| Alternative:<br><br>Resource or Topic: | Alt. 1. No Action. Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments. | Alt. 2. Amend the FEPs and promulgate regulations to codify Monument boundaries and the prohibition on commercial fishing. | Alt. 3. Amend the FEPs and promulgate regulations to codify Monument boundaries, the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing **(Preferred).** |
| | | | result in large adverse impacts.<br><br>No cumulative effects were found when the preferred alternative was considered in light of other past, present and reasonably forseeable actions. |

# 5 Consistency with Applicable Laws

## 5.1 Magnuson-Stevens Fishery Conservation and Management Act

National Standard 1 states that conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.

The proposed action is consistent with NS1 as it would promote sustainable, non-commercial fisheries within the Monuments, for which stocks are healthy and at low-risk of overfishing. Implementing permit and reporting for all non-commercial and recreational charter fishing in the Monuments would allow managers to monitor fishing participation and fishery harvests. Monument catches (landings and discards) could be considered in the development of future annual catch limits for fisheries that requirement them. Catches would be reviewed annually, to see if an ACL was exceeded; and if so, additional conservation and management measures could be implemented in accordance with accountability measures for the Marianas and American Samoa. The low amount of fishing that is expected to occur in the Monuments has little chance of resulting in overfishing

National Standard 2 states that conservation and management measures shall be based upon the best scientific information available.

The proposed action is consistent with NS2 because the best scientific information available regarding the status of stocks and fishery participants operating within the Monuments as well as fisheries data and community dependence information was used in this analysis.

National Standard 3 states that, to the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.

The proposed action is consistent with NS3 as no changes or impacts are expected to how fisheries stocks that occur in the Monuments shall be managed as a unit throughout their range.

National Standard 4 states that conservation and management measures shall not discriminate between residents of different States. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

This action allocates fishing permit privileges in the Rose Atoll Monument to fishermen of the American Samoa fishing community and fishing permit privileges in the Marianas Trench Monuments to fishermen of the Guam, and the CNMI fishing communities. Proposed permit eligibility requirements for a non-commercial and/or recreational charter fishing permit requires applicants to reside, or if a business, be legally established in American Samoa (for a Rose Atoll Monument fishing permit) or Guam or CNMI (for a Marianas Trench Monument fishing permit).

This recommendation is consistent with the intent of the Proclamations to allow for non-commercial fishing and preserve traditional indigenous fishing practices in the respective Monuments. Fishing opportunities exist for non-residents, as guests or clients of the permit holders. There is no resident requirement to be eligible for a non-commercial or charter recreational permit in the PRI Monument.

The requirement for obtaining permits and submitting logbooks promotes conservation within the Monuments by allowing managers to review and monitoring fishing, and to make sure that commercial level fishing is not occurring. The remote location of the Monument is likely to limit interest in fishing in the Monuments to those particularly motivated to make the long and expensive trip to the remote areas. Although there are no limits on individual participation, it is not likely that any particular individual, corporation, or other entity would acquire an excessive share of such privileges. The proposed permit program would not preclude managers from implementing other changes in the future, if necessary, to ensure that opportunities for access remain equitable among interested participants.

National Standard 5 states that conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.

The proposed action provides opportunities for non-commercial fishing in the three Monument areas, consistent with the Proclamations. The proposal would ensure fishing would be sustainable, and provide opportunities for continued traditional indigenous, recreational and sustenance fishing; thus, economic allocation is not the sole purpose of the proposed action.

National Standard 6 states that conservation and management action shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

The proposed action is consistent with NS6 as the proposed action would allow a very low level of non-commercial fishing to occur with permit and logbook reporting in Monument waters. At Rose Atoll and the PRI, there would be no-take from 0-12 nm. Because benthic habitat features that may support non-pelagic fisheries occurs almost exclusively within 12 nm at Rose Atoll and the islands that comprise the PRI, the prohibition on fishing within 12 nm is expected to preclude all fishing except trolling for pelagic species outside of 12 nm to the extent of the Monument boundaries. The USFWS may continue to allow a very low level of non-commercial fishing around the PRI Units, primarily at Wake Islands and Palmyra Atoll, in consultation with NMFS and the Council. The very low level of fishing activity in these remote areas is not expected to have large effects on target or non-target species. Permits would allow NMFS to include provisions to further regulate non-commercial harvest if necessary to address variations in fishery resources.

In addition, other agencies are developing comprehensive management plans for each Monument that may inform future fisheries management decisions. The Council will review the Rose Atoll no-take zone in three years in order to assess impacts to Manua Islands fishermen. The Council will continue to monitor the status of the non-commercial and recreational charter fishing

activity in each area and NMFS will continue to monitor catches with respect to ACLs and the fishing effort for future adaptive management.

National Standard 7 states that conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

The proposed action is consistent with NS7 because there is currently no permit or reporting requirements specifically for non-commercial or recreational fishing in the Monuments.

National Standard 8 states that conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

The proposed action is consistent with NS8 as it would define activities that would provide for sustained participation by members of fishing communities in sustainable non-commercial and recreational charter fisheries within the Monuments. This is especially important for the indigenous fishery participants and fishing communities of American Samoa, Guam, and the Northern Mariana Islands. The Monuments were created in areas that were and still are important to indigenous peoples of these areas and therefore, maintaining access to these areas for, sustenance, subsistence, traditional, indigenous, and recreational fishing is important for social, cultural, and religious reasons while promoting sustained participation in fisheries. The opportunity for non-commercial permit holders to recoup some costs related to the expense of traveling to and fishing in the Monuments and returning, helps to reduce adverse economic impacts on community members and allows community traditions, such as customary exchange and voluntary sharing of fish with community members to continue.

National Standard 9 states that conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided minimize the mortality of such bycatch.

The proposed action is consistent with NS9 because it would maintain the conservation and management measures of the FEPs with respect to bycatch minimization. The proposed action would not authorize new fisheries or gear types not currently allowed. Reporting of bycatch in logbooks, if any, would allow managers to address any issues that are identified.

National Standard 10 states that conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

The proposed action is consistent with NS10 because the action would not encourage unsafe practices for fishermen traveling to or fishing in the Monument areas. The permit program would not promote a race to fish because the long distances and costs of traveling to the Monuments to fish are expected to limit interest in permits to fish in the Monuments. There is nothing about the permit program that would cause fishermen to attempt the trip during those seasons in which bad weather is prevalent.

## 5.2 Coastal Zone Management Act

The Coastal Zone Management Act requires a determination that a recommended management measure has no effect on the land, water uses, or natural resources of the coastal zone or is consistent to the maximum extent practicable with an affected state's enforceable coastal zone management program. NMFS determined that this action is consistent to the maximum extent practicable with the enforceable policies of the approved coastal zone management programs of Guam, the Commonwealth of the Northern Mariana Islands, and American Samoa. NMFS submitted this determination on September 13, 2012, for reviews by the appropriate state agencies under section 307 of the CZMA. NMFS received no responses, and infers consistency.

## 5.3 Endangered Species Act

Table 12 summarizes the existing ESA Section 7 consultations and determinations for fisheries managed under western Pacific FEPs that could potentially occur in the monument areas.

Table 12. Status of ESA Consultations for Western Pacific FEP Fisheries of American Samoa, Guam, Hawaii, the CNMI, and PRIA that could potentially occur in the monument areas.

| Fishery | ESA Consultation | NMFS Determination |
|---|---|---|
| **American Samoa (Rose Atoll)** | | |
| Bottomfish | March 8, 2002, Biological Opinion | Not likely to adversely affect any ESA-listed species or critical habitat |
| Coral reef | March 7, 2002, Letter of Concurrence | Not likely to adversely affect any ESA-listed species or critical habitat |
| Crustaceans | September 28, 2007, Letter of Concurrence | Not likely to adversely affect any ESA-listed species or critical habitat |
| Precious corals | December 20, 2000, Letter of Concurrence | Not likely to adversely affect any ESA-listed species or critical habitat |
| **Mariana Archipelago (Marianas Trench)** | | |
| CNMI deep bottomfish | June 3, 2008, Letter of Concurrence | Not likely to adversely affect any ESA-listed species or critical habitat |
| CNMI shallow bottomfish | June 3, 2008, Letter of Concurrence | Not likely to adversely affect any ESA-listed species or critical habitat |
| CNMI coral reef | June 3, 2008, Letter of Concurrence | Not likely to adversely affect any ESA-listed species or critical habitat |
| CNMI precious corals | June 3, 2008, Letter of Concurrence | Not likely to adversely affect any ESA-listed species or critical habitat |
| CNMI crustaceans | September 28, 2007, Letter of Concurrence | Not likely to adversely affect any ESA-listed species or critical habitat |
| Guam deep bottomfish | June 3, 2008, Letter of Concurrence | Not likely to adversely affect any ESA-listed species or critical habitat |
| Guam shallow bottomfish | June 3, 2008, Letter of Concurrence | Not likely to adversely affect any ESA-listed species or critical habitat |
| Guam coral reef | March 7, 2002, Letter of Concurrence | Not likely to adversely affect any ESA-listed species or critical habitat |
| Guam precious corals | December 20, 2000, Letter of Concurrence | Not likely to adversely affect any ESA-listed species or critical habitat |

| Fishery | ESA Consultation | NMFS Determination |
|---|---|---|
| Guam crustaceans | September 28, 2007, Letter of Concurrence | Not likely to adversely affect any ESA-listed species or critical habitat |
| **Western Pacific Pelagic** | | |
| American Samoa longline (Rose Atoll only) | September 16, 2010, Biological Opinion | Not likely to jeopardize the continued existence or recovery of four species of sea turtles; Not likely to adversely affect any other ESA-listed species or critical habitat |
| Western Pacific troll and handline (All Monuments, including PRIA) | September 1, 2009, Biological Opinion | Not likely to adversely affect any ESA-listed species or critical habitat |
| Western Pacific squid jig (All Monuments, including PRIA) | July 16, 2008, Letter of Concurrence | Not likely to adversely affect any ESA-listed species or critical habitat |

## 5.4 Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA) prohibits with limited exceptions, the “take” of all marine mammal species in U.S. waters and defines take as “to harass, hunt, capture, or kill any marine mammal.” However, NMFS has issued regulations pursuant to Section 118 of the MMPA that authorizes the incidental take of marine mammals during commercial fishing operations, provided such takings would be of small numbers and have no more than a "negligible impact" on those marine mammal species not listed as depleted under the MMPA. Because incidental take of marine mammals is only applicable to commercial fishing, and commercial fishing is already prohibited within the monuments by the Proclamations, and any non-commercial or recreational fishing within the three monuments would be subject to the prohibitions of the MMPA (16 U.S.C. 1372 Sec. 102).

Within the Rose Atoll and Pacific Remote Islands Monuments, only pelagic trolling and handline fishing is likely to occur because the proposed action would prohibit all fishing within 12 nm around all emergent land, and benthic habitat features that may support fisheries for non-pelagic species, including bottomfish, crustaceans, precious corals and coral reef species are not likely to occur beyond 12 nm. In the Islands Unit of the Marianas Trench Monument, non-commercial fisheries that could occur include pelagic troll and handline, bottomfish, crustaceans, precious corals and coral reef fisheries.

Incidental hooking and entanglement in fishing gear are the greatest sources of potential interaction between marine mammals and fisheries. Collisions with fishing vessels and exposure to vessel wastes, discharges and noise may also potentially result in take of marine mammals. However, commercial fisheries for bottomfish, crustaceans, precious corals and coral reef species and pelagic trolling authorized under Council’s FEPs are not known to cause in mortality or serious injuries of marine mammals. Since non-commercial fisheries that may occur in the Monuments would use similar, if not identical gear, but at less effort and frequency compared to commercial fisheries, potential impacts from non-commercial fishing activities is expected to be unlikely. Due to the distance of these Monuments from populated islands, the proposed action to

require permit and reporting of all non-commercial and recreational fishing in the monuments is not expected to increase the potential for hooking or entanglement of, or collisions with marine mammals nor are marine mammals expected to experience increased exposure to vessel.

## 5.5 Environmental Justice– Executive Order 12898

On February 11, 1994, President William Clinton issued Executive Order 12898 (E.O. 12898), "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." E.O. 12898 provides that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." E.O. 12898 also provides for agencies to collect, maintain, and analyze information on patterns of subsistence consumption of fish, vegetation, or wildlife.

Agencies are also to consider potential adverse effects on subsistence patterns of consumption and indicate the potential for disproportionately high and adverse human health or environmental effects on low-income populations, and minority populations.

There are no environmental justice communities in the PRI because, except for a few non-governmental organization employees at Palmyra Atoll and Wake Island, all the rest of the inhabitants are non-resident employees of the U.S. Government, contractors, or visitors.

The fishing communities of American Samoa, Guam, and the CNMI include many members of minority and low-income populations. Some residents of the Mariana Islands (CNMI and Guam) and American Samoa actively participate in subsistence uses of fishery resources in the EEZ around the Northern Mariana Islands, Guam, and American Samoa. In the past, residents of Guam, the CNMI and American Samoa traveled occasionally to the Monument areas to fish and return with fish for their communities.

NMFS evaluated the potential impacts of the alternatives in each Monument areas and did not find any of the alternatives would result in disproportionately high or adverse environmental impacts that could affect minority or low income populations. All of the alternatives (for management of fishing in the Rose Atoll and the Islands Unit) would allow residents and their guests to participate in traditional fisheries and share their catch with their communities. The proposed action, by specifically managing such non-commercial fishing, is expected to enhance opportunities for indigenous populations to participate in traditional subsistence fisheries, notwithstanding the designation of the Monuments.

## 5.6 National Environmental Policy Act

### 5.6.1 Overview of the EA

NOAA Administrative Order (NAO) 216-6, Environmental Review Procedures, requires all proposed agency actions be reviewed with respect to environmental consequences on the human environment in accordance with the National Environmental Policy Act (NEPA) and CEQ

regulations for implementing NEPA. This proposed amendment to four of the Council's FEPs has been written and organized to meet both the requirements of the Magnuson-Stevens Fisheries Conservation and Management Act and NEPA.

The EA contains a description of the proposed action, alternatives considered including those initially considered but rejected from further consideration, describes the potential impacts of NMFS implementing the non-discretionary fishery management measures recommended by the Council, and describes coordination with others and the public

The cover page provides information about the responsible official and contact information. It also provides information to readers interested in commenting on the EA. The purpose and need are described in Section 1. Development of alternatives, alternatives considered, and alternatives initially considered but rejected from detailed consideration are described in Section 2.0 Features of the alternatives are summarized in Tables 1a-1c, in Section 2. The Monuments' setting and affected environment including fisheries and resources are described in Section 3.0. The potential environmental effects of the alternatives are described in Section 4, which includes an evaluation of potential cumulative effects and potential climate change impacts. Section 5 includes consideration of Environmental Justice populations and environmental effects. Preparers and coordination with others are described below.

### 5.6.2 Public coordination

NMFS solicited public comment on the draft amendment during a 60-day public comment period. No comments were received on the environmental assessment. The comments resulted in minor corrections to the draft regulations.

### 5.6.3 Coordination with Others

NMFS and the Council developed the proposed action described in this EA in coordination with various federal and local government agencies represented on the Western Pacific Fishery Management Council. Specifically, as members of the Council, agencies that participated in the deliberations and development of the proposed management measures include:

- American Samoa Department of Marine and Wildlife Resources
- Guam Department of Agriculture, Division of Aquatic and Wildlife Resources
- Hawaii Department of Land and Natural Resources, Division of Aquatic Resources
- Northern Mariana Islands Department of Land and Natural Resources, Division of Fish and Wildlife
- Coastal Zone Management Programs of American Samoa, the CNMI, and Guam
- U.S. Coast Guard
- U.S. Fish and Wildlife Service
- U.S. Department of State

The draft document was also coordinated with NMFS Marine National Monument Program, NMFS Protected Resources Program, and the U.S. Fish and Wildlife Service.

### 5.6.4 Preparers

The following NMFS and Council staff prepared the environmental impact analysis for the proposed FEP amendments:

*Western Pacific Fishery Management Council staff:*
Eric Kingma, Enforcement/NEPA Coordinator

*NOAA Pacific Islands Regional Office staff*:
Phyllis Ha, Sustainable Fisheries, NEPA Specialist
Christopher Hawkins, Sustainable Fisheries, Social Scientist
Jarad Makaiau, Sustainable Fisheries, Fishery Policy Analyst
Michelle McGregor, Sustainable Fisheries, Economist
Toby Wood, Sustainable Fisheries, Fishery Policy Analyst

*Additional NMFS reviewers*
Heidi Hirsh, PIRO Monuments Program, Natural Resources Management Specialist
Ethan Brown, Former Sustainable Fisheries, Natural Resources Specialist (NEPA)
Brett Wiedoff, Sustainable Fisheries, Fishery Policy Analyst

## 5.7 Information Quality Act

To the extent practicable, the information in this amendment complies with the Information Quality Act and NOAA standards (NOAA Information Quality Guidelines, September 30, 2002) which recognize information quality is comprised of three elements: utility, integrity, and objectivity. Central to the preparation of this amendment is objectivity which consists of two distinct elements: presentation and substance. The presentation element includes whether disseminated information is presented in an accurate, clear, complete, and unbiased manner and in a proper context. The substance element involves a focus on ensuring accurate, reliable, and unbiased information. In a scientific, financial, or statistical context, the original and supporting data shall be generated and the analytic results shall be developed using sound statistical and research methods. At the same time, however, the Federal government has recognized that "information quality comes at a cost. In this context, agencies are required to weigh the costs and the benefits of higher information quality in the development of information, and the level of quality to which the information disseminated will be held" (OMB Guidelines, pp. 8452-8453).

One of the important potential costs in acquiring "perfect" information (which is never available) is the cost of delay in decision-making. While the precautionary principle suggests that decisions should be made in favor of the environmental amenity at risk, this does not suggest that perfect information is required for any alternative to proceed. In brief, it does suggest that caution be taken but that it not lead to paralysis until perfect information is available. This document uses the best available information and makes a broad presentation of it. The process of public review of this document provides an opportunity for comment and challenge to this information, as well as for the provision of additional information.

The document was prepared by Council and NMFS staff based on information provided by NMFS Pacific Islands Fisheries Science Center (PIFSC) and NMFS Pacific Islands Regional

Office (PIRO), and information developed during public Council meetings and meetings of the Council's Scientific and Statistical Committee, and after providing opportunities for members of the public to comment at the Council meetings listed in Section 1.4, and considering any comments provided. Information from U.S. Fish and Wildlife Service was provided during Council meetings and during reviews of the draft document. Additional comments on the document may be received during the comment period for the draft FEP Amendment and EA and on the proposed rule. The process of public review provides an opportunity for interested and affected parties to comment on the information contained in this document and on the analysis of potential impacts, and allows them to provide additional information. Comments will be considered before NMFS makes a decision.

## 5.8 Paperwork Reduction Act

The purpose of the Paperwork Reduction Act (PRA) is to minimize the paperwork burden on the public resulting from the collection of information by or for the Federal government. It is intended to ensure the information collected under the proposed action is needed and is collected in an efficient manner (44 U.S.C. 3501(1)).

The proposed action contains a new collection of information requirement that is subject ot review and approval by the Office of Budget and Management under the PRA. The proposed action would establish new permitting and reporting requirements for non-commercial and charter recreational fishing activity in the Monuments. Information from the permit application would allow NMFS to confirm the identity of the applicant, and to determine whether the applicant qualifies for the permit. The proposed action would also require vessel operators to fishing non-commercially in the Monuments to submit a completed catch report for each day fished within 30 days of the completion of a Monument fishing trip. The catch reports provide the information that NMFS and the Council need to monitor fishing, and evaluate and assess the status of stocks and dependent fisheries. NMFS and the Council use the information to determine whether changes in management are needed to sustain the productivity of the stocks or to address economic issues. Without the information, NMFS and the Council would be unable to determine whether the Monument management program is achieving the objectives of the FEPs and the Magnuson-Stevens Act. Information from the catch reports is used by fishery and enforcement officials of NMFS, USCG, American Samoa, Guam, CNMI to monitor compliance with fishing requirements.

NMFS estimates up to 35 permits annually, with up to 10 fishing permit applications each for the Rose Atoll and the Marianas Islands Unit and up to 15 permit applications a year for the Pacific Remote Islands Monument.

NMFS estimates that it would take an estimated 15 minutes for an applicant to complete a single permit application. The maximum public burden would be approximately 8.75 hours per year if all 35 permit applications are made. If each fishing trip lasts an average of 3 days (in a Monument), there would be three daily fishing log sheets due for each trip. A single fishing trip report is estimated to take about 20 minutes per logsheet. For a 3-day trip, the burden would be 1 hour. For all potential fishing trips in all monuments (35 permits x 3 days), there would be up to 105 log sheets in a year, which, at 20 minutes per log sheet, would result in a maximum burden of 35 hours per year if the upper limit of estimated permits were used in all the Monuments.

There is no start-up capital cost for complying with this requirement. Respondents will use paper forms provided by NMFS for providing all information. Based on an annual estimate of 35 permit applications and 105 catch reports (total of 140 submissions), the maximum estimated cost to respondents for postage, faxes, copies, etc., related to this collection is $130 per year or $0.92 per response.

The estimated annual cost to the Federal government to administer this collection of information is up to $1,108 per year at the maximum. The actual costs are likely to be much less because only a low level of activity under the program is expected due to the long distances and high costs to voyage to the remote Monument areas. This includes the cost to process permit applications (including verifying residency information) and issue permits at $438 per year (35 applications x 30 min/application x $25/hr), cost to print blank daily catch report forms of $13 per year (based on 105 forms x $0.12 per form) and processing of log forms at $657 per year, which is calculated by the cost of staff time for receiving and entering logsheet form data (105 logsheets x 15 min/logsheet x $25/hr).

NMFS has submitted this collection of information requirement to OMB for approval.

## 5.9 Executive Order 12866

To meet the requirements of E.O. 12866 of September 30, 1993, "Regulatory Planning and Review," NMFS prepares a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest. This includes an analysis of the economic effects of the preferred and alternative actions, in contrast to taking "no action". The review provides an overview of the problem, policy objectives, and anticipated impacts of the action, and ensures that management alternatives are systematically and comprehensively evaluated so that the public welfare can be enhanced in the most efficient and cost-effective way.

In accordance with E.O. 12866, the following is set forth: (1) this action is not likely to have an annual effect on the economy of more $100 million or to adversely affect in a material way the economy, a sector of the economy, productivity, jobs, the environment, public health or safety, or state, local, or tribal governments or communities; (2) this action is not likely to create any serious inconsistencies or otherwise interfere with any action taken or planned by another agency; (3) this action is not likely to materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights or obligations of recipients thereof; and (4) this action is not likely to raise novel or policy issues arising out of legal mandates, or the principles set forth in the Executive Order. Based on the information contained in this environmental assessment and provided in the RIR (Appendix A), the initial findings of this action are determined to not be significant under E.O. 12866. The preferred alternative is preliminarily determined to not be significant.

## 5.10 Regulatory Flexibility Act

The Regulatory Flexibility Act, 5 U.S.C. 601 *et seq*. (RFA), requires government agencies to assess the expected economic impact of the various regulatory alternatives on small entities, including small businesses, small organizations, and small governmental jurisdictions; and to determine ways to minimize adverse impacts. The assessment is done via the preparation of an

Initial Regulatory Flexibility Analyses (IRFA) and Final Regulatory Flexibility Analysis (FRFA) for each proposed and final rule, respectively. Under the RFA, an agency does not need to conduct an IRFA or FRFA if a certification can be made that the proposed rule, if adopted, will not have a significant adverse economic impact on a substantial number of small entities.

The proposed rule is not expected to have a significant economic impact on a substantial number of small entities, either through a significant loss in revenue, or in expenses incurred. The proposed rule would apply to the following categories of small entities: commercial fishing vessels and recreational charter fishing vessels. NMFS believes that almost all businesses operating as charter and commercial fishing vessels in the territories and in Hawaii would be considered small entities, with annual revenues below $7 million and $4 million respectively. The proposed rule would potentially apply to hundreds of vessels, regardless of gear type and size, many of which are primarily non-commercial fishing vessels that occasionally sell fish or take clients out on charter fishing trips. However, the rule will likely have little effect on overall commercial fishing and charter fishing activities relative to the status quo largely because of the low expected number of trips. NMFS has determined that the draft proposed rules would not have a significant adverse economic impact on a substantial number of small entities. This action has been certified as not expected to have significant impacts to small entities. As a result, an initial regulatory flexibility analysis is not required and none has been prepared.

## 5.11 Executive Order 12866: Regulatory Impact Review

To meet the requirements of E.O. 12866 of September 30, 1993, “Regulatory Planning and Review,” NMFS prepares a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest. This includes an analysis of the economic effects of the preferred and alternative actions, in contrast to taking “no action”. The review provides an overview of the problem, policy objectives, and anticipated impacts of the action, and ensures that management alternatives are systematically and comprehensively evaluated so that the public welfare can be enhanced in the most efficient and cost-effective way.

In accordance with E.O. 12866, the following is set forth: (1) this action is not likely to have an annual effect on the economy of more $100 million or to adversely affect in a material way the economy, a sector of the economy, productivity, jobs, the environment, public health or safety, or state, local, or tribal governments or communities; (2) this action is not likely to create any serious inconsistencies or otherwise interfere with any action taken or planned by another agency; (3) this action is not likely to materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights or obligations of recipients thereof; and (4) this action is not likely to raise novel or policy issues arising out of legal mandates, or the principles set forth in the Executive Order. Based on the information contained in this environmental assessment, the initial findings of this action are determined to not be significant under E.O. 12866. The preferred alternative is preliminarily determined to not be significant.

## 5.12 Executive Order 13112 – Invasive Species

Executive Order 13112 (signed February 3, 1999) provides that federal agencies "whose actions may affect the status of invasive species shall, to the extent practicable and permitted by law, (1) identify such actions," as well as "prevent the introduction of invasive species."

The proposed action to permit non-commercial fishing in certain waters around monuments is not likely to result in new introductions of invasive species at Rose Atoll, PRI areas because vessels are already traveling to these areas and vessels under the proposed fishing permits would not be fishing within 12 nm of shore.

In the Marianas Trench Islands Unit, there is no coral reef no-take area, and fishermen could fish in waters that support coral reefs and that are immediately adjacent to land areas. If fishing vessels were to be carrying invasive insects, mammals, or reptilians (e.g., brown tree snake), introductions could occur that could have serious adverse effects on native animal and plant species.

In general, it is unlikely that vessels home ported in the CNMI would be carrying a brown tree snake; however, there is the potential for a vessel from Guam to harbor a snake. Rats, ants, spiders, cats, dogs, and invasive plants could also be brought to the remote islands by all vessels. It should be noted that a permit to fish around the Islands Unit does not include permission to venture ashore because the lands are part of a protected CNMI reserve and permission must be obtained from the CNMI Government before going on land. Regardless of access prohibitions, it is possible for invasive species to get to shore.

If the proposed action is approved and implemented, the proposed action is not expected to result in an increase in the number of trips taken by fishermen to the remote northern islands, and there have already been a low number of vessel trips occurring. The potential for invasive species introductions would remain the same as under the no-action alternative because vessels could voyage to the northern islands if they receive a Monument permit. The CNMI DMWR and Monument managers consider preventing invasive species introductions a high priority. For this reason, Monument managers, working cooperatively with CNMI DMWR and Guam DAWR are expected to develop educational materials and other measures that will reduce the potential for the spread of invasive species.

Due to the anticipated low level of fishing activity, the opportunity for Federal managers to educate permit holders on the need to prevent the spread of invasive alien species, and the likelihood that preventive measures would be implemented by fishermen and local and Monument management entities, the proposed action to manage and monitor non-commercial fishing in the Islands Unit and other Monument areas is not expected to result in a large risk of alien species introductions to the affected Monuments.

## 5.13 Executive Order 13089 – Coral Reef Protection

Executive Order 13089 (signed June 11, 1998) provides that "(a) All Federal agencies whose actions may affect U.S. coral reef ecosystems shall: (a) identify their actions that may affect U.S.

coral reef ecosystems; (b) utilize their programs and authorities to protect and enhance the conditions of such ecosystems; and (c) to the extent permitted by law, ensure that any actions they authorize, fund, or carry out will not degrade the conditions of such ecosystems."

Under the No-action Alternative, there would be no change to the coral reef no-take zones from 0-50 fm around the PRI and Rose Atoll. There would also be no new permits or logbooks required for non-commercial fishing in the Monuments. A low level of fishing would likely continue to be authorized by the USFWS around the PRI, but this low level of fishing is not having an adverse effect on coral reef ecosystems.

Under the proposed action, all coral reefs in the PRI and the Rose Atoll Monuments would be included in a 0-12nm no take zone. The USFWS would be able to authorize fishing within the PRI no-take area in consultation with NMFS and the Council, so it is unlikely that fishing around the PRI would degrade or have an adverse effect on coral reef ecosystems.

The low amount of access and fishing in the Islands Unit is not expected to result in adverse effects to coral reef ecosystems. Although there has been access and fishing around the Islands Unit prior to the establishment of the Monument, coral reef ecosystem surveys did not detect adverse impacts to coral reefs. Although a low level of derelict fishing gear was found, it is likely that this can be attributed to commercial fishing that occurred in the distant past. All fishing would be required to comply with CNMI regulations which include a prohibition on disturbance of coral, dead, or alive; and a prohibition on the collection and/or removal from the CNMI any species of hard hermatypic reef building corals, soft corals, or stony hydrozoans, except with a special license. All catches including bottomfish and coral reef ecosystem management unit species will be reported and counted toward annual catch limits, so fishery managers can ensure the fishing is sustainable. Finally, if the low level of fishing were found to be damaging coral reefs, adjustments could be made to prevent degrading coral reef ecosystems.

## 5.14 Essential Fish Habitat and Habitat Areas of Particular Concern

EFH and HAPC for demersal and pelagic Management Unit Species have been defined as presented in Table 13.

Under the No-Action Alternative, there would be no fishing in the Monuments except for a low level of fishing authorized by the USFWS and NOAA in nearshore areas; although the Council's 0-50fathom no-take zone would remain in effect.

Under the proposed action, there would be no adverse impact to the EFH of bottomfish, coral reef and crustaceans in Rose Atoll and the PRI because there would be a no-take area from 0-12nm. There would not be an adverse effect on Pelagics EFH and HAPC from the very low level of non-commercial troll fishing any Monument. Troll fishing is not known to have an adverse effect on any western Pacific EFH or HAPC.

Within the Islands Unit, a low level of fishing would occur in areas that have coral reef ecosystem and bottomfish EFH. However, the types of fishing that would take place are not known to adversely affect EFH or HAPC.

Table 13: Essential Fish Habitat (EFH) and Habitat Areas of Particular Concern (HAPC) for species in the Rose Atoll, PRI and Marianas Trench (Islands Unit) Monuments.

| SPECIES GROUP (MUS) | EFH (juveniles and adults) | EFH (eggs and larvae) | HAPC |
|---|---|---|---|
| Pelagics | Water column down to 1,000 m | Water column down to 200 m | Water column down to 1,000m that lies above seamounts and banks. |
| Bottomfish | Water column and bottom habitat down to 400 m | Water column down to 400 m | All escarpments and slopes between 40-280 m, and three known areas of juvenile opakapaka habitat. |
| Crustaceans | Bottom habitat from shoreline to a depth of 100 m | Water column down to 150 m | All banks within the NWHI with summits less than 30 meters. |
| Coral Reef Ecosystems | water column and benthic substrate to a depth of 100 m | water column and benthic substrate to a depth of 100 m | All Marine Protected Areas identified in the FEPs (coral coral reef management), all PRIA coral reefs, and many specific areas of coral reef habitat. |

Note: All areas are bounded by the shoreline and the outward boundary of the EEZ, unless otherwise indicated.

In recent years, non-commercial fishing activity at Rose Atoll and the Islands Unit was occurring at a low level. NMFS estimates there was an average of 3.7 trips/year from the CNMI to the northern Islands over the past 10 years (Kotowicz, 2012). A very low level of commercial and non-commercial fishing occurred at Rose Atoll in the past 10 years, again, because of the long distances to the Atoll in order to fish as well as due to the prohibition on harvesting any MUS within the protected area from 0-50 fa, and the requirement to have a Refuge permit. Only a low level of troll fishing, spearfishing and diving in the PRI monuments currently occurs by residents at Wake Atoll and Palmyra Atoll. These activities are not known to have a large adverse effect on EFH or HAPC. Commercial fishing activity ended at the time the Proclamations established the Monuments and prohibited commercial fishing at Rose Atoll, the PRI, and the Islands Unit of the Marianas Trench Monuments. Under the No-action Alternative, no fishing could occur in the Monument unless provided for by law.

Under the preferred Alternative, a no-take zone would be established around Rose Atoll and the PRI Monuments, so there would be no non-commercial fishing in areas that are designated EFH or HAPC for demersal species, except for a low level of fishing that the USFWS and the DoD may authorize around the PRI Monuments.

A very low level of non-commercial troll fishing could occur beyond 12nm from shore in waters around Rose Atoll and the PRI and throughout the Islands Unit. Troll fishing is not known to

adversely affect EFH or HAPC (WPFMC, 2007). The low level of coral reef, bottomfish, and crustacean fishing that would occur under permits around the Islands Unit would be consistent with the same activities in the populated areas of the CNMI, at a much lower level and the current fishing around the CNMI is not known to have an adverse effect on EFH or HAPC (WPFMC, 2007).

## 5.15 Environmental Justice– Executive Order 12898

On February 11, 1994, President William Clinton issued Executive Order 12898 (E.O. 12898), "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." E.O. 12898 provides that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." E.O. 12898 also provides for agencies to collect, maintain, and analyze information on patterns of subsistence consumption of fish, vegetation, or wildlife.

Agencies are also to consider potential adverse effects on subsistence patterns of consumption and indicate the potential for disproportionately high and adverse human health or environmental effects on low-income populations, and minority populations.

There are no environmental justice communities in the PRI because, except for a few non-governmental organization employees at Palmyra Atoll, all the rest of the inhabitants are non-resident employees of the U.S. Government, contractors, or visitors.

The fishing communities of American Samoa, Guam, and the CNMI include many members of minority and low-income populations. Some residents of the Mariana Islands (CNMI and Guam) and American Samoa actively participate in subsistence uses of fishery resources in the EEZ around the Northern Mariana Islands, Guam, and American Samoa. However, because of the remote location of the Monument areas, there is no subsistence pattern of consumption of fishery resources in the Marianas Trench Monument, the PRI, or in the Rose Atoll Monument. In the past, residents of Guam, the CNMI and American Samoa traveled occasionally to the Monument areas to fish and return with fish for their communities. The proposed management of fishing in the Monuments is expected to allow a very low level of sustainable fishing to occur and also continue the local traditions of customary exchange in the CNMI, Guam and American Samoa.

The environmental analysis found that the proposed management of fishing in the Monuments under the action Alternatives would not have adverse environmental effects that could result in an Environmental Justice impact.

## 5.16 Administrative Procedure Act

All federal rulemaking is governed under the provisions of the Administrative Procedure Act (APA) (5 U.S.C. Subchapter II) which requires a "notice and comment" procedure to enable public participation in the rulemaking process. Under the APA, NMFS is required to publish notification of proposed rules in the Federal Register and to solicit, consider and respond to public comment on those rules before they are finalized. The APA also establishes a 30-day wait

period from the time a final rule is published until it becomes effective, with rare exceptions. This amendment and EA complies with the provisions of the APA through the Council's extensive use of public meetings, requests for comments, and consideration of comments as well as through NMFS' request for review and comment on the draft FEP Amendment and EA and draft regulations. Comments on the proposed rule, FEP amendment, and EA will be considered before a decision is made on whether or not to implement the proposed rule and whether or not to sign a Finding of No Significant Impact.

# 6 Draft Proposed Regulations

PART 665 -- FISHERIES IN THE WESTERN PACIFIC

1. The authority citation for 50 CFR part 665 continues to read as follows:
Authority: 16 U.S.C. 1801 et seq.

2. In § 665.12, add the definitions of "Customary exchange" and "Recreational fishing," in alphabetical order, and revise the definition of "Non-commercial fishing" to read as follows:
* * * * *

Customary exchange means the non-market exchange of marine resources between fishermen and community residents, including family and friends of community residents for goods, and/or services for cultural, social, or religious reasons. Customary exchange may include cost recovery through monetary reimbursements and other means for actual trip expenses, including but not limited to ice, bait, fuel, or food, that may be necessary to participate in fisheries in the western Pacific.
* * * * *

Non-commercial fishing means fishing that does not meet the definition of commercial fishing in the Magnuson-Stevens Fishery Conservation and Management Act, and includes, but is not limited to, sustenance, subsistence, traditional indigenous, and recreational fishing.
* * * * *

Recreational fishing means fishing conducted for sport or pleasure, including charter fishing.
* * * * *

3. In § 665.13,
a. Revise paragraphs (a), (c)(1), and (c)(2);
b. Revise paragraph (f)(2) introductory text, and add paragraphs (f)(2)(ix) through (f)(2)(xiii); and
c. Revise paragraph (g), to read as follows:

§ 665.13 Permits and fees.

(a) Applicability. The requirements for permits for specific western Pacific fisheries are set forth in subparts B through I of this part.
* * * * *

(c) Application.
(1) An application for a permit to operate in a Federal western Pacific fishery that requires a permit and is regulated under subparts B through I of this part may be obtained from NMFS PIRO. The completed application must be submitted to PIRO for consideration. In no case shall PIRO accept an application that is not on a Federal western Pacific fisheries permit application form.

(2) A minimum of 15 days after the day PIRO receives a complete application should be allowed for processing the application for fisheries under subparts B through I of this part. If an incomplete or improperly completed application is filed, NMFS will notify the applicant of the deficiency. If the applicant fails to correct the deficiency within 30 days following the date of the letter of notification of deficiency, the application will be administratively closed.
* * * * *

(f) Fees.

* * * * *

(2) PIRO will charge a non-refundable processing fee for each application (including transfer and renewal) for each permit listed in paragraphs (f)(2)(i) through (f)(2)(xiii) of this section. The amount of the fee is calculated in accordance with the procedures of the NOAA Finance Handbook for determining the administrative costs incurred in processing the permit. The fee may not exceed such costs. The appropriate fee is specified with each application form and must accompany each application. Failure to pay the fee will preclude the issuance, transfer, or renewal of any of the following permits:

* * * * *

(ix) Marianas Trench Monument non-commercial permit.

(x) Marianas Trench Monument recreational charter permit.

(xi) Pacific Remote Islands Monument recreational charter permit.

(xii) Rose Atoll Monument non-commercial permit.

(xiii) Rose Atoll Monument recreational charter permit.

* * * * *

(g) Expiration. A permit issued under subparts B through I of this part is valid for the period specified on the permit unless revoked, suspended, transferred, or modified under 15 CFR part 904.

* * * * *

4. In § 665.14 revise paragraphs (b)(1)(i) and (b)(2)(iv) to read as follows:

§ 665.14 Reporting and recordkeeping.

* * * * *

(b) Fishing record forms -- (1) Applicability. (i) The operator of a fishing vessel subject to the requirements of §§ 665.124, 665.142, 665.162, 665.203(a)(2), 665.224, 665.242, 665.262, 665.404, 665.424, 665.442, 665.462, 665.603, 665.624, 665.642, 665.662, 665.801, 665.905, 665.935, or 665.965 must maintain on board the vessel an accurate and complete record of catch, effort, and other data on paper report forms provided by the Regional Administrator, or electronically as specified and approved by the Regional Administrator, except as allowed in paragraph (b)(1)(iii) of this section.

* * * * *

(2) Timeliness of submission.

* * * * *

(iv) If fishing was authorized under a permit pursuant to §§ 665.124, 665.224, 665.424, 665.624, 665.905, 665.935, or 665.965, the original logbook information for each day of fishing must be submitted to the Regional Administrator within 30 days of the end of each fishing trip.

* * * * *

5. Revise § 665.599 to read as follows:

§ 665.599 Area restrictions.

Except as provided in § 665.934, fishing is prohibited in all no-take MPAs. The following U.S. EEZ waters are no-take MPAs: Landward of the 50 fathom curve at Jarvis, Howland, and Baker Islands, and Kingman Reef; as depicted on National Ocean Survey Chart Numbers 83116 and 83153.

6. Remove and reserve § 665.624 paragraph (a)(1)(i) to read as follows:

§ 665.624 Permits and fees.

(a) * * *

(1) * * *

(i) [Reserved]

* * * * *

7. Remove and reserve § 665.625 paragraphs (a) and (b)(3) to read as follows:

§ 665.625 Prohibitions. * * *

(a) [Reserved]

(b) * * *

(3) [Reserved]

* * * * *

8. In 50 CFR part 665, add subparts G, H, and I to read as follows:

Subpart G -– Marianas Trench Marine National Monument

Sec.

665.900 Scope and purpose.
665.901 Boundaries.
665.902 Definitions.
665.903 Prohibitions.
665.904 Regulated activities.
665.905 Fishing permit procedures and criteria.
665.906 International law.

Subpart H -– Pacific Remote Islands Marine National Monument

Sec.

665.930 Scope and purpose.
665.931 Boundaries.
665.932 Definitions.
665.933 Prohibitions.
665.934 Regulated activities.
665.935 Fishing permit procedures and criteria.
665.936 International law.

Subpart I -– Rose Atoll Marine National Monument

Sec.

665.960 Scope and purpose.
665.961 Boundaries.
665.962 Definitions.
665.963 Prohibitions.
665.964 Regulated activities.
665.965 Fishing permit procedures and criteria.
665.966 International law.

Subpart G -– Marianas Trench Marine National Monument

§ 665.900 Scope and purpose.

The regulations in this subpart codify certain provisions of the Proclamation, and govern the administration of fishing in the Monument. Nothing in these regulations shall be deemed to diminish or enlarge the jurisdiction of the Territory of Guam or the Commonwealth of the Northern Mariana Islands.

§ 665.901 Boundaries.

The Marianas Trench Marine National Monument includes the following:

(a) Islands Unit. The Islands Unit includes the waters and submerged lands of the three northernmost Mariana Islands (Farallon de Pajaros (Uracas), Maug, and Asuncion). The shoreward boundary of the Islands Unit is the mean low water line. The seaward boundary of Islands Unit is defined by straight lines connecting the following coordinates in the order listed:

| **ID** | **E. long.** | **N. lat.** |
|---|---|---|
| 1 | 144° 1' 22.97" | 21° 23' 42.40" |
| 2 | 145° 33' 25.20" | 21° 23' 42.40" |
| 3 | 145° 44' 31.14" | 21° 11' 14.60" |
| 4 | 146° 18' 36.75" | 20° 49' 17.46" |
| 5 | 146° 18' 36.75" | 19° 22' 0.00" |
| 6 | 145° 3' 12.22" | 19° 22' 0.00" |
| 7 | 144° 1' 22.97" | 20° 45' 44.11" |
| 1 | 144° 1' 22.97" | 21° 23' 42.40" |

(b) Volcanic Unit. The Volcanic Unit includes the submerged lands of designated volcanic sites. The boundaries of the Volcanic Unit are defined as circles of a one nautical mile radius centered on each of the following points:

| **ID** | **E. long.** | **N. lat.** |
|---|---|---|
| Fukujin | 143° 27' 30" | 21° 56' 30" |
| Minami Kasuga #2 | 143° 38' 30" | 21° 36' 36" |
| N.W. Eifuku | 144° 2' 36" | 21° 29' 15" |
| Minami Kasuga #3 | 143° 38' 0" | 21° 24' 0" |
| Daikoku | 144° 11' 39" | 21° 19' 27" |
| Ahyi | 145° 1' 45" | 20° 26' 15" |
| Maug | 145° 13' 18" | 20° 1' 15" |
| Alice Springs | 144° 30' 0" | 18° 12' 0" |
| Central trough | 144° 45' 0" | 18° 1' 0" |
| Zealandia | 145° 51' 4" | 16° 52' 57" |
| E. Diamante | 145° 40' 47" | 15° 56' 31" |
| Ruby | 145° 34' 24" | 15° 36' 15" |
| Esmeralda | 145° 14' 45" | 14° 57' 30" |
| N.W. Rota #1 | 144° 46' 30" | 14° 36' 0" |
| W. Rota | 144° 50' 0" | 14° 19' 30" |
| Forecast | 143° 55' 12" | 13° 23' 30" |
| Seamount X | 144° 1' 0" | 13° 14' 48" |
| South Backarc | 143° 37' 8" | 12° 57' 12" |
| Archaean site | 143° 37' 55" | 12° 56' 23" |
| Pika site | 143° 38' 55" | 12° 55' 7" |
| Toto | 143° 31' 42" | 12° 42' 48" |

(c) Trench Unit. The Trench Unit includes the submerged lands of the Marianas Trench. The boundary of the Trench Unit extends from the northern limit of the EEZ around the Commonwealth of the Northern Mariana Islands to the southern limit of the EEZ around Guam as defined by straight lines connecting the following coordinates in the order listed:

| ID | E. long. | N. lat. |
|---|---|---|
| 1 | 145° 5' 46" | 23° 53' 35" |
| 2 | 145° 52' 27.10" | 23° 45' 50.54" |
| 3 | 146° 36' 18.91" | 23° 29' 18.33" |
| 4 | 147° 5' 16.84" | 23° 11' 43.92" |
| 5 | 147° 22' 31.43" | 20° 38' 41.35" |
| 6 | 147° 40' 48.31" | 19° 59' 23.30" |
| 7 | 147° 39' 59.51" | 19° 27' 2.96" |
| 8 | 147° 48' 51.61" | 19° 8' 18.74" |
| 9 | 148° 21' 47.20" | 18° 56' 6.46" |
| 10 | 148° 42' 50.50" | 17° 58' 2.20" |
| 11 | 148° 34' 47.12" | 16° 40' 53.86" |
| 12 | 148° 5' 39.95" | 15° 25' 51.09" |
| 13 | 146° 23' 24.38" | 12° 21' 38.38" |
| 14 | 145° 28' 33.28" | 11° 34' 7.64" |
| 15 | 143° 3' 9" | 10° 57' 30" |
| 16 | 142° 19' 54.93" | 11° 47' 24.83" |
| 17 | 144° 42' 31.24" | 12° 21' 24.65" |
| 18 | 145° 17' 59.93" | 12° 33' 5.35" |
| 19 | 147° 29' 32.24" | 15° 49' 25.53" |
| 20 | 147° 27' 32.35" | 17° 57' 52.76" |
| 21 | 147° 20' 16.96" | 19° 9' 19.41" |
| 22 | 146° 57' 55.31" | 20° 23' 58.80" |
| 23 | 145° 44' 31.14" | 21° 11' 14.60" |
| 24 | 144° 5' 27.55" | 23° 2' 28.67" |
| 1 | 145° 5' 46" | 23° 53' 35" |

§ 665.902 Definitions.

The following definitions are used in this subpart:

Management unit species or MUS means the Mariana Archipelago management unit species as defined in §§ 665.401, 665.421, 665.441, and 665.461, and the pelagic management unit species as defined in § 665.800.

Monument means the submerged lands and, where applicable, waters of the Marianas Trench Marine National Monument as defined in § 665.901.

Proclamation means Presidential Proclamation 8335 of January 6, 2009, “Establishment of the Marianas Trench Marine National Monument.”

§ 665.903 Prohibitions.

In addition to the general prohibitions specified in § 600.725 of this part, and § 665.15 and subpart D of this chapter, the following activities are prohibited in the Islands Unit and, thus, unlawful for a person to conduct or cause to be conducted.

(a) Commercial fishing in violation of § 665.904(a).

(b) Non-commercial fishing, except as authorized under permit and pursuant to the procedures and criteria established in § 665.905.

(c) Transferring a permit in violation of § 665.905(d).

(d) Commercial fishing outside the Islands Unit and non-commercial fishing within the Islands Unit on the same trip in violation of § 665.904(c).

§ 665.904 Regulated activities.

(a) Commercial fishing is prohibited in the Islands Unit.

(b) Non-commercial fishing is prohibited in the Islands Unit, except as authorized under permit and pursuant to the procedures and criteria established in § 665.905.

(c) Commercial fishing outside the Islands Unit and non-commercial fishing within the Islands Unit during the same trip is prohibited.

§ 665.905 Fishing permit procedures and criteria.

(a) Marianas Trench Monument Islands Unit non-commercial permit.

(1) Applicability. Both the owner and operator of a vessel used to non-commercially fish for, take, retain, or possess MUS in the Islands Unit must have a permit issued under this section, and the permit must be registered for use with that vessel.

(2) Eligibility criteria. A permit issued under this section may be issued only to a community resident of Guam or the CNMI.

(3) Terms and conditions.

(i) Customary exchange of fish harvested within the Islands Unit under a non-commercial permit is allowed, except that customary exchange by fishermen engaged in recreational fishing is prohibited. Customary exchange of fish harvested under a non-commercial fishing permit in the Islands Unit may include family and friends of residents of CNMI and Guam fishing communities.

(ii) Monetary reimbursement under customary exchange shall not exceed actual fishing trip expenses related to ice, bait, fuel, or food.

(b) Marianas Trench Monument Islands Unit recreational charter permit.

(1) Applicability. Both the owner and operator of a vessel chartered to recreationally fish for, take, retain, or possess MUS in the Islands Unit must have a permit issued under this section, and the permit must be registered for use with that vessel. Charter boat customers are not required to obtain a permit.

(2) Eligibility criteria. To be eligible for a permit issued under this section, a charter business must be established legally under the laws of Guam or the CNMI.

(3) Terms and conditions.

(i) The sale or exchange through barter or trade of fish caught in the Monument by a charter boat is prohibited.

(ii) No MUS harvested under a recreational charter fishing permit may be used for the purposes of customary exchange.

(c) Application. An application for a permit required under this section must be submitted to PIRO as described in § 665.13.

(d) Transfer. A permit issued under this section is not transferrable.

(e) Reporting and recordkeeping. The operator of a vessel subject to the requirements of this section must comply with the terms and conditions described in § 665.14.

§ 665.906 International law.

These regulations shall be applied in accordance with international law. No restrictions shall apply to or be enforced against a person who is not a citizen, national, or resident alien of the United States (including foreign flag vessels) unless in accordance with international law.

Subpart H -- Pacific Remote Islands Marine National Monument

§ 665.930 Scope and purpose.

The regulations in this subpart codify certain provisions of the Proclamation, and govern the administration of fishing in the Monument.

§ 665.931 Boundaries.

The Monument, including the waters and submerged and emergent lands of Wake, Baker, Howland, and Jarvis Islands, Johnston Atoll, Kingman Reef, and Palmyra Atoll, is defined as follows:

(a) Wake Island. The Wake Island unit of the Monument includes the waters and submerged and emergent lands around Wake Island within an area defined by straight lines connecting the following coordinates in the order listed:

| **ID** | **E. long.** | **N. lat.** |
|---|---|---|
| 1 | 165° 42' 56" | 20° 9' 27" |
| 2 | 167° 32' 23" | 20° 9' 27" |
| 3 | 167° 32' 23" | 18° 25' 51" |
| 4 | 165° 42' 56" | 18° 25' 51" |
| 1 | 165° 42' 56" | 20° 9' 27" |

(b) Howland and Baker Islands. The Howland and Baker Islands units of the Monument include the waters and submerged and emergent lands around Howland and Baker Islands within an area defined by straight lines connecting the following coordinates in the order listed:

| **ID** | **W. long.** | **Lat.** |
|---|---|---|
| 1 | 177° 27' 7" | 1° 39' 15" N. |
| 2 | 175° 38' 32" | 1° 39' 15" N. |
| 3 | 175° 38' 32" | 0° 38' 33" S. |
| 4 | 177° 27' 7" | 0° 38' 33" S. |
| 1 | 177° 27' 7" | 1° 39' 15" N. |

(c) Jarvis Island. The Jarvis Island unit of the Monument includes the waters and submerged and emergent lands around Jarvis Island within an area defined by straight lines connecting the following coordinates in the order listed:

| **ID** | **W. long.** | **Lat.** |
|---|---|---|
| 1 | 160° 50' 52" | 0° 28' 39" N. |
| 2 | 159° 8' 53" | 0° 28' 39" N. |
| 3 | 159° 8' 53" | 1° 13' 15" S. |
| 4 | 160° 50' 52" | 1° 13' 15" S. |
| 1 | 160° 50' 52" | 0° 28' 39" N. |

(d) Johnston Atoll. The Johnston Atoll unit of the Monument includes the waters and submerged and emergent lands around Johnston Atoll within an area defined by straight lines connecting the following coordinates in the order listed:

| **ID** | **W. long.** | **N. lat.** |
|---|---|---|
| 1 | 170° 24' 37" | 17° 35' 39" |
| 2 | 168° 37' 32" | 17° 35' 39" |
| 3 | 168° 37' 32" | 15° 53' 26" |
| 4 | 170° 24' 37" | 15° 53' 26" |
| 1 | 170° 24' 37" | 17° 35' 39" |

(e) Kingman Reef and Palmyra Atoll. The Kingman Reef and Palmyra Atoll units of the Monument include the waters and submerged and emergent lands around Kingman Reef and Palmyra Atoll within an area defined by straight lines connecting the following coordinates in the order listed:

| ID | W. long. | N. lat. |
|---|---|---|
| 1 | 163° 11' 16" | 7° 14' 38" |
| 2 | 161° 12' 3" | 7° 14' 38" |
| 3 | 161° 12' 3" | 5° 20' 23" |
| 4 | 161° 25' 22" | 5° 1' 34" |
| 5 | 163° 11' 16" | 5° 1' 34" |
| 1 | 163° 11' 16" | 7° 14' 38" |

§ 665.932 Definitions.

The following definitions are used in this subpart:

Management unit species or MUS means the Pacific Remote Island Areas management unit species as defined in §§ 665.601, 665.621, 665.641, and 665.661, and the pelagic management unit species as defined in § 665.800.

Monument means the waters and submerged and emergent lands of the Pacific Remote Islands Marine National Monument, as defined in § 665.931.

Proclamation means Presidential Proclamation 8336 of January 6, 2009, "Establishment of the Pacific Remote Islands Marine National Monument."

§ 665.933 Prohibitions.

In addition to the general prohibitions specified in § 600.725 of this part, and § 665.15 and subparts E and F of this chapter, the following activities are prohibited in the Monument and, thus, unlawful for a person to conduct or cause to be conducted.

(a) Commercial fishing in violation of § 665.934(a).

(b) Non-commercial fishing in the Monument, except as authorized under permit and pursuant to the procedures and criteria established in § 665.935.

(c) Transferring a permit in violation of § 665.935(d).

(d) Commercial fishing outside the Monument and non-commercial fishing within the Monument on the same trip in violation of § 665.934(c).

(e) Non-commercial fishing within 12 nm of emergent land within the Monument, unless authorized by the U.S Fish & Wildlife Service, in consultation with NMFS and the Council, in violation of § 665.934(d).

§ 665.934 Regulated activities.

(a) Commercial fishing is prohibited in the Monument.

(b) Non-commercial fishing is prohibited in the Monument, except under permit and pursuant to the procedures and criteria established in § 665.935 or pursuant to 665.934(d).

(c) Commercial fishing outside the Monument and non-commercial fishing within the Monument during the same trip is prohibited.

(d) Non-commercial fishing is prohibited within 12 nm of emergent land within the Monument, unless authorized by the U.S. Fish & Wildlife Service, in consultation with NMFS and the Council.

§ 665.935 Fishing permit procedures and criteria.

(a) Non-commercial fishing.

(1) Applicability. Except as provided in section 665.934(d), a vessel that is used to non-commercially fish for, take, retain, or possess MUS in the Monument must be registered for use with a permit issued pursuant to §§ 665.603, 665.624, 665.642, 665.662, 665.801(f), or 665.801(g).

(2) Terms and conditions. Customary exchange of fish harvested in the Monument is prohibited.

(b) Pacific Remote Islands Monument recreational charter permit.

(1) Applicability. Except as provided in section 665.934(d), both the owner and operator of a vessel that is chartered to recreationally fish for, take, retain, or possess MUS in the Monument must have a permit issued under this section, and the permit must be registered for use with that vessel. Charter boat customers are not required to obtain a permit.

(2) Terms and conditions.

(i) The sale or exchange through barter or trade of fish caught by a charter boat fishing in the Monument is prohibited.

(ii) Customary exchange of fish harvested under a Monument recreational charter permit is prohibited.

(c) Application. An application for a permit required under this section must be submitted to PIRO as described in § 665.13.

(d) Transfer. A permit issued under this section is not transferrable.

(e) Reporting and recordkeeping. The operator of a vessel subject to the requirements of this section must comply with the terms and conditions described in § 665.14.

§ 665.936 International law.

These regulations shall be applied in accordance with international law. No restrictions shall apply to or be enforced against a person who is not a citizen, national, or resident alien of the United States (including foreign flag vessels) unless in accordance with international law.

Subpart I -- Rose Atoll Marine National Monument

§ 665.960 Scope and purpose.

The regulations in this subpart codify certain provisions of the Proclamation, and govern the administration of fishing within the Monument. Nothing in these regulations shall be deemed to diminish or enlarge the jurisdiction of the Territory of American Samoa.

§ 665.961 Boundaries.

The Monument consists of emergent and submerged lands and waters extending seaward approximately 50 nm from Rose Atoll. The boundary is defined by straight lines connecting the following coordinates in the order listed:

| ID | W. long. | S. lat. |
|---|---|---|
| 1 | 169° 0' 42" | 13° 41' 54" |
| 2 | 167° 17' 0" | 13° 41' 54" |
| 3 | 167° 17' 0" | 15° 23' 10" |
| 4 | 169° 0' 42" | 15° 23' 10" |
| 1 | 169° 0' 42" | 13° 41' 54" |

§ 665.962 Definitions.

The following definitions are used in this subpart:

Management Unit Species or MUS means the American Samoa management unit species as defined in §§ 665.401, 665.421, 665.441, and 665.461, and the pelagic management unit species as defined in § 665.800.

Monument means the waters and emergent and submerged lands of the Rose Atoll Marine National Monument, as defined in § 665.961.

Proclamation means Presidential Proclamation 8337 of January 6, 2009, "Establishment of the Rose Atoll Marine National Monument."

§ 665.963 Prohibitions.

In addition to the general prohibitions specified in § 600.725 of this part, and § 665.15 and Subpart B of this chapter, the following activities are prohibited in the Monument and, thus, unlawful for a person to conduct or cause to be conducted.

(a) Commercial fishing in violation of § 665.964(a).

(b) Non-commercial fishing in the Monument, except as authorized under permit and pursuant to the procedures and criteria established in § 665.965.

(c) Transferring a permit in violation of § 665.965(d).

(d) Commercial fishing outside the Monument and non-commercial fishing within the Monument on the same trip in violation of § 665.964(c).

(e) Fishing within 12 nm of emergent land within the Monument in violation of § 665.964(d).

§ 665.964 Regulated activities.

(a) Commercial fishing is prohibited in the Monument.

(b) Non-commercial fishing is prohibited in the Monument, except as authorized under permit and pursuant to the procedures and criteria established in § 665.965.

(c) Commercial fishing outside the Monument and non-commercial fishing within the Monument during the same trip is prohibited.

(d) All fishing is prohibited within 12 nm of emergent land within the Monument.

§ 665.965 Fishing permit procedures and criteria.

(a) Rose Atoll Monument non-commercial fishing permit.

(1) Applicability. Both the owner and operator of a vessel used to non-commercially fish for, take, retain, or possess MUS in the Monument must have a permit issued under this section, and the permit must be registered for use with that vessel.

(2) Eligibility criteria. A permit issued under this section may be issued only to a community resident of American Samoa.

(3) Terms and conditions.

(i). Customary exchange of fish harvested under a non-commercial permit within the Monument is allowed, except that customary exchange by fishermen engaged in recreational fishing is prohibited. Customary exchange of fish harvested under a non-commercial permit in the Monument may include family and friends of residents of the American Samoa fishing community.

(ii) Monetary reimbursement under customary exchange shall not exceed actual fishing trip expenses related to ice, bait, fuel, or food.

(b) Rose Atoll Monument recreational charter permit.

(1) Applicability. Both the owner and operator of a vessel that is chartered to fish recreationally for, take, retain, or possess MUS in the Monument must have a permit issued under this section, and the permit must be registered for use with that vessel. Charter boat customers are not required to obtain a permit.

(2) Permit Eligibility criteria. To be eligible for a permit issued under this section, a charter business must be established legally under the laws of American Samoa.

(3) Terms and conditions.

(i) The sale or exchange through barter or trade of fish caught by a charter boat fishing in the Monument is prohibited.

(ii) No MUS harvested under a recreational charter fishing permit may be used for the purposes of customary exchange.

(c) Application. An application for a permit required under this section must be submitted to PIRO as described in § 665.13.

(d) Transfer. A permit issued under this section is not transferrable.

(e) Reporting and recordkeeping. The operator of a vessel subject to the requirements of this section must comply with the terms and conditions described in § 665.14.

§ 665.966 International law.

These regulations shall be applied in accordance with international law. No restrictions shall apply to or be enforced against a person who is not a citizen, national, or resident alien of the United States (including foreign flag vessels) unless in accordance with international law.

Figure 1. Marianas Trench Marine National Monument.

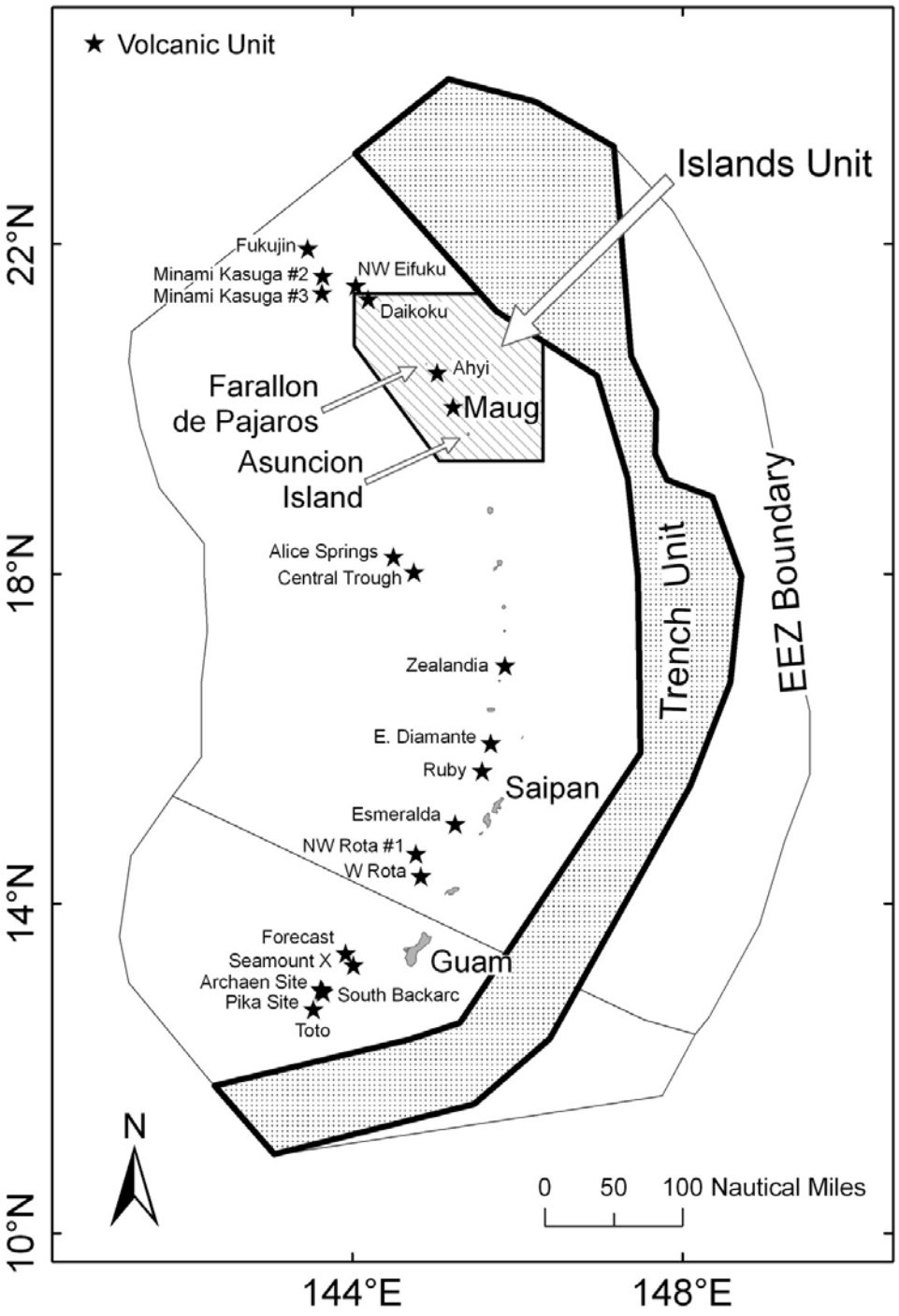


Figure 2. Wake Island, Pacific Remote Islands Marine National Monument.

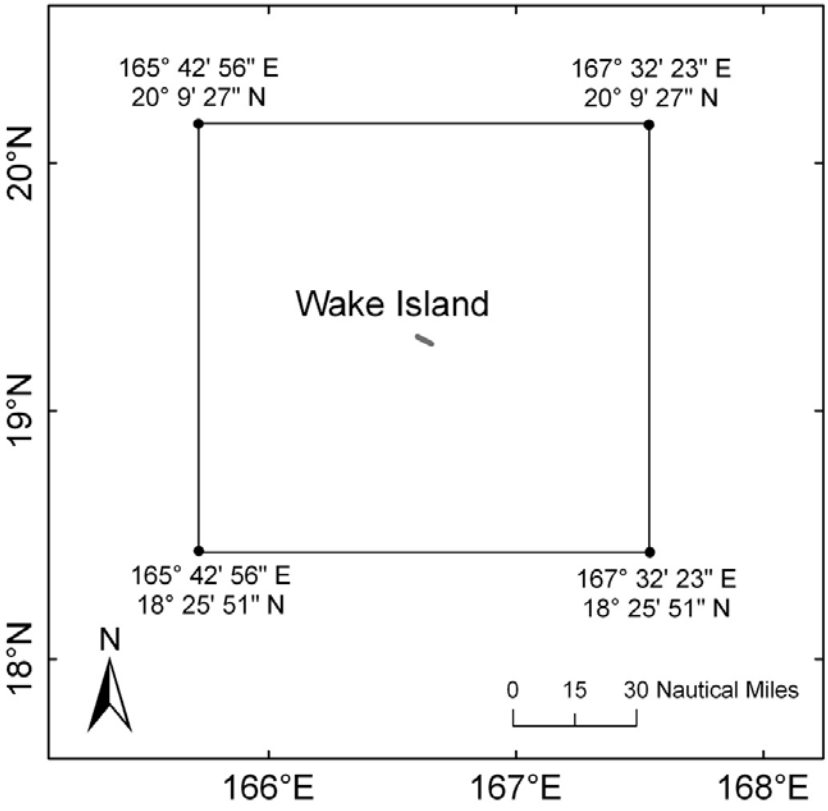


Figure 3. Howland and Baker Islands, Pacific Remote Islands Marine National Monument.

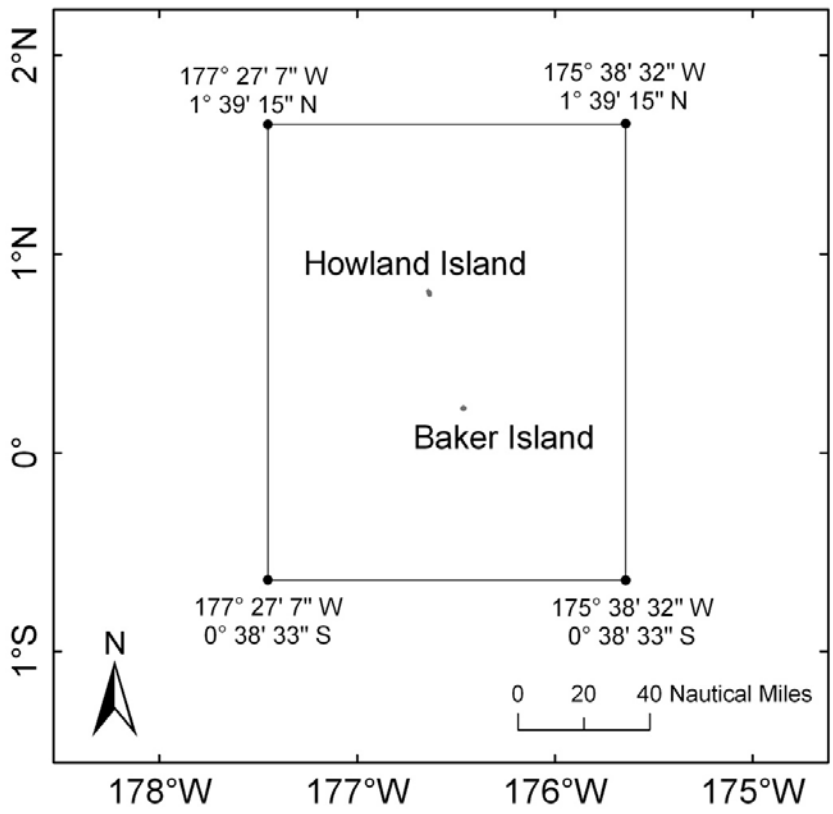


Figure 4. Jarvis Island, Pacific Remote Islands Marine National Monument.

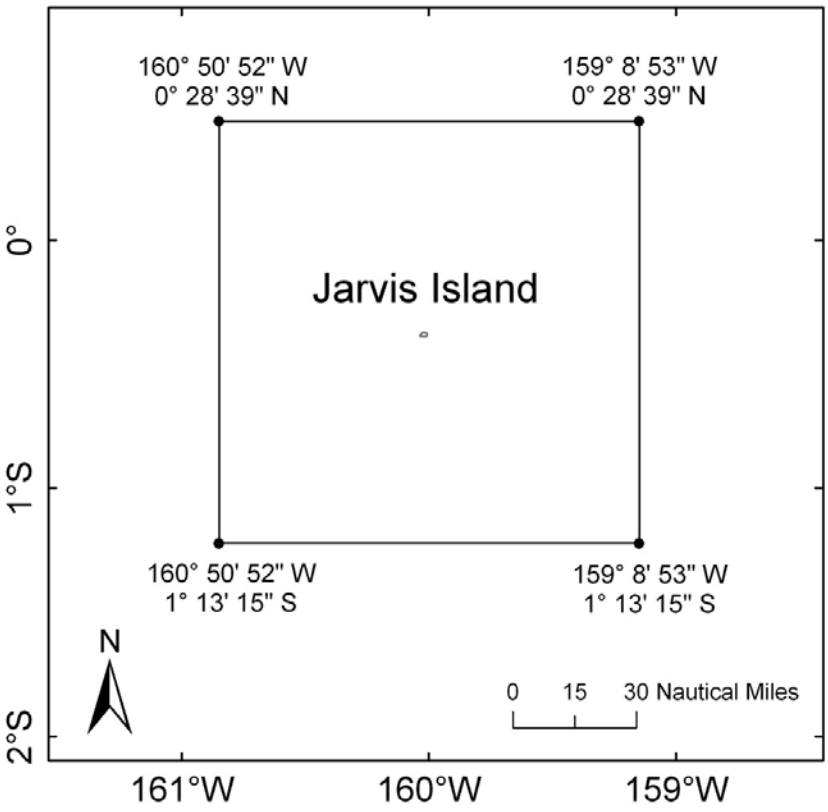


Figure 5. Johnston Atoll, Pacific Remote Islands Marine National Monument.

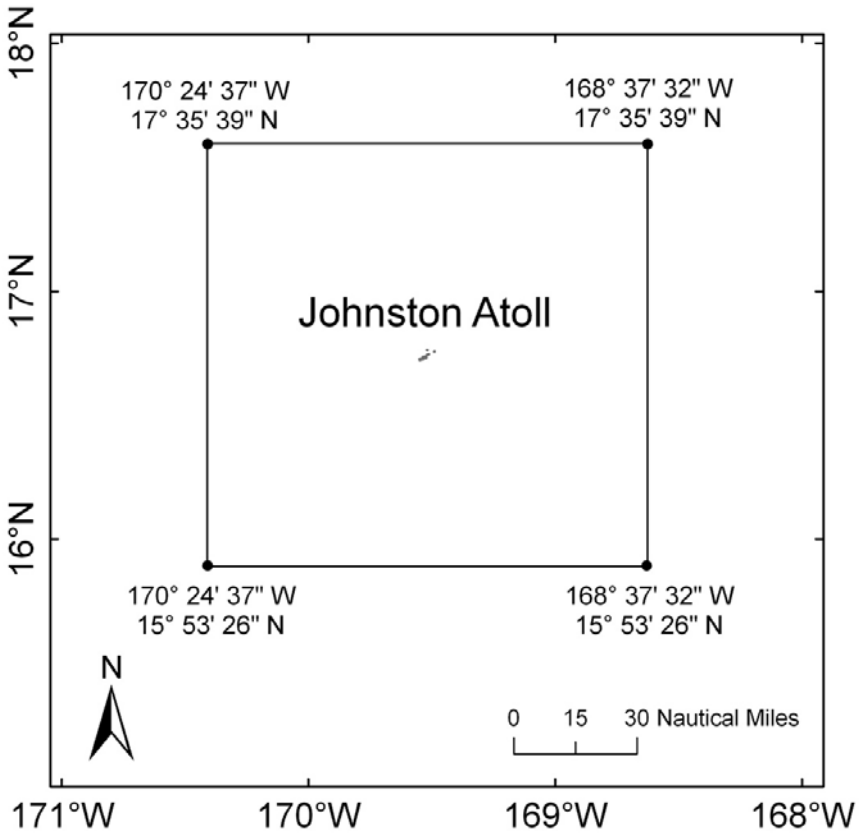


Figure 6. Kingman Reef and Palmyra Atoll, Pacific Remote Islands Marine National Monument.

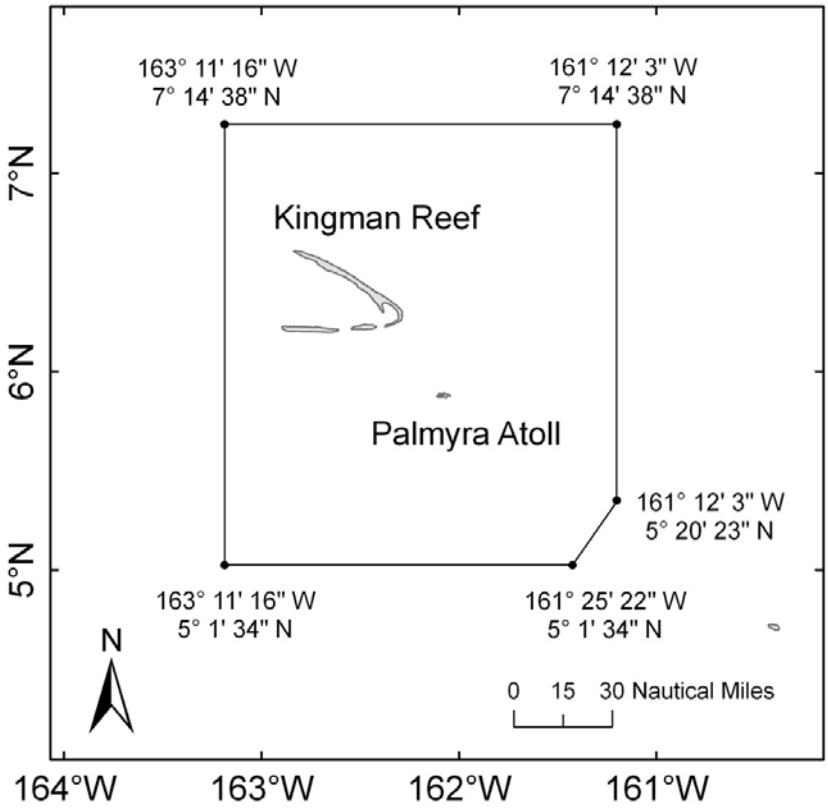
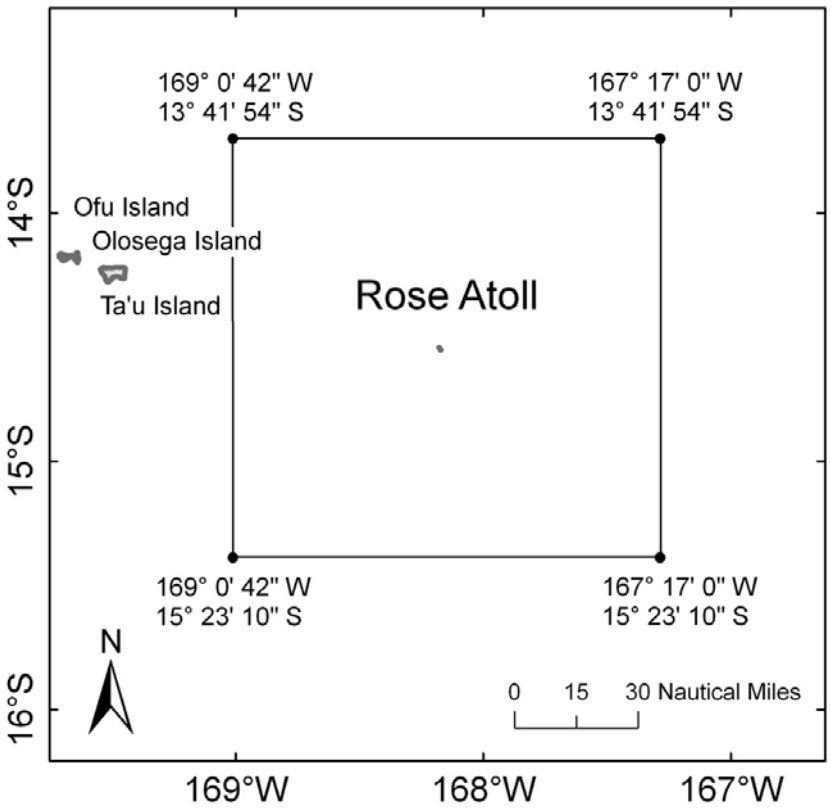


Figure 7. Rose Atoll Marine National Monument.



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# Appendix A: Regulatory Impact Review

## 1. Introduction

The regulatory impact review (RIR) is required under Executive Order (E.O.) 12866, Regulatory Planning and Review (58 FR 51735; October 4, 1993). The requirements for all regulatory actions are summarized in the following statement from E.O 12866:

"In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless essential to consider. Further, in choosing among alternative regulatory approaches, agencies should select those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach."

## 2. Problem Statement and Management Objective

In January 2009, under the authority of the Antiquities Act of 1906 (16 U.S.C. 431), President George W. Bush established three marine national monuments (Monuments) in the western Pacific, through Presidential Proclamations as follows:

Proclamation 8335 of January 6, 2009: Establishment of the Marianas Trench Marine National Monument (74 FR 1557, January 12, 2009);

Proclamation 8336 of January 6, 2009: Establishment of the Pacific Remote Islands Marine National Monument (74 FR 1565, January 12, 2009); and

Proclamation 8337 of January 6, 2009: Establishment of the Rose Atoll Marine National Monument (74 FR 1577, January 12, 2009).

The Presidential Proclamations that establish the Rose Atoll, Pacific Remote Islands (PRI), and Marianas Trench Monuments contain specific requirements related to the management of fishing in Monument areas. Specifically, the Proclamations direct the Secretaries of Commerce and Interior to prohibit commercial fishing within the Rose Atoll and the PRI Monuments, and within the Islands Unit of the Marianas Trench Monument, and further authorize the Secretaries to permit non-commercial fishing in the Rose Atoll, PRI, and Marianas Trench Islands Unit Monuments on a sustainable basis and consistent with the overall conservation objectives of the Monument. The purpose of this action is to amend the FEPs and promulgate regulations consistent with the fishery-related requirements of the Proclamations.

This action is necessary in order to administer the Monuments consistent with the conservation and management directives of the Proclamations. This action would incorporate the boundaries of the Monuments and the prohibition on commercial fishing in designated Monument areas into the fishery regulations. It would also authorize non-commercial fishing (including traditional

indigenous, sustenance, recreational, and charter recreational fishing) at Rose Atoll, the PRI, and in the Marianas Trench Islands Unit.

**3. Description of the Fisheries**

See Section 3.1.1 of the Amendment and EA on detailed information on fisheries based in Guam and CNMI. Section 3.1.2.1 describes recent fishing activities in the Islands Unit (Asuncion Island, Maug Island, and Uracas (Farallon de Pajaros Island)). Sections 3.2.2 and 3.2.3 describe commercial fishing and non-commercial fishing, respectively in the Pacific Remote Islands and within the PRI Monument. Section 3.3.3 contains general information on fisheries operating in American Samoa and recent fishing activities at Rose Atoll.

**4. Description of Alternatives**

The alternatives under consideration would apply to all vessels fishing within the boundaries of any of the three Monuments.

**Alternative 1: No Action Alternative: Do not amend the Pelagics FEP or archipelagic FEPs or promulgate regulations as to implement the fishery and management directives in Proclamations 8335, 8336, and 8337.**

Under this alternative, NMFS would not amend the Pelagics FEP or archipelagic FEPs or promulgate regulations that address the commercial fishing prohibition within the Monuments or to address the sustainable management of non-commercial fishery provisions.

Under this alternative, commercial fishing in the Islands Unit of the Marianas Trench Monument, the PRI, and the Rose Atoll Monuments would continue to be prohibited under the Proclamations. Existing fishery regulations would continue to be enforced under the MSFCMA. NMFS would not implement the Council's fishery management recommendations including definitions for non-commercial fishing.

Non-commercial fishing could occur in the Monument, and would likely occur at the same low level as historically occurred. Non-commercial fishing in the Monument would not require a Monument permit, but existing western Pacific fishing permits and logbooks would continue to be required. Non-commercial fishing in a Monument could occur on the same trip as commercial fishing outside of a Monument. Other existing required permits to fish non-commercially in the Monuments would continue to apply.

**Alternative 2: Amend the Pelagics FEP and archipelagic FEPs and promulgate regulations to implement only the provisions of Proclamations 8335, 8336, and 8337, on prohibiting commercial fishing and codifying the boundaries of the Monuments. No new management measures for non-commercial fishing in the PRI and Rose Atoll Monuments or in the Islands Unit of the Marianas Trench Monument would be implemented.**

Under this alternative, NMFS would not implement the Council's recommendations including definitions for non-commercial fishing. Non-commercial fishing in the Monument would not

require a Monument permit, but existing western Pacific fishing permits and logbooks would continue to be required. Non-commercial fishing in a Monument could occur on the same trip as commercial fishing outside of a Monument. NMFS would codify the other required provisions of the Proclamations as described in Section 1.2 of the Amendment/EA, including codifying the boundaries of the Monuments and the prohibition on commercial fishing within each of the Monuments, in accordance with the Proclamations.

**Alternative 3: Proposed Action (Preferred Alternative): Amend the Pelagics FEP and archipelagic FEPs and promulgate regulations to implement at the provisions of Proclamations 8335, 8336, and 8337, on prohibiting commercial fishing and codifying the boundaries of the Monuments. Implement the Council's recommendations for sustainably managing non-commercial fishing in the PRI and Rose Atoll Monuments, and in the Islands Unit of the Marianas Trench Monument.**

Under the Proposed Action, NMFS would promulgate new regulations at 50 CFR Part 665 to implement the required provisions of the Proclamations. In addition, the Pelagics FEP and the archipelagic FEPs would be amended to include the Council's recommendations for managing non-commercial fishing and to define "non-commercial fishing", "recreational fishing", and "customary exchange" as described in Section 2.3 of the Amendment/EA.

Commercial fishing in the Islands Unit of the Marianas Trench Monument and in the PRI and Rose Atoll Monuments would continue to be prohibited under the Proclamations

Fishing in the Islands Unit, the PRI and Rose Atoll Monuments would be subject to new requirements. A non-commercial permit would be required in order to fish non-commercially in the Rose Atoll Monument and Islands Unit of the Marianas Trench Monument; and an existing western Pacific fishing permit or a Monument recreational charter fishing permit would be required to non-commercially fish in the PRI Monument.

Fishermen wishing to fish non-commercially within the Islands Unit or in the Rose Atoll Monument would need to obtain either a recreational charter permit or non-commercial fishing permit; only community members of Guam and the CNMI (in the case of the Islands Unit) or of American Samoa (for fishing in Rose Atoll) would be eligible for these permits. Fishermen fishing in Rose Atoll or the Islands Unit under a non-commercial fishing permit could engage in customary exchange to help recoup costs of their fishing trip. Recreational charter fishermen could not engage in customary exchange. To fish in the PRI Monument, non-commercial fishermen must obtain either one of six existing PRIA/Western Pacific fishing permits (based on the MUS being harvested) or a recreational charter fishing permit.

## 5.0 Analysis of Expected Benefits and Costs of the Proposed Action

### 5.1 Changes in Net Benefits

#### 5.1.1 Alternative 1: No Action Alternative: Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments.

*Mariana Archipelago - Islands Unit*

Commercial fishing would continue to be prohibited in the Islands Unit as established by the Proclamation. Under this Alternative, there would be no management of non-commercial fishing in the Monument and there could be a low level of non-commercial fishing in the Monument, and it is possible that a low level of local sales of fish caught outside of Monument waters would occur following non-commercial fishing trips to the Monument.

Under the No-action alternative, commercial pelagic, bottomfish, crustacean, and coral reef fishing in areas outside of the Monument would continue and would be managed under the Mariana Islands FEP and the Pelagics FEP.

*Pacific Remote Islands Area*

Commercial fishing would continue to be prohibited in the PRI Monument. Under the No-action alternative, there would be no management of non-commercial fishing in the Monument and there could be low level of non-commercial sustenance and recreational fishing in the Monument – likely by recreational vessels visiting Palmyra Atoll.

Under the No-action Alternative, the low level of non-commercial fishing that is administered by the U.S. Fish and Wildlife Service (USFWS) at Palmyra Atoll and by the DoD and the USFWS at Wake Island would likely continue. The no-take zones for coral reef ecosystem (CRE) species from 0-50 fm around Howland, Baker, Jarvis Islands, Kingman Reef, and Johnston Atoll Units of the PRI Monument would continue. The low take CRE zone from 0-50 fm around Wake Island and Palmyra Atoll would continue.

Under the No-action alternative, it is possible that a low level of sales of fish caught outside of Monument waters would occur following non-commercial fishing trips to the Monument.

*American Samoa - Rose Atoll Marine National Monument*

Under the No-action Alternative, commercial fishing would continue to be prohibited in the Rose Atoll Monument. There would be no management of non-commercial fishing in the Monument and a low level of non-commercial fishing in the Monument would likely continue. Because of the existing 0-50 fathom no-take coral reef ecosystem fishing area, it is likely that fishing would consist primarily of troll fishing. Sustainable fishing, managed under the American Samoa FEP and the Pelagics FEP would continue in other areas of the EEZ around American Samoa.

Under the No-action Alternative, it is possible that a low level of local sales of fish caught outside of Monument waters would occur following non-commercial fishing trips to the Monument.

### 5.1.2 Alternative 2: Amend the FEPs and promulgate regulations to codify the Monument boundaries and the prohibition on commercial fishing.

Fishing activities, both commercial and non-commercial, in all areas will be the same as under Alternative 1. Codifying the prohibition on commercial fishing and the boundaries of the Monuments would not change the type of fishing, location, or areas fished, relative to the No-action Alternative.

### 5.1.3 Alternative 3: Preferred Alternative

Under the Preferred alternative (Alternative 3), NMFS would amend the FEPs and promulgate regulations to codify the Monument boundaries and the prohibition on commercial fishing, and define and sustainably manage non-commercial fishing.

The potential impacts in each Monument area are summarized here.

*Mariana Archipelago – Islands Unit*

Under the Preferred Alternative, there would be less commercial fishing because all sales of fish caught in the Monument would be prohibited (as with the No-Action Alternative and Alternative 2) and fishing commercially outside the Islands Unit and inside the Islands Unit during the same trip would be prohibited as well.

Residents of Guam and the CNMI would have the opportunity to undertake non-commercial fishing in the Islands Unit with a non-commercial fishing permit or a charter recreational fishing permit. The number of annual non-commercial fishing trips to the Islands Unit will likely be low, based on estimates of past fishing activities. Fishermen living in populated areas of Guam and CNMI must travel far to reach the Islands Unit, at a considerable expense; and annual number of trips to the Islands Units has been low at an estimated average of 3.8 trips a year. The small number of non-commercial fishing trips to the Islands Unit is expected to result in minimal harvests each year and harvests would be reported on logsheets and taken into account for Annual Catch Limits (ACL). NMFS (for the purposes of the environmental effects analysis) expanded the likely number of trips; and uses an estimate of up to ten annual trips to the Islands Unit by non-commercial permit holders or charter for hire vessels.

The following fishing activities could potentially occur in the Islands Unit under non-commercial permits: 1) troll fishing, using hooks and line, near the surface to catch pelagic fishes, 2) bottomfish fishing using hooks and line gear, including shallow-water bottomfish fishing and deep-water bottomfish fishing, 3) fishing for spiny lobster in nearshore waters using hand harvest, and 4) coral reef fishing using spear and shore-based pole and line fishing.

Trollers are most likely to catch mahimahi, wahoo, skipjack tuna, yellowfin tuna, and Pacific blue marlin, with tunas and billfish expected to be caught at low levels with troll gear.

Bottomfish catches in the Monument would likely be very low as well, relative to overall recent commercial bottomfish catch in CNMI which was 17,419 lb. Harvests of lobsters in the Islands unit are expected to be very low because hand harvest is highly labor intensive. Non-commercial deepwater shrimp fishing is not likely due to the short shelf-life of shrimp and specialized fishing gear required. Coral reef ecosystem species catch is likely to be low, compared with the available biomass and compared with catches in populated areas.

Although under the No-action Alternative, Alternative 2, and the Preferred Alternative, catch from Monument waters cannot be sold commercially, the No-action Alternative and Alternative 2 would provide opportunity for sale of catches caught outside the Monument. Therefore, there could be a slight impact on commercial fish sales and impacts to consumers could be greater under the proposed action. However, non-commercial transactions compatible with fishing with traditional, cultural, and sustenance focus could continue. Customary exchange of fish harvested by CNMI or Guam-based non-commercial fishermen could occur under the proposed action, and could include cash reimbursements to help pay for the cost of the trip. A 65-foot vessel traveling from Saipan to Asuncion could incur estimated costs of $5,350. The same vessel could spend about $6,400 to travel from Saipan to Uracas. By allowing these non-commercial fishermen to engage in the practice of customary exchange of fish caught in the Monument, as they had done prior to the Islands Unit being designated a Unit of a Marine National Monument, these non-commercial trips to the Islands Unit could continue. The Preferred Alternative, which would allow a continuing low level of regulated non-commercial fishing in the Islands Unit, would allow participants to benefit from the opportunity to travel to and fish in an area that is a historic fishing ground. It would also sustain social cohesion by allowing the practices associated with fishing in the Islands Unit, including the customary exchange of fish and other marine harvests within the community, to continue. Without the ability to sell fish caught outside the Islands Unit on the same trip, there could, potentially be fewer fish available to the community for customary exchange compared with Alternatives 1 and 2.

Under the Preferred Alternative, commercial fishermen could not sell fish caught outside the Islands Unit when fishing non-commercially inside the Islands Unit during the same trip. The impact to fishermen fishing commercially would be more constrained under the Preferred Alternative compared with either the No-action Alternative or Alternative 2 because although commercial fishing could occur in the areas outside of the Monument, no fish caught on a Monument fishing trip could be sold. Fishermen fishing non-commercially within the Monument must forgo potential revenues from fish caught outside of the Monument. The impact is not expected to be large because Monument trips are likely to be rare, and fishermen can fish commercially at all other times, in other areas.

Under the Preferred Alternative, recreational charter vessels with charter recreational fishing permits and which are based in Guam or CNMI would be allowed to take fishermen to fish in the Islands Unit. Fish caught in the Islands Unit under this permit could not be sold, bartered, traded, nor included in customary exchange. The Preferred Alternative would not allow charter vessels to take clients on charter fishing trips to the Islands Unit and sell fish caught outside the Islands Unit; unlike the no-action alternative where there could be non-commercial fishing in the Islands Unit and commercial fishing outside of the Islands Unit during the same trip. Although Charter vessel owners and operators would not be able to practice customary exchange, these companies

could offset the cost of a trip by charging customers prices that include the items needed to travel to and fish in the Islands Unit.

There would be little to no difference in the amount of fish available for commercial consumption under any of the alternatives. Commercial fishing in the Islands Unit is banned under the Proclamation, but the No-action Alternative does not prohibit fishermen from selling fish caught outside of the Islands Unit during an Islands Unit fishing trip. This might lead to a slight increase in amount of fish available from the northern Mariana Islands Area for commercial consumption under the No-action and Alternative 2, relative to the Preferred Alternative. The amount of fish made available to those who receive fish through non-commercial channels may be slightly lower or higher under the Preferred Alternative relative to the No-impact Alternative and Alternative 2, depending on whether the provision for allowing customary exchange of fish caught in Monument waters would lead to greater number of fish being made available through non-commercial channels, relative to the potential change in non-commercial fishing activity (a reduction, for those going on an Islands Unit fishing trip) because of the restriction on commercial fishing on the same trip as an Islands Unit fishing trip. The fact that only a few non-commercial fishing trips to the Islands Unit may be taken in a year would not necessarily reduce fish available to the community because fishing trips would continue and anybody could continue to fish commercially or non-commercially in areas outside of the Islands Unit. Non-commercial fishing in the Islands Unit would not have an adverse effect on fish stocks because of the limited amount of effort as well as the fact that logbooks would allow local managers, the Council, and NMFS to monitor fishing. For these reasons, fishing is expected to be sustainable under the Preferred Alternative.

The Preferred Alternative also proposes the establishment of annually issued permits, reporting, and logbooks. Permit and logbook requirements for non-commercial fishermen practicing traditional indigenous, sustenance, recreational and cultural fishing, would be separate from charter (recreational) fishing to facilitate the identification of fishermen within each category and to monitor catch and effort by each sector. Non-commercial traditional indigenous, sustenance, recreational, and charter (recreational) fishermen would need to spend a small amount of time and expense annually to complete and submit these forms by mail or other permissible means. The time spent would be approximately 15 minutes per permit application (annually) and 20 minutes per logsheet for each day of fishing. Permit applicants would pay $38 to file a paper permit application and $14 to file an online application.

*Pacific Remote Islands Monument*

Under the Proposed action, a no-take marine preserve would be established out to 12nm around the PRI Units, subject to non-commercial fishing authorized by the USFWS in consultation with NMFS and the Council. Outside of 12nm, non-commercial fishing would require a permit from NMFS and fishermen would be required to fill out and submit logbooks; however, new permit and logbook requirements would only apply to charter recreational fishermen. Other non-commercial fishermen wishing to fish in the open areas around the PRI Monument Units would continue to obtain one of six existing Western Pacific/PRIA fishing permits (based on the MUS being harvested). Residency requirements would not need to be met in order to receive a permit to fish non-commercially in the PRI Monument.

Because the number of non-commercial fishing trips to the PRI units is expected to be small and of short duration, non-commercial yield from these trips will be low. NMFS (for the purpose of the environmental effects analysis) expanded the likely low level of fishing trips and estimated that up to 15 trips would be made annually to fish in the PRI Monument. The projected low annual number of trips to the PRI units is attributed to the distance from populated areas, the costs of trips, and because the prohibition on fishing commercially outside the Monument and fishing non-commercially during the same trip. The prohibition on customary exchange in the PRI Monument will also discourage interest in a fishing permit.

A small amount of non-commercial recreational and sustenance fishing may occur by charter vessels, yachters, or fishermen visiting Palmyra Atoll from Hawaii. A low level of non-commercial troll fishing, using hooks and line, near the surface to catch pelagic fishes would be expected to occur under the Preferred Alternative. Fish caught by trollers include yellowfin tuna, some bigeye tuna, mahimahi, and wahoo (ono).

Under the Preferred Alternative, commercial fishermen could not sell any fish caught outside the Monument following a Monument fishing trip. Therefore, under the Preferred Alternative fishermen would be more constrained compared with the No-action Alternative or Alternative 2 because, although commercial fishing could occur in the areas outside of the Monument, no fish caught on a Monument fishing trip could be sold. This impact is not expected to be large because commercial fishing can occur by Hawaii fishermen in areas outside of the Monument.

Under the Preferred Alternative, recreational charter vessels would need a charter recreational fishing permit to take fishermen to fish in the PRI Monument. Fish caught in Monument waters under this permit could not be sold, bartered, traded, nor included in customary exchange. The Preferred Alternative would not allow charter vessels to take clients on charter fishing trips to the Monument and sell fish caught outside the Monument; unlike either the No-action Alternative or Alternative 2 where there could be non-commercial fishing in the Monument and commercial fishing outside of the Monument on the same trip.

There would be little to no difference in the amount of fish available for commercial consumption under any of the Alternatives. Commercial fishing in Monument waters is banned under the Proclamation, but neither the No-action Alternative nor Alternative 2 prohibits fishermen from selling fish caught outside of the Monument during a Monument fishing trip. Therefore, the Preferred Alternative could lead to a slight decrease in amount of fish available from around the PRI for commercial sale relative to Alternatives 1 and 2.

The Preferred Alternative also proposes the establishment of annually-issued permits, reporting, and logbooks. Permit and logbook requirements for non-commercial/non-charter fishermen fishing in the PRI, would not change, as these fishermen would still need to obtain one of six Western Pacific/PRIA fishing permits (based on the MUS being harvested. Businesses operating charter fishing vessels would see new permit and logbook requirements. Non-commercial recreational or sustenance and charter recreational fishermen would be required to spend a small amount of time and expense annually to complete and submit these forms by mail or other permissible means. The time spent would be approximately 15 minutes per permit application

(annually) and 20 minutes per logsheet for each day of fishing. Permit applicants would pay $38 to file a paper permit application and $14 to file an online application.

*American Samoa - Rose Atoll Marine National Monument*

Under the Proposed Action, there would be a no-take marine preserve from 0-12 nm and a permit and logbooks would be required to fish non-commercially in the Monument from 12-50 nm. A low level of troll fishing would be an opportunity for residents of Manua, Ofu, Olosega or Tau to travel to and fish in the Rose Atoll Monument. The opportunity to fish in the monument would allow the continuation of social practices involving fishing and the post-harvest distribution of fishery resources that are part of cultural norms.

While the Preferred Alternative may result in less non-commercial fishing and harvest in the Monument, relative to the No-action Alternative, the difference is likely to be small. NMFS conservatively estimates (by expanding the likely number of trips) that up to 10 non-commercial fishing trips in Rose Atoll would occur each year. Only a low level of commercial fishing has occurred in the Rose Atoll area in recent years because of the distance from Tutuila and Manua Islands. Under the Preferred Alternative, non-commercial fishermen using customary exchange of fish would be allowed to recover some trip expenses. The cost of a non-commercial fishing vessel traveling from Manua Islands to Rose Atoll is estimated to be $205 for a one day trip and $1,267 for a three day trip. A five-day trip originating from Tutuila could cost almost $2,096, so allowing cost recovery would help allow the practice of customary exchange and traditional fishing practices to continue.

Under the Preferred Alternative, commercial fishermen could not sell fish caught outside the Monument, when fishing non-commercially inside the Monument during the same trip. The impact to fishermen fishing commercially would more constrained under the Preferred Alternative compared with the no action alternative because although commercial fishing could occur in the areas outside of the Monument, no fish caught on a Monument fishing trip could be sold.

Under the Preferred Alternative, recreational charter vessels would need a charter-for-hire Monument fishing permit and be based in American Samoa in order to take clients to fish from 12-50 nm of the Rose Atoll Monument waters. Fish caught in Monument waters under this permit could not be sold, bartered, traded, nor included in customary exchange. The Preferred Alternative would not allow charter vessels to take clients on charter fishing trips to the Monument and sell fish caught outside the Monument, unlike the No-action Alternative where there could be non-commercial fishing in the Monument and commercial fishing outside of the Monument.

Implementing the Preferred Alternative should have little to no impact to commercial fishing, which is banned for all vessels within the Rose Atoll Monument through Proclamation 8337, and had already been banned for large vessels prior to the establishment of the Monument. Under the Preferred Alternative, commercial fishermen cannot sell fish caught outside the Monument following a Monument fishing trip. The net benefit to fishermen would likely be about the slightly higher for the No-action Alternative, because the lack of regulation would allow

fishermen to fish non-commercially within the Monument and sell fish caught outside of the Monument on the same trip. The difference is expected to be small.

There would be little to no difference in the amount of fish available for commercial consumption under either of the alternatives. Commercial fishing in Monument waters is banned under the Proclamation, but the No-action Alternative does not prohibit fishermen from selling fish caught outside of the Monument during a Monument fishing trip. This might lead to a slight increase in amount of fish available for commercial consumption relative to the Preferred Alternative. The amount of fish made available to those who receive fish through non-commercial channels may be slightly lower or higher under the Preferred Alternative relative to the No-action Alternative, depending on whether the provision for allowing customary exchange of fish caught in Monument waters would lead to greater number of fish available through non-commercial channels, relative to the potential change in non-commercial fishing activity because of the new permitting requirements. The fact that a few non-commercial Monument fishing trips may be taken in a year would not necessarily reduce fish available to the community because fishing trips would continue and anybody could continue to fish commercially or non-commercially in areas outside of the Monuments. Non-commercial fishing in the Monument would not have an adverse effect on fish stocks and current levels of fishing ensure that fishing is sustainable.

The Preferred Alternative also proposes the establishment of annually issued permits, reporting, and logbooks, which would allow managers to monitor how much fish is being harvested from the Monument. Permit and logbook requirements for non-commercial fishermen practicing recreational traditional indigenous, recreational or cultural fishing, would be separate from charter (recreational) fishing to facilitate the identification of fishermen within the two categories and monitor catch and effort by each. Non-commercial traditional/cultural fishing and charter (recreational) fishermen would be required to spend a small amount of time and expense annually to complete and submit these forms by mail or other permissible means. The time spent would be approximately 15 minutes per permit application (annually) and 20 minutes per logsheet for each day of fishing. Permit applicants would pay $38 to file a paper permit application and $14 to file an online application.

### 5.2 Distributional Changes in Net Benefits

The Preferred Alternative is not expected to provide benefits to non-commercial vessels relative to commercial vessels in any Monument area because, although non-commercial vessels may, with a permit, fish in an area that is closed to commercial fishing, the area is very far from population centers and will result in costs to groups that wish to fish in the Monument. Also, the prohibition on mixing non-commercial Monument fishing with commercial fishing outside the Monument on the same trip would also reduce any large advantage the non-commercial fishing vessels might have. Because of the low amount of fishing, the Preferred Alternative would not result in a change of the availability of fish available for commercial vessels elsewhere in the EEZ.

### 5.3 Changes in Income and Employment

All of the alternatives are expected to have very little change to income and regional employment because the proposed measures would lead to very small changes in non-commercial and recreational fishing overall.

### 5.4 Impacts to Government

**Alternative 1: No Action Alternative: Do not amend the FEPs or promulgate regulations for management of fishing in the Monuments.**

There would be no new permit or reporting requirement under the No-action Alternative.

**Alternative 2: Amend the FEPs and promulgate regulations to codify the Monument boundaries and the prohibition on commercial fishing.**

Alternative 2 would improve enforcement of the prohibition on non-commercial fishing by allowing enforcement of the prohibition to occur in accordance with the MSFCMA. Compliance would be enhanced because the boundaries would be codified in the FEPs and the regulations.

There would be low administrative costs to the government for changing the regulations and to the Council to change the FEPs and to both for outreach and education.

**Alternative 3: Preferred Alternative**
The new permit and logbook program would require some new additional administrative costs for NOAA, including the cost to process, print, distribute permits and receive logbooks and analyze data, based on up to an estimated 35 permits and fishing trips annually. The environmental assessment for this proposed action estimates the annual cost to the Federal government to administer the new permit and logbook program to be $1,920 or less, depending on the number of permits that are actually issued.

The proposed action would not result in large adverse effects to administration and enforcement. The requirement to have a permit to fish and the prohibition on combining commercial and non-commercial fishing trips are both expected to ease in enforceability. No additional law enforcement patrols are likely to be needed.

### 5.5 Cumulative Impacts
None of the alternatives considered here are expected to result in cumulatively significant adverse impacts when considered in conjunction with other existing or future conservation and management measures that affect these fisheries.

## 6. Summary of the Significance Criteria

E.O. 12866 requires that the Office of Management and Budget review proposed regulatory programs that are considered to be “significant.” A “significant regulatory action” is one that is likely to:

Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

Create a serious inconsistence or otherwise interfere with an action taken or planned by another agency;

Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive Order

Based on the costs and benefits discusses in the RIR and the above criteria, none of the alternatives appear to have the potential to constitute a "significant" action under the E.O. 12866.

**Regulatory Flexibility Act**

The Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq*.) requires government agencies to assess and present the impact of their regulatory actions on small entities including small businesses, small organizations, and small governmental jurisdictions. All vessels affected by the proposed action are considered to be small entities under the current Small Business Administration definition of small fish-harvesting businesses, that is, their gross receipts do not exceed $4.0 million. This action has been certified as not expected to have significant impacts to a substantial number of small entities. As a result, an initial regulatory flexibility analysis is not required and none has been prepared.

# Appendix B. Presidential Proclamations

Federal Register
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# Presidential Documents

Title 3—

The President

**Proclamation 8335 of January 6, 2009**

## Establishment of the Marianas Trench Marine National Monument

**By the President of the United States of America**

**A Proclamation**

Over approximately 480 nautical miles, the Mariana Archipelago encompasses the 14 islands of the United States Commonwealth of the Northern Mariana Islands and the United States Territory of Guam that sit atop the Mariana Ridge in an area known as the Mariana Volcanic Arc. The Mariana Volcanic Arc is part of a subduction system in which the Pacific Plate plunges beneath the Philippine Sea Plate and into the Earth's mantle, creating the Mariana Trench. Six of the archipelago's islands have been volcanically active in historic times, and numerous seamounts along the Mariana Ridge are volcanically or hydrothermically active. The Mariana Trench is approximately 940 nautical miles long and 38 nautical miles wide within the United States Exclusive Economic Zone and contains the deepest known points in the global ocean.

The Mariana Volcanic Arc contains objects of scientific interest, including the largest active mud volcanoes on Earth. The Champagne vent, located at the Eifuku submarine volcano, produces almost pure liquid carbon dioxide. This phenomenon has only been observed at one other site in the world. The Sulfur Cauldron, a pool of liquid sulfur, is found at the Daikoku submarine volcano. The only other known location of molten sulfur is on Io, a moon of Jupiter. Unlike other reefs across the Pacific, the northernmost Mariana reefs provide unique volcanic habitats that support marine biological communities requiring basalt. Maug Crater represents one of only a handful of places on Earth where photosynthetic and chemosynthetic communities of life are known to come together.

The waters of the archipelago's northern islands are among the most biologically diverse in the Western Pacific and include the greatest diversity of seamount and hydrothermal vent life yet discovered. These volcanic islands are ringed by coral ecosystems with very high numbers of apex predators, including large numbers of sharks. They also contain one of the most diverse collections of stony corals in the Western Pacific. The northern islands and shoals in the archipelago have substantially higher large fish biomass, including apex predators, than the southern islands and Guam. The waters of Farallon de Pajaros (also known as Uracas), Maug, and Asuncion support some of the largest biomass of reef fishes in the Mariana Archipelago. These relatively pristine coral reef ecosystems are objects of scientific interest and essential to the long-term study of tropical marine ecosystems.

WHEREAS the submerged volcanic areas of the Mariana Ridge, the coral reef ecosystems of the waters surrounding the islands of Farallon de Pajaros, Maug, and Asuncion in the Commonwealth of the Northern Mariana Islands, and the Mariana Trench contain objects of scientific interest that are situated upon lands owned or controlled by the Government of the United States;

WHEREAS the United States continues to act in accordance with the balance of interests relating to traditional uses of the oceans recognizing freedom

of navigation and overflight and other internationally recognized lawful uses of the sea;

WHEREAS the islands, waters, and airspace of the Mariana Ridge are of particular importance to the national security of the United States;

WHEREAS section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C. 431) (the ''Antiquities Act'') authorizes the President, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon lands owned or controlled by the Government of the United States to be national monuments, and to 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;

WHEREAS it is in the public interest to preserve the known volcanic areas of the Mariana Ridge, the marine environment around the islands of Farallon de Pajaros, Maug, and Asuncion in the Commonwealth of the Northern Mariana Islands, and the Mariana Trench for the care and management of the scientific objects therein:

NOW, THEREFORE, I, GEORGE W. BUSH, President of the United States of America, by the authority vested in me by section 2 of the Antiquities Act do proclaim that there are hereby set apart and reserved as the Marianas Trench Marine National Monument (the ''monument'' or ''marine national monument'') for the purpose of protecting the objects identified above, all lands and interests in lands owned or controlled by the Government of the United States within the boundaries described below and depicted on the accompanying map entitled ''Marianas Trench Marine National Monument'' attached to and forming a part of this proclamation. The monument includes the waters and submerged lands of the three northernmost Mariana Islands (the ''Islands Unit'') and only the submerged lands of designated volcanic sites (the ''Volcanic Unit'') and the Mariana Trench (the ''Trench Unit'') to the extent described as follows: The seaward boundaries of the Islands Unit of the monument extend to the lines of latitude and longitude depicted on the accompanying map, which lie approximately 50 nautical miles from the mean low water line of Farallon de Pajaros (Uracas), Maug, and Asuncion. The inland boundary of the Islands Unit of the monument is the mean low water line. The boundary of the Trench Unit of the monument extends from the northern limit of the Exclusive Economic Zone of the United States in the Commonwealth of the Northern Mariana Islands to the southern limit of the Exclusive Economic Zone of the United States in Guam approximately following the points of latitude and longitude identified on the accompanying map. The boundaries of the Volcanic Unit of the monument include a circle drawn with a 1 nautical mile radius centered on each of the volcanic features identified on the accompanying map and its legend. The Federal land and interests in land reserved consists of approximately 95,216 square miles of submerged lands and waters of the Mariana Archipelago, which is the smallest area compatible with the proper care and management of the objects to be protected.

Submerged lands that by legislation are subsequently granted by the United States to the Commonwealth of the Northern Mariana Islands but remain controlled by the United States under the Antiquities Act may remain part of the monument, for coordination of management with the Government of the Commonwealth of the Northern Mariana Islands. Any submerged lands and interests in submerged lands within the monument not owned or controlled by the United States shall be reserved as a part of the monument upon acquisition of title or control by the United States.

**Management of the Marine National Monument**

The Secretaries of Commerce, through the National Oceanic and Atmospheric Administration, and the Interior, shall manage the monument pursuant to applicable legal authorities and in consultation with the Secretary of Defense.

The Secretary of the Interior shall have management responsibility for the monument, in consultation with the Secretary of Commerce, except that the Secretary of Commerce shall have the primary management responsibility, in consultation with the Secretary of the Interior, with respect to fishery-related activities regulated pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 *et seq.*) and any other applicable authorities. The Secretaries of the Interior and Commerce shall not allow or permit any appropriation, injury, destruction, or removal of any feature of this monument except as provided for by this proclamation or as otherwise provided for by law.

The Secretaries of the Interior and Commerce shall take appropriate action pursuant to their respective authorities under the Antiquities Act and the Magnuson-Stevens Fishery Conservation and Management Act, and such other authorities as may be available to implement this proclamation, to regulate fisheries, and to ensure proper care and management of the monument.

*Regulation of Scientific Exploration and Research*

Subject to such terms and conditions as the Secretary deems necessary for the care and management of the objects of this monument, the Secretary of the Interior may permit scientific exploration and research within the monument, including incidental appropriation, injury, destruction, or removal of features of this monument for scientific study, and the Secretary of Commerce may permit fishing within the monument for scientific exploration and research purposes to the extent authorized by the Magnuson-Stevens Fishery Conservation and Management Act. The prohibitions required by this proclamation shall not restrict scientific exploration or research activities by or for the Secretaries, and nothing in this proclamation shall be construed to require a permit or other authorization from the other Secretary for their respective scientific activities.

*Regulation of Fishing and Management of Fishery Resources*

Within the Islands Unit of the monument, the Secretary of Commerce shall prohibit commercial fishing. Subject to such terms and conditions as the Secretary of Commerce deems necessary for the care and management of the objects of the Islands Unit, the Secretary, consistent with Executive Order 12962 of June 7, 1995, as amended, shall ensure that sustenance, recreational, and traditional indigenous fishing shall be managed as a sustainable activity consistent with other applicable law and after due consideration with respect to traditional indigenous fishing of any determination by the Government of the Commonwealth of the Northern Mariana Islands.

*Monument Management Planning*

The Secretaries of the Interior and Commerce shall, within 2 years of the date of this proclamation, prepare management plans within their respective authorities and promulgate implementing regulations that address any further specific actions necessary for the proper care and management of the objects identified in this proclamation. In developing and implementing any management plans and any management rules and regulations, the Secretaries shall designate and involve as cooperating agencies the agencies with jurisdiction or special expertise, including the Department of Defense, the Department of State, and other agencies through scoping in accordance with the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*), its implementing regulations and with Executive Order 13352 of August 26, 2004, Facilitation of Cooperative Conservation, and shall treat as a cooperating agency the Government of the Commonwealth of the Northern Mariana Islands, consistent with these authorities. The monument management plans shall ensure that the monument will be administered in accordance with this proclamation, and shall, as appropriate to their respective authorities, provide for:

1. management of the Islands Unit of the monument, in consultation with the Government of the Commonwealth of the Northern Mariana Islands, including designation of specific roles and responsibilities and the means

of consultation on management decisions as appropriate, without affecting the respective authorities or jurisdictions of the Commonwealth of the Northern Mariana Islands or the Secretaries of the Interior or of Commerce;

2. public education programs and public outreach regarding the coral reef ecosystem and related marine resources and species of the monument and efforts to conserve them;

3. traditional access by indigenous persons, as identified by the Secretaries in consultation with the Government of the Commonwealth of the Northern Mariana Islands, for culturally significant subsistence, cultural and religious uses within the monument;

4. a program to assess and promote monument-related scientific exploration and research, tourism, and recreational and economic activities and opportunities in the Commonwealth of the Northern Mariana Islands;

5. a process to consider requests for recreational fishing permits in certain areas of the Islands Unit, based on an analysis of the likely effects of such fishing on the marine ecosystems of these areas, sound professional judgment that such fishing will not materially interfere with or detract from the fulfillment of the purposes of this proclamation, and the extent to which such recreational fishing shall be managed as a sustainable activity consistent with Executive Order 12962, as amended, and other applicable law; and

6. programs for monitoring and enforcement necessary to ensure that scientific exploration and research, tourism, and recreational and commercial activities do not degrade the monument's coral reef ecosystem or related marine resources or species or diminish the monument's natural character.

The management plans and their implementing regulations shall impose no restrictions on innocent passage in the territorial sea or otherwise restrict navigation, overflight, and other internationally recognized lawful uses of the sea, and shall incorporate the provisions of this proclamation regarding Armed Forces actions and compliance with international law.

This proclamation shall be applied in accordance with international law. No restrictions shall apply to or be enforced against a person who is not a citizen, national, or resident alien of the United States (including foreign flag vessels) unless in accordance with international law.

Nothing in this proclamation shall be deemed to diminish or enlarge the jurisdiction of the Commonwealth of the Northern Mariana Islands.

**Advisory Council**

The Secretaries of the Interior and Commerce, within 3 months of the date of this proclamation and after considering recommendations from the Governor of the Commonwealth of the Northern Mariana Islands, the Secretary of Defense, and the Secretary of Homeland Security, shall establish the Mariana Monument Advisory Council to provide advice and recommendations on the development of management plans and management of the monument. The Advisory Council shall consist of three officials of the Government of the Commonwealth of the Northern Mariana Islands and one representative each from the Department of Defense and the United States Coast Guard.

Members of the Advisory Council will be appointed for a term of 3 years by the Secretaries of the Interior and Commerce after nomination by the head of the pertinent executive branch agency or, with respect to the officials of the Government of the Commonwealth of the Northern Mariana Islands, by the Governor of the Commonwealth of the Northern Mariana Islands. The Advisory Council will adopt such procedures as it deems necessary to govern its activities. Each participating agency shall be responsible for the expenses of its representative and the Departments of the Interior and Commerce shall be equally responsible for the costs of the Advisory Council.

**Emergencies, National Security, and Law Enforcement Activities**

1. The prohibitions required by this proclamation shall not apply to activities necessary to respond to emergencies threatening life, property, or the environment, or to activities necessary for national security or law enforcement purposes.

2. Nothing in this proclamation shall limit agency actions to respond to emergencies posing an unacceptable threat to human health or safety or to the marine environment and admitting of no other feasible solution.

**Armed Forces Actions**

1. The prohibitions required by this proclamation shall not apply to activities and exercises of the Armed Forces (including those carried out by the United States Coast Guard).

2. The Armed Forces shall ensure, by the adoption of appropriate measures not impairing operations or operational capabilities, that its vessels and aircraft act in a manner consistent, so far as is reasonable and practicable, with this proclamation.

3. In the event of threatened or actual destruction of, loss of, or injury to a monument living marine resource resulting from an incident, including but not limited to spills and groundings, caused by a component of the Department of Defense or the United States Coast Guard, the cognizant component shall promptly coordinate with the Secretary of the Interior or Commerce, as appropriate, for the purpose of taking appropriate actions to respond to and mitigate any actual harm and, if possible, restore or replace the monument resource or quality.

4. Nothing in this proclamation or any regulation implementing it shall limit or otherwise affect the Armed Forces' discretion to use, maintain, improve, manage, or control any property under the administrative control of a Military Department or otherwise limit the availability of such property for military mission purposes.

This proclamation is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity, by any party against the United States, its agencies, instrumentalities, or entities, its officers, employees, agents, or any other person.

All Federal lands and interests in lands within the boundaries of this monument are hereby withdrawn from all forms of entry, location, selection, sale, or leasing or other disposition under the public land laws, to the extent that those laws apply.

The establishment of this monument is subject to valid existing rights.

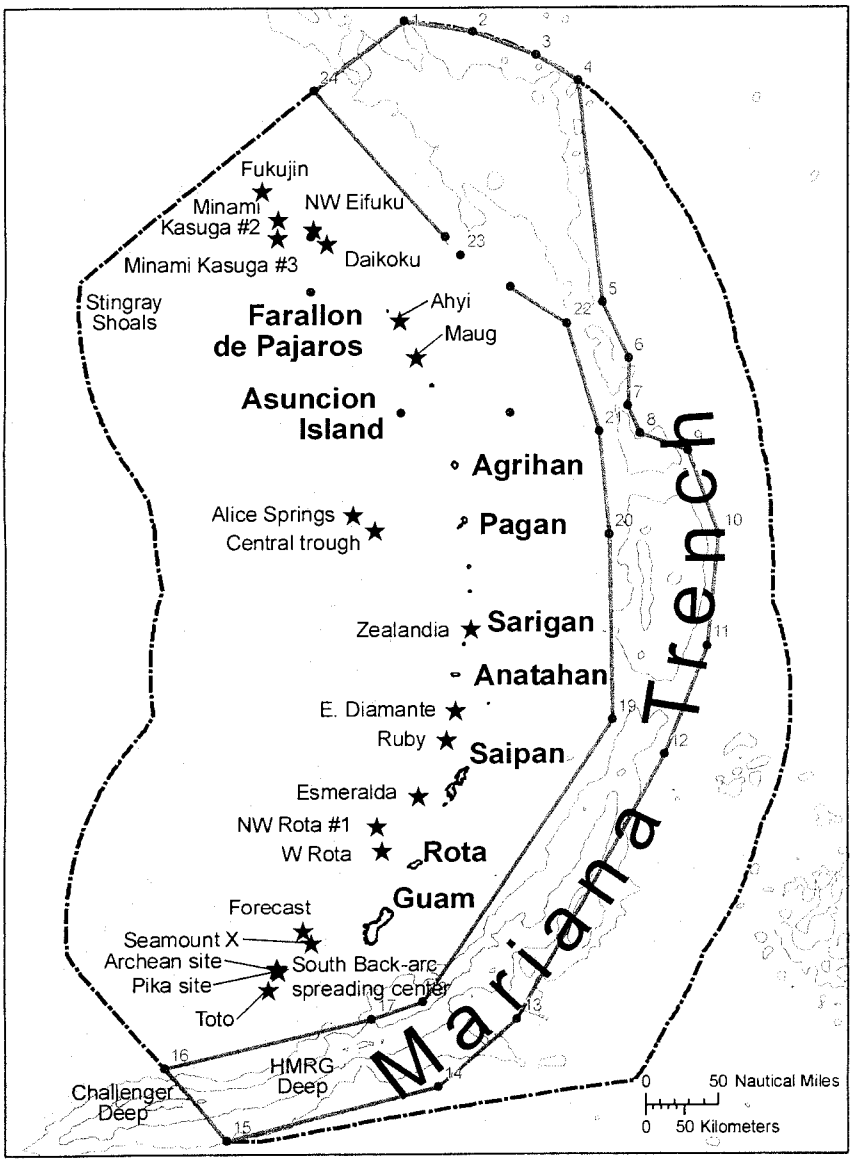
Nothing in this proclamation shall be deemed to revoke any existing withdrawal, reservation, or appropriation; however, the national monument shall be dominant over any other existing Federal withdrawal, reservation, or appropriation.

Warning is hereby given to all unauthorized persons not to appropriate, excavate, injure, destroy, or remove any feature of this monument and not to locate or settle upon any lands thereof.

IN WITNESS WHEREOF, I have hereunto set my hand this sixth day of January, in the year of our Lord two thousand nine, and of the Independence of the United States of America the two hundred and thirty-third.

Billing code 3195–W9–P

# Marianas Trench Marine National Monument




**Trench Unit**

| Id | Longitude | Latitude |
|---|---|---|
| 1 | 145° 5' 46" E | 23° 53' 35" N |
| 2 | 145° 52' 27.10" E | 23° 45' 50.54" N |
| 3 | 146° 36' 18.91" E | 23° 29' 18.33" N |
| 4 | 147° 5' 16.84" E | 23° 11' 43.92" N |
| 5 | 147° 22' 31.43" E | 20° 38' 41.35" N |
| 6 | 147° 40' 48.31" E | 19° 59' 23.30" N |
| 7 | 147° 39' 59.51" E | 19° 27' 2.96" N |
| 8 | 147° 48' 51.61" E | 19° 8' 18.74" N |
| 9 | 148° 21' 47.20" E | 18° 56' 6.46" N |
| 10 | 148° 42' 50.50" E | 17° 58' 2.20" N |
| 11 | 148° 34' 47.12" E | 16° 40' 53.86" N |
| 12 | 148° 5' 39.95" E | 15° 25' 51.09" N |
| 13 | 146° 23' 24.38" E | 12° 21' 38.38" N |
| 14 | 145° 28' 33.28" E | 11° 34' 7.64" N |
| 15 | 143° 3' 9" E | 10° 57' 30" N |
| 16 | 142° 19' 54.93" E | 11° 47' 24.83" N |
| 17 | 144° 42' 31.24" E | 12° 21' 24.65" N |
| 18 | 145° 17' 59.93" E | 12° 33' 5.35" N |
| 19 | 147° 29' 32.24" E | 15° 49' 25.53" N |
| 20 | 147° 27' 32.35" E | 17° 57' 52.76" N |
| 21 | 147° 20' 16.96" E | 19° 9' 19.41" N |
| 22 | 146° 57' 55.31" E | 20° 23' 58.80" N |
| 23 | 145° 44' 31.14" E | 21° 11' 14.60" N |
| 24 | 144° 5' 27.55" E | 23° 2' 28.67" N |

**Islands Unit**

| Id | Longitude | Latitude |
|---|---|---|
| 1 | 144° 1' 22.97" E | 21° 23' 42.40" N |
| 2 | 145° 33' 25.20" E | 21° 23' 42.40" N |
| 3 | 145° 44' 31.14" E | 21° 11' 14.60" N |
| 4 | 146° 18' 36.75" E | 20° 49' 17.46" N |
| 5 | 146° 18' 36.75" E | 19° 22' 0.00" N |
| 6 | 145° 3' 12.22" E | 19° 22' 0.00" N |
| 7 | 144° 1' 22.97" E | 20° 45' 44.11" N |

**Vents Unit**

| Volcano | Longitude | Latitude |
|---|---|---|
| Fukujin | 143° 27' 30" E | 21° 56' 30' N |
| Minami Kasuga #2 | 143° 38' 30" E | 21° 36' 36' N |
| NW Eifuku | 144° 2' 36" E | 21° 29' 15' N |
| Minami Kasuga #3 | 143° 38' 0" E | 21° 24' 0" N |
| Daikoku | 144° 11' 39" E | 21° 19' 27" N |
| Ahyi | 145° 1' 45" E | 20° 26' 15" N |
| Maug | 145° 13' 18" E | 20° 1' 15" N |
| Alice Springs | 144° 30' 0" E | 18° 12' 0" N |
| Central trough | 144° 45' 0" E | 18° 1' 0" N |
| Zealandia | 145° 51' 4" E | 16° 52' 57" N |
| E. Diamante | 145° 40' 47" E | 15° 56' 31" N |
| Ruby | 145° 34' 24" E | 15° 36' 15" N |
| Esmeralda | 145° 14' 45" E | 14° 57' 30" N |
| NW Rota #1 | 144° 46' 30" E | 14° 36' 0" N |
| W Rota | 144° 50' 0" E | 14° 19' 30" N |
| Forecast | 143° 55' 12" E | 13° 23' 30' N |
| Seamount X | 144° 1' 0" E | 13° 14' 48" N |
| South Backarc | 143° 37' 8" E | 12° 57' 12' N |
| Archaean site | 143° 37' 55" E | 12° 56' 23' N |
| Pika site | 143° 38' 55" E | 12° 55' 7" N |
| Toto | 143° 31' 42" E | 12° 42' 48' N |

Sources:
NOAA Coral Reef Conservation Program
NMFS Coral Reef Ecosystem Division
NESDIS NGDC
NOS/CCMA Biogeography Branch
OAR Pacific Marine Environmental Lab

-10000 m
-8000 m
-6000 m
-4000 m
-2000 m

★ Active Hydrothermal Submarine Volcanoes
Trench Unit (59,732 nm²)
Islands Unit (12,388 nm²)
EEZ

[FR Doc. E9–496

Filed 1–9–09; 8:45 am]

BILLING CODE 4310–10–C

Federal Register
Vol. 74, No. 7
Monday, January 12, 2009

# Presidential Documents

Title 3—

The President

**Proclamation 8336 of January 6, 2009**

## Establishment of the Pacific Remote Islands Marine National Monument

**By the President of the United States of America**

**A Proclamation**

The Pacific Remote Islands area consists of Wake, Baker, Howland, and Jarvis Islands, Johnston Atoll, Kingman Reef, and Palmyra Atoll, which lie to the south and west of Hawaii. With the exception of Wake Island, these islands are administered as National Wildlife Refuges by the United States Fish and Wildlife Service of the Department of the Interior. These refuges are an important part of the most widespread collection of marine- and terrestrial-life protected areas on the planet under a single country's jurisdiction. They sustain many endemic species including corals, fish, shellfish, marine mammals, seabirds, water birds, land birds, insects, and vegetation not found elsewhere.

Wake Island, to the west of Honolulu, Hawaii, is the northernmost atoll in the Marshall Islands geological ridge and perhaps the oldest living atoll in the world. Though it was substantially modified by the United States to create a military base before and after World War II, its major habitats are the three low coral islands consisting of shells, coral skeletons, and sand, supporting atoll vegetation adapted to arid climate. Wake Island supports 12 species of resident nesting seabirds and 6 species of migratory shorebirds, including 2 species of tropicbirds, 3 species of boobies, Great Frigatebird, Sooty Tern, Brown Noddy, and Wedge-tailed Shearwater. Black-footed Albatross and Laysan Albatross recently recolonized Wake Island, making it one of the few northern albatross colonies outside the Hawaiian archipelago.

Shallow coral reefs thrive around the perimeter of Wake Island. Fish populations are abundant and support at least 323 species, including large populations of the Napoleon wrasse (*Chelinus*), sharks of several species, and large schools of the Bumphead parrotfish (*Bolbometapon*), all of which are globally depleted. Beyond the shallow reefs, the outer reef slope descends sharply to great depths.

Baker, Howland, and Jarvis Islands were first formed as fringing reefs around islands formed by Cretaceous-era volcanoes (approximately 120–75 million years ago). As the volcanoes subsided, the coral reefs grew upward, maintaining proximity to the sea surface. These low coral islands consist of coral rock, shells, and sand that support trees, shrubs, and grasses adapted to the arid climate at the equator. All three are surrounded by shallow coral reefs to depths of 100 meters, below which the reef slope descends steeply to great depths. Deep coral forests occur below photic zones of all three islands at depths below 200 meters, especially at Jarvis where surveys have revealed living colonies of precious and ancient gold coral up to 5,000 years old.

The waters surrounding Baker, Howland, and Jarvis Islands have fish biomass double that of the Papahanaumokuakea Marine National Monument, and 16 times that of the main Hawaiian Islands, due to the Equatorial Undercurrent that moves from west to east along the equator, creating localized nutrient-rich upwellings in shallows next to the islands. These are three

of only six islands in the entire Pacific Ocean where this phenomenon is possible. These islands are high in coral cover and biodiversity and are predator-dominated systems. Their biomass of top predators exceeds that of the Great Barrier Reef or Kenyan Marine Protected Areas. The islands now host about a dozen nesting bird species including several nesting and migratory bird species that are of conservation significance. Jarvis alone has nearly 3 million pairs of Sooty Terns. There are about 300 fish species found off the islands. Giant clams (*Tridacna*), Napoleon wrasses, and Bumphead parrotfish are common, and sharks of many species are especially abundant at Jarvis and commonly larger there than elsewhere. Endangered hawksbill turtle and threatened green turtles forage in nearshore waters. All three islands afford unique opportunities to conduct climate change research at the equator, far from population centers. The coral skeletons there have recorded the earth's climatic history for many millions of years.

Johnston Atoll, the northernmost island in the island chain, is an ancient atoll and probably one of the oldest in the Pacific Ocean. Unlike most atolls, it does not have a surrounding barrier reef but has a semicircular emergent reef around the north and western margins of the island. Four major habitats characterize Johnston: low-lying islets consisting of the remains of corals and shells, shallow coral reefs to depths of 150 meters, deeper reefs to depths of 1,000 meters or more, and the slope of the ancient volcano on which the island rests.

Johnston is a genetic and larval stepping stone from the Remote Islands to the Hawaiian Islands for invertebrates, other reef fauna, corals, and dolphins. Despite its isolation, Johnston supports thriving communities of Table corals (*Acropora*) and a total of 45 coral species, including a dozen species confined to the Hawaiian and northern Line Islands. Some 300 species of reef fish are at Johnston, including the endemic Nahacky's pygmy angelfish. Many threatened, endangered, and depleted species thrive there, including the green turtle, hawksbill turtle, pearl oyster, giant clams, reef sharks, groupers, humphead wrasse, bumphead parrotfish, whales, and dolphins. Endangered Hawaiian Monk Seals occasionally visit the atoll. Deep diving submersible surveys have revealed that Johnston supports the deepest reef building corals (*Leptoseris*) on record and large populations of hydrozoan corals (*Millepora, Distichopora*, *Staylaster*). Land areas support large populations of migratory shorebirds and resident seabird species, including populations of regional, national, or international significance: Wedge-tailed Shearwaters, Christmas Shearwaters, Red-tailed Tropicbirds, Brown Boobies, Great Frigatebirds, Gray-backed Terns, and White Terns. Approximately 200 threatened Green turtles forage at Johnston. The surrounding waters are used by six depleted or endangered listed cetacean species: Sperm, Blue, Sei, Humpback, and North Pacific Right whales. Spinner dolphins are abundant, and endangered Humpback whales may calve there.

Palmyra Atoll is a classic Darwinian atoll that formed atop a sinking Cretaceous-era volcano. Kingman Reef formed in the same manner but is considered an atoll reef because it lacks permanent fast land areas or islands. Kingman Reef contains a sheltered lagoon that served as a way station for flying boats on Hawaii-to-American Samoa flights during the late 1930s. There are no terrestrial plants on the reef, which is frequently awash, but it does support abundant and diverse marine fauna and flora. Palmyra Atoll is managed by the United States Fish and Wildlife Service as a wildlife refuge. In 2001, the Secretary of the Interior established National Wildlife Refuges at Palmyra Atoll and Kingman Reef.

Palmyra Atoll and Kingman Reef are known to be among the most pristine coral reefs in the world, with a fully structured inverted food web. Kingman Reef is the most pristine of any reef under U.S. jurisdiction. They are ideal laboratories for assessing effects of climate change without the difficulty of filtering anthropogenic impacts. Both Palmyra Atoll and Kingman Reef support higher levels of coral and other cnidarian species diversity (180–190 species) than any other atoll or reef island in the central Pacific, twice

as many as are found in Hawaii or Florida. Palmyra atoll has one of the best remaining examples of Pisonia grandis forest found in the Pacific region. This forest type has been lost or severely degraded over much of its range due to increased human population and development. Fish species diversity at Palmyra (418 species) is higher than, while that of Kingman (297 species) is comparable to, that of the other remote Pacific refuges. Many threatened, endangered, and depleted species thrive there, including the green and hawksbill turtle, pearl oyster, giant clams (the highest concentration in the Pacific Remote Island Area), reef sharks, Coconut crabs, groupers, humphead and Napoleon wrasse, bumphead parrotfish, and dolphins. Significant numbers of threatened green turtles forage at both atolls, especially at Palmyra; endangered Hawksbill sea turtles forage at both atolls. Large schools of rare Melon-headed whales reside off both atolls. A possibly new species of beaked whale was recently described from 2 specimens stranded at Palmyra and 1 at Christmas Island. Palmyra supports 11 nesting seabird species including the third-largest Red-footed Booby colony in the world. Large numbers of Bristle-thighed Curlews, a migratory shorebird of conservation significance, winter at Palmyra.

WHEREAS Wake, Baker, Howland, and Jarvis Islands, Johnston Atoll, Kingman Reef, and Palmyra Atoll and their surrounding waters contain objects of historic or scientific interest that are situated upon lands owned or controlled by the Government of the United States;

WHEREAS the Department of Defense has historically maintained facilities, defensive areas, and airspace reservations at Wake Island and Johnston Atoll;

WHEREAS the United States continues to act in accordance with the balance of interests relating to traditional uses of the oceans recognizing freedom of navigation and overflight and other internationally recognized lawful uses of the sea;

WHEREAS section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C. 431) (the ''Antiquities Act'') authorizes the President, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon lands owned or controlled by the Government of the United States to be national monuments, and to 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;

WHEREAS it is in the public interest to preserve the marine environment around the islands of Wake, Baker, Howland, and Jarvis Islands, Johnston Atoll, Kingman Reef, and Palmyra Atoll for the care and management of the historic and scientific objects therein:

NOW, THEREFORE, I, GEORGE W. BUSH, President of the United States of America, by the authority vested in me by section 2 of the Antiquities Act, do proclaim that there are hereby set apart and reserved as the Pacific Remote Islands Marine National Monument (the ''monument'' or ''marine national monument'') for the purpose of protecting the objects identified above, all lands and interests in lands owned or controlled by the Government of the United States within the boundaries described below and depicted on the accompanying maps entitled ''Pacific Remote Islands Marine National Monument'' attached to and forming a part of this proclamation. The monument includes the waters and submerged and emergent lands of the Pacific Remote Islands to the lines of latitude and longitude depicted on the accompanying maps, which lie approximately 50 nautical miles from the mean low water lines of Wake, Baker, Howland, and Jarvis Islands, Johnston Atoll, Kingman Reef, and Palmyra Atoll. The Federal land and interests in land reserved consists of approximately 86,888 square miles, which is the smallest area compatible with the proper care and management of the objects to be protected.

All Federal lands and interests in lands within the boundaries of this monument are hereby withdrawn from all forms of entry, location, selection, sale, leasing, or other disposition under the public land laws to the extent that those laws apply. Lands and interests in lands within the monument not owned or controlled by the United States shall be reserved as a part of the monument upon acquisition of title or control by the United States.

**Management of the Marine National Monument**

The Secretary of the Interior, in consultation with the Secretary of Commerce, shall have responsibility for management of the monument, including out to 12 nautical miles from the mean low water lines of Wake, Baker, Howland, and Jarvis Islands, Johnston Atoll, Kingman Reef, and Palmyra Atoll, pursuant to applicable legal authorities. However, the Secretary of Defense shall continue to manage Wake Island, according to the terms and conditions of an Agreement between the Secretary of the Interior and Secretary of the Air Force, unless and until such Agreement is terminated. The Secretary of Commerce, through the National Oceanic and Atmospheric Administration, and in consultation with the Secretary of the Interior, shall have primary responsibility for management of the monument seaward of the area 12 nautical miles of the mean low water lines of Wake, Baker, Howland, and Jarvis Islands, Johnston Atoll, Kingman Reef, and Palmyra Atoll, with respect to fishery-related activities regulated pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 *et seq.*) and any other applicable legal authorities. The Secretaries of Commerce and the Interior shall not allow or permit any appropriation, injury, destruction, or removal of any feature of this monument except as provided for by this proclamation and shall prohibit commercial fishing within boundaries of the monument.

The Secretaries of the Interior and of Commerce shall take appropriate action pursuant to their respective authorities under the Antiquities Act and the Magnuson-Stevens Fishery Conservation and Management Act, and such other authorities as may be available to implement this proclamation, to regulate fisheries, and to ensure proper care and management of the monument.

*Regulation of Scientific Exploration and Research*

Subject to such terms and conditions as the respective Secretary deems necessary for the care and management of the objects of this monument, the Secretary of the Interior may permit scientific exploration and research within the monument, including incidental appropriation, injury, destruction, or removal of features of this monument for scientific study, and the Secretary of Commerce may permit fishing within the monument for scientific exploration and research purposes to the extent authorized by the Magnuson-Stevens Fishery Conservation and Management Act. The prohibitions required by this proclamation shall not restrict scientific exploration or research activities by or for the Secretaries, and nothing in this proclamation shall be construed to require a permit or other authorization from the other Secretary for their respective scientific activities.

*Regulation of Fishing and Management of Fishery Resources*

The respective Secretaries may permit noncommercial fishing upon request, at specific locations in accordance with this proclamation. Noncommercial fishing opportunities currently allowed by the U.S. Fish and Wildlife Service at Palmyra Atoll may continue unless the Secretary of the Interior determines such fishing would not be compatible with the purposes of the Palmyra Atoll National Wildlife Refuge. The Secretary shall provide a process to ensure that recreational fishing shall be managed as a sustainable activity in certain areas of the monument, consistent with Executive Order 12962 of June 7, 1995, as amended, and other applicable law.

*Monument Management Planning*

The Secretaries of the Interior and Commerce shall, within 2 years of the date of this proclamation, prepare management plans within their respective

authorities and promulgate implementing regulations that address any further specific actions necessary for the proper care and management of the objects identified in this proclamation at Baker, Howland, and Jarvis Islands, Kingman Reef, and Palmyra Atoll. The Secretaries shall revise and update the management plans as necessary. The Secretary of the Interior shall revise the management plan to incorporate measures for the management of Johnston Atoll within 2 years of the date that the Department of Defense terminates its use of Johnston Atoll. If the Secretary of the Air Force terminates the Agreement regarding its use of Wake Island, the Secretary of the Interior shall revise the management plan to incorporate Wake Island management within 2 years of the date that the Air Force terminates its use of Wake Island. In developing and implementing any management plans and any management rules and regulations, the Secretaries shall consult and designate and involve as cooperating agencies the agencies with jurisdiction or special expertise, including the Department of Defense, in accordance with the National Environmental Policy Act (42 U.S.C. 4321 *et seq.,*) its implementing regulations, and with Executive Order 13352, of August 26, 2004, Facilitation of Cooperative Conservation.

The management plans and their implementing regulations shall impose no restrictions on innocent passage in the territorial sea or otherwise restrict navigation and overflight and other internationally recognized lawful uses of the sea in the monument and shall incorporate the provisions of this proclamation regarding Armed Forces actions and compliance with international law.

This proclamation shall be applied in accordance with international law. No restrictions shall apply to or be enforced against a person who is not a citizen, national, or resident alien of the United States (including foreign flag vessels) unless in accordance with international law.

**Emergencies, National Security, and Law Enforcement Activities**

1. The prohibitions required by this proclamation shall not apply to activities necessary to respond to emergencies threatening life, property, or the environment, or to activities necessary for national security or law enforcement purposes.

2. Nothing in this proclamation shall limit agency actions to respond to emergencies posing an unacceptable threat to human health or safety or to the marine environment and admitting of no other feasible solution.

**Armed Forces Actions**

1. The prohibitions required by this proclamation shall not apply to activities and exercises of the Armed Forces (including those carried out by the United States Coast Guard).

2. The Armed Forces shall ensure, by the adoption of appropriate measures not impairing operations or operational capabilities, that its vessels and aircraft act in a manner consistent, so far as is reasonable and practicable, with this proclamation.

3. In the event of threatened or actual destruction of, loss of, or injury to a monument resource or quality resulting from an incident, including but not limited to spills and groundings, caused by a component of the Department of Defense or the United States Coast Guard, the cognizant component shall promptly coordinate with the Secretary of the Interior or Commerce, as appropriate, for the purpose of taking appropriate actions to respond to and mitigate any actual harm and, if possible, restore or replace the monument resource or quality.

4. Nothing in this proclamation or any regulation implementing it shall limit or otherwise affect the Armed Forces' discretion to use, maintain, improve, manage, or control any property under the administrative control of a Military Department or otherwise limit the availability of such property for military mission purposes, including, but not limited to, defensive areas and airspace reservations.

The establishment of this monument is subject to valid existing rights.

This proclamation is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity, by any party against the United States, its agencies, instrumentalities, or entities, its officers, employees, agents, or any other person.

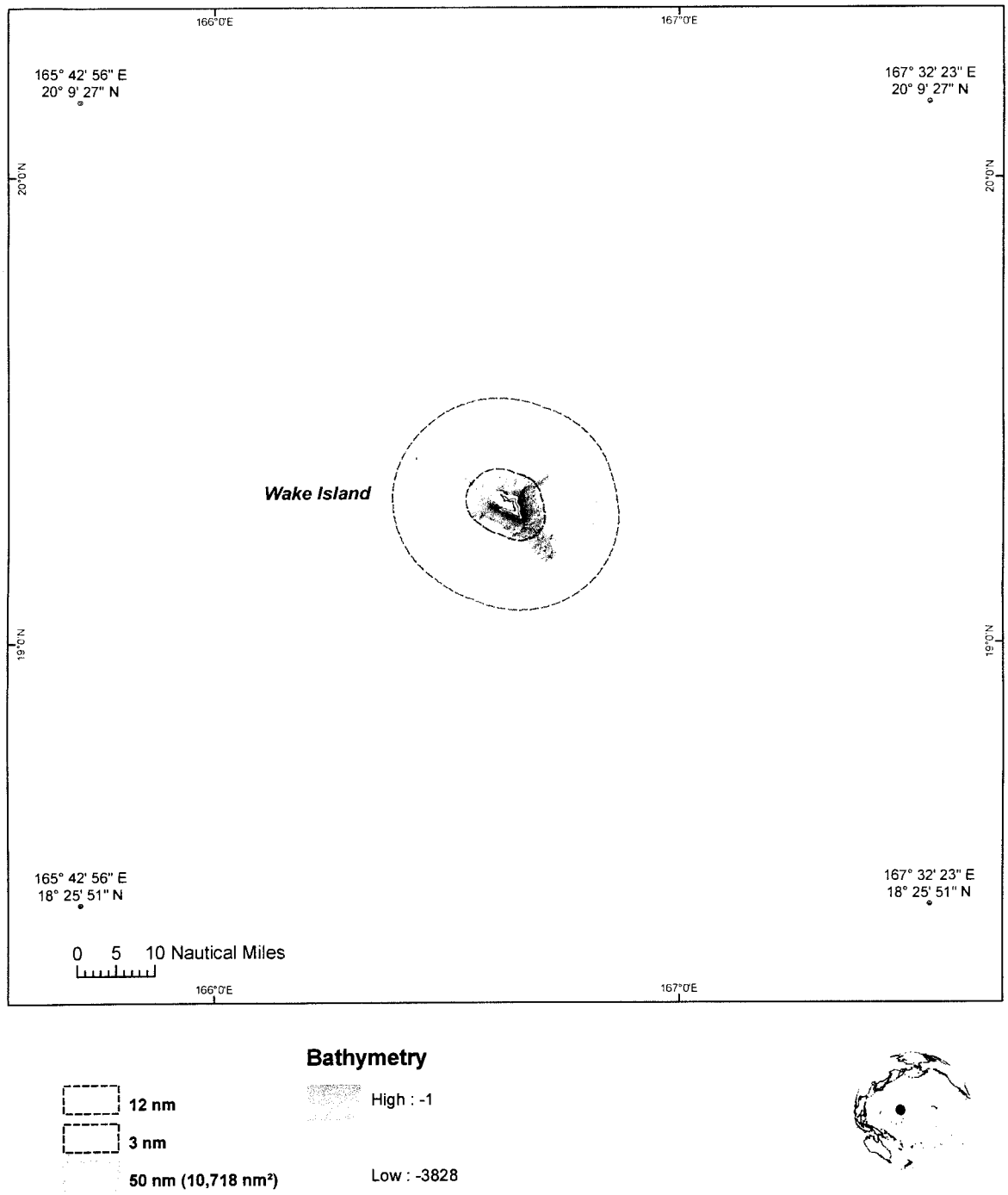
Nothing in this proclamation shall be deemed to revoke any existing withdrawal, reservation, or appropriation; however, the national monument shall be dominant over any other existing federal withdrawal, reservation, or appropriation.

Warning is hereby given to all unauthorized persons not to appropriate, excavate, injure, destroy, or remove any feature of this monument and not to locate or settle upon any lands thereof.

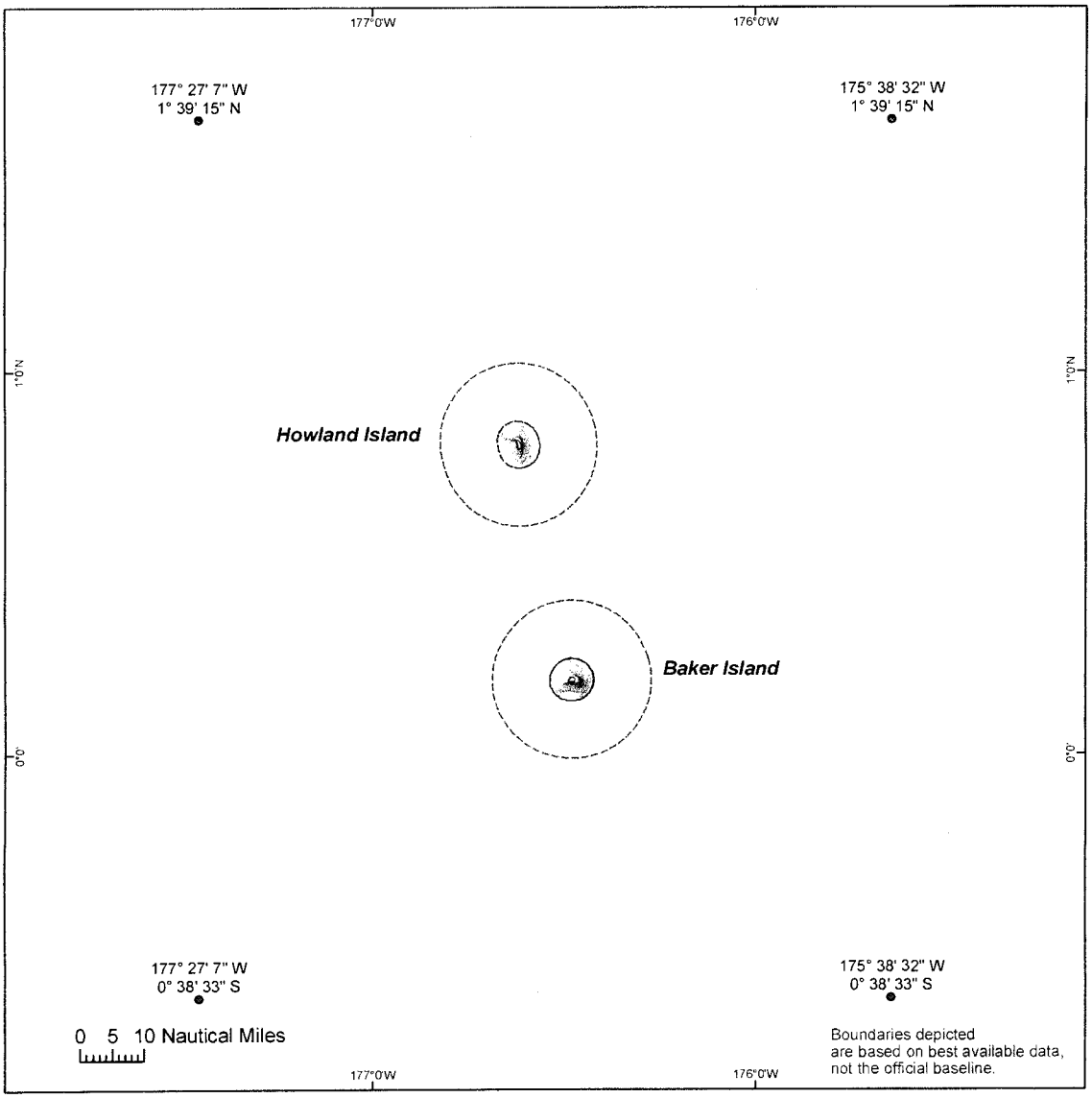
IN WITNESS WHEREOF, I have hereunto set my hand this sixth day of January, in the year of our Lord two thousand nine, and of the Independence of the United States of America the two hundred and thirty-third.

Billing code 3195–W9–P

# Pacific Remote Islands Marine National Monument



# Pacific Remote Islands Marine National Monument




**Bathymetry**

12 nm

3 nm

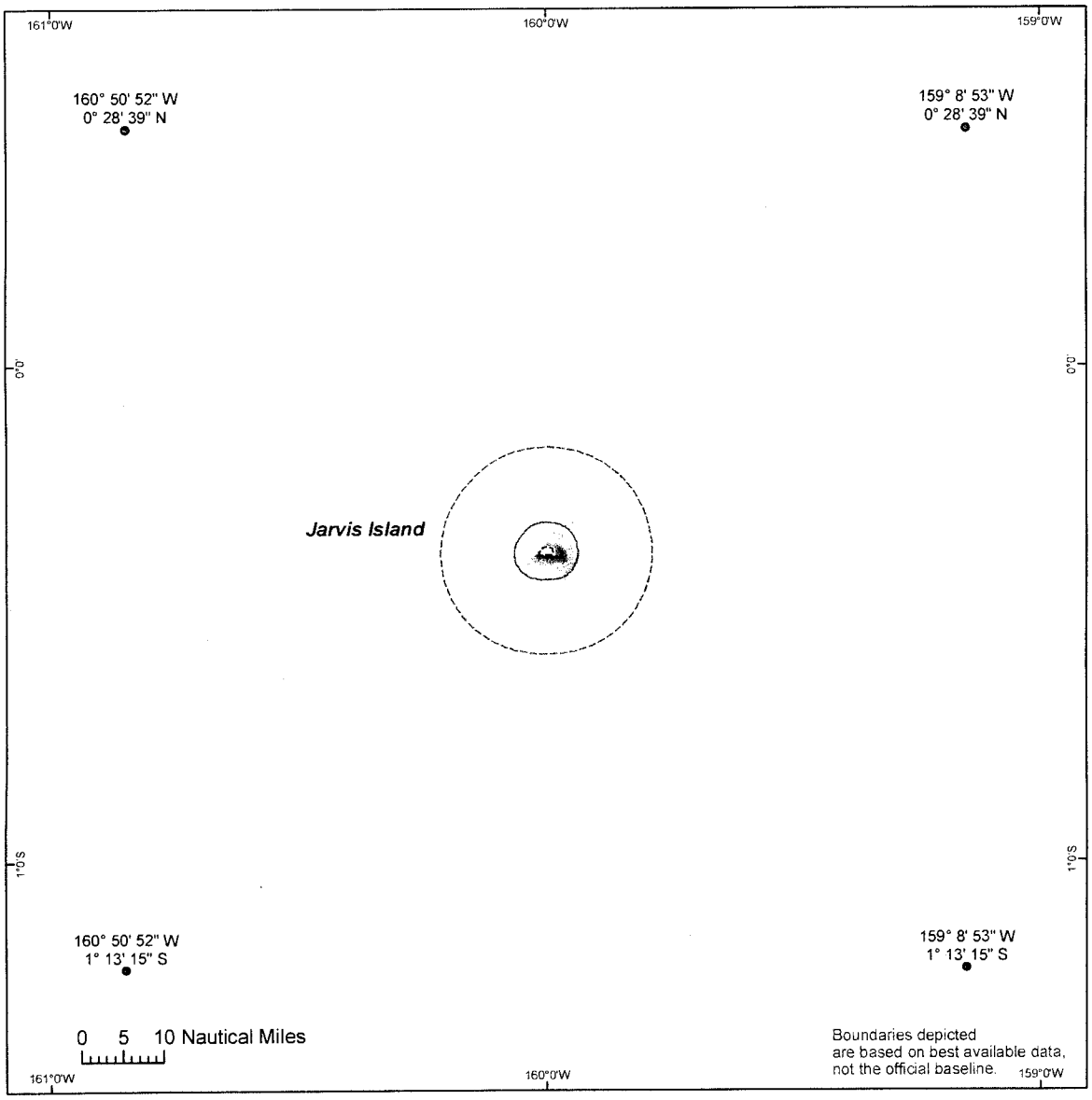
50 nm (15,531nm²)

**Value**

High : -4

Low : -4726

# Pacific Remote Islands Marine National Monument




**Bathymetry**

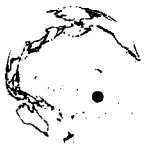
12 nm

3 nm

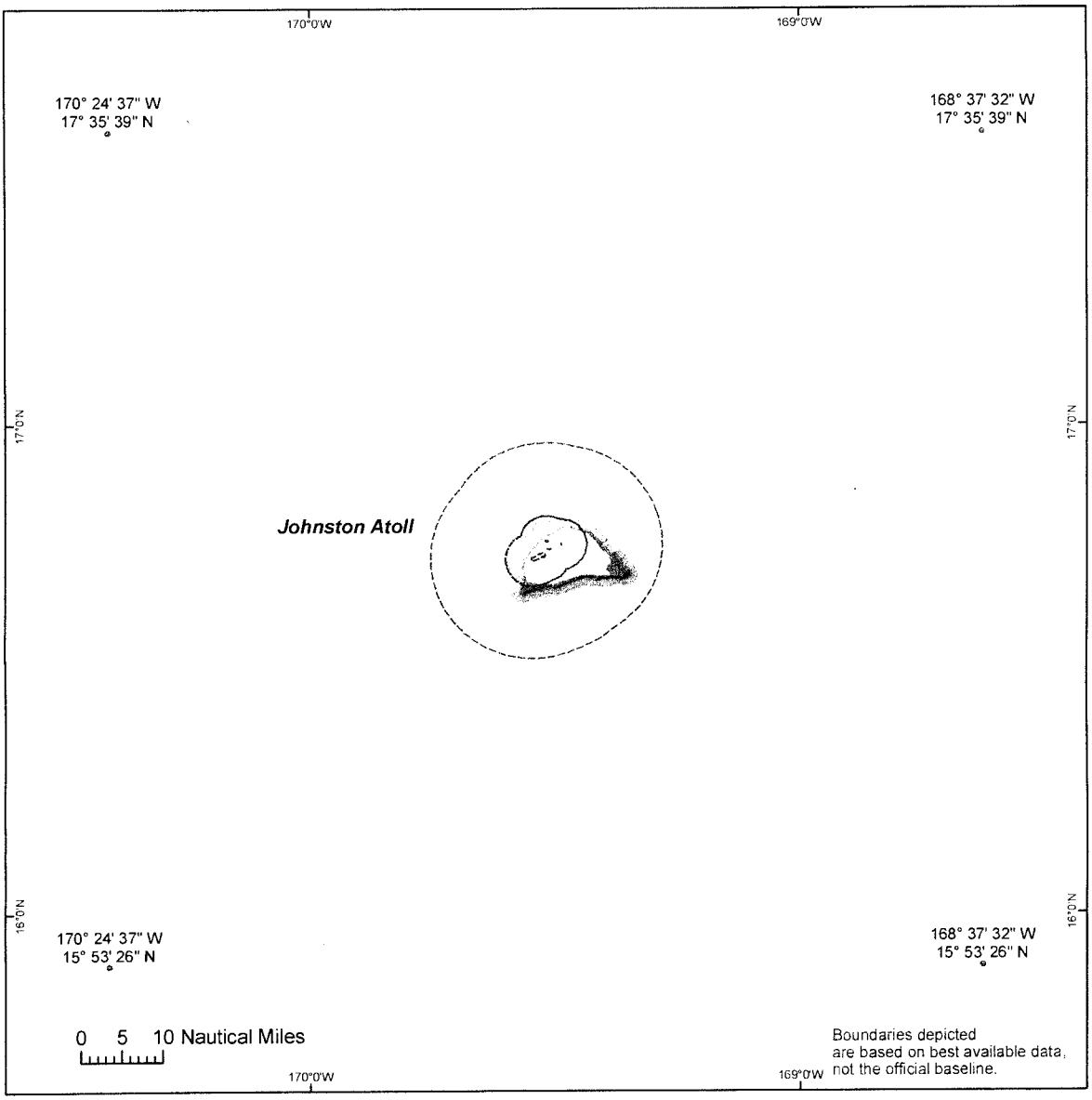
50 nm (10,433 nm²)

High : -3

Low : -3682



# Pacific Remote Islands Marine National Monument

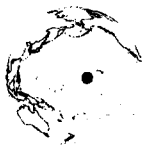



**Buffer**

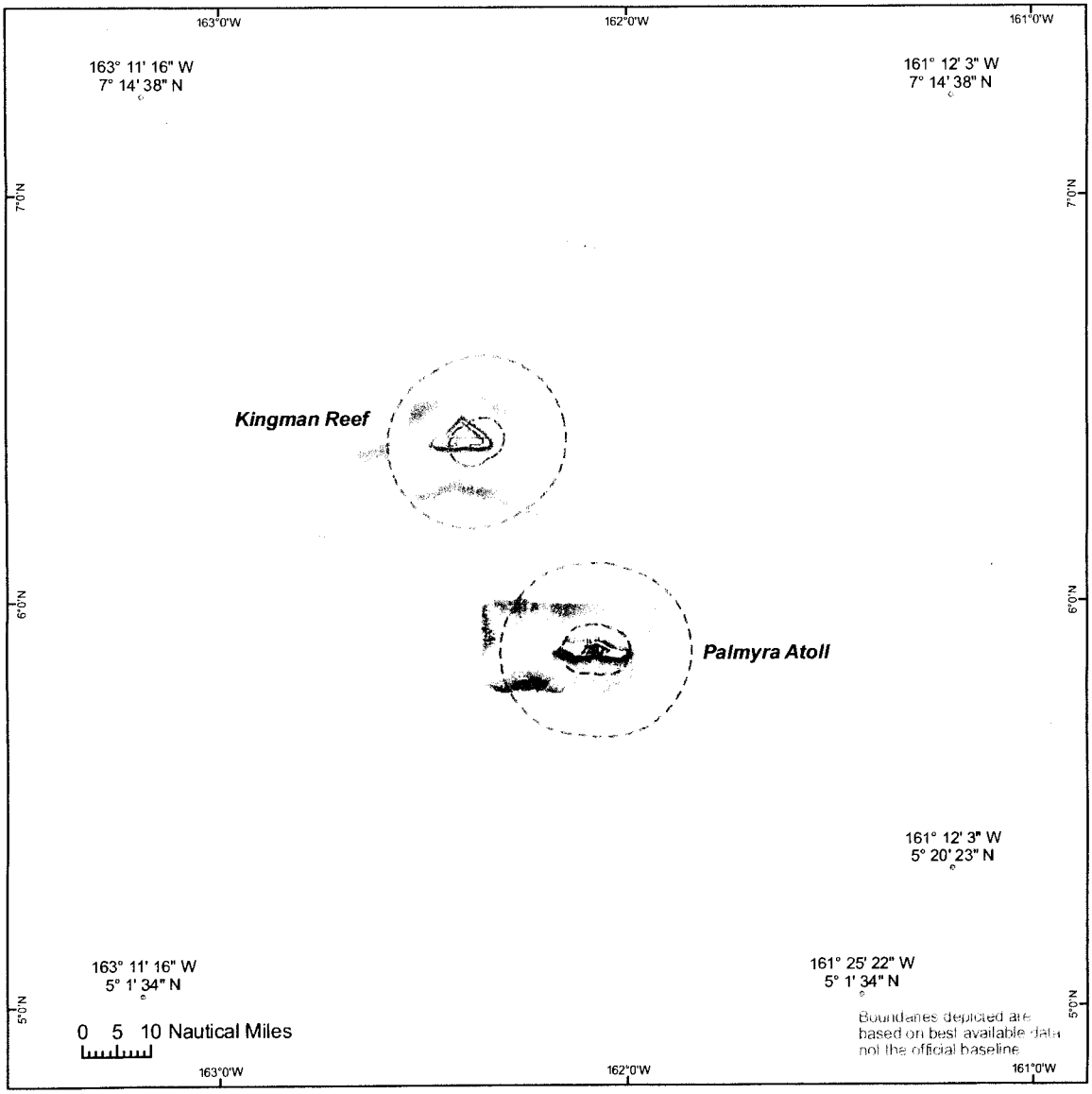
- 12 nm
- 3 nm
- 50 nm (10,513 nm²)

**Bathymetry**

- High : -5
- Low : -4155



# Pacific Remote Islands Marine National Monument




**Bathymetry**

12 nm

3 nm

50 nm (15,627 nm²)

EEZ

High : -2

Low : -3500

[FR Doc. E9–500

Filed 1–9–09; 8:45 am]

Billing code 4310–10–C

Federal Register
Vol. 74, No. 7
Monday, January 12, 2009

# Presidential Documents

Title 3—

The President

## Proclamation 8337 of January 6, 2009

## Establishment of the Rose Atoll Marine National Monument

**By the President of the United States of America**

**A Proclamation**

In the Pacific Ocean approximately 130 nautical miles east-southeast of Pago Pago Harbor, American Samoa, lies Rose Atoll—the easternmost Samoan island and the southernmost point of the United States. This small atoll, which includes the Rose Atoll National Wildlife Refuge with about 20 acres of land and 1,600 acres of lagoon, remains one of the most pristine atolls in the world. The lands, submerged lands, waters, and marine environment around Rose Atoll support a dynamic reef ecosystem that is home to a very diverse assemblage of terrestrial and marine species, many of which are threatened or endangered.

One of the most striking features of Rose Atoll is the pink hue of fringing reef caused by the dominance of coralline algae, which is the primary reef-building species. Though there are roughly 100 species of stony corals, the shallow reefs are dominated by crustose coralline algae, making them distinctive and quite different from those found at other Samoan islands. The marine area provides isolated, unmolested nesting grounds for green and hawksbill turtles and has the largest number of nesting turtles in American Samoa. Its waters are frequented by numerous large predators: whitetip reef sharks, blacktip reef sharks, gray reef sharks, snappers, jacks, groupers, and barracudas. Species that have faced depletion elsewhere, some of which have declined worldwide by as much as 98 percent, are found in abundance at Rose Atoll, including giant clams, Maori wrasse, large parrotfishes, and blacktip, whitetip, and gray reef sharks. Humpback whales, pilot whales, and the porpoise genus Stenella have all been spotted at Rose Atoll. There are 272 species of reef fish, with seven species first described by scientists at Rose and dozens more new species discovered on the first deep water dive to 200 meters. Recent submersible dives around Rose Atoll have revealed abundant marine life, deep sea coral forests, and several new fish and invertebrate species.

Rose Atoll supports most of the seabird population of American Samoa, including 12 federally protected migratory seabirds, five species of federally protected shorebirds, and a migrant forest bird, the long-tailed cuckoo. Rare species of nesting petrels, shearwaters, and terns are thriving at Rose Atoll and increasing in number. The atoll is known to Samoans, who have periodically visited over the past millennium, as ''Nu'u O Manu'' (''Village of seabirds''). It is believed that Polynesians have harvested at Rose Atoll for millennia and several species, such as the giant clam, were used for cultural celebrations and events. Few relatively undisturbed islands remain in the world and Rose Atoll is one of the last remaining refuges for the seabird and turtle species of the Central Pacific. Threatened Pisonia atoll forest trees are also found at Rose Atoll.

WHEREAS the lands, submerged lands, and waters of and marine environment around Rose Atoll contain objects of historic or scientific interest that are situated upon lands owned or controlled by the Government of the United States;

WHEREAS the United States continues to act in accordance with the balance of interests relating to traditional uses of the oceans recognizing freedom

of navigation and overflight and other internationally recognized lawful uses of the sea;

WHEREAS section 2 of the Act of June 8, 1906 (34 Stat. 225, 16 U.S.C. 431) (the ''Antiquities Act'') authorizes the President, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon lands owned or controlled by the Government of the United States to be national monuments, and to 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;

WHEREAS it is in the public interest to preserve the lands, submerged lands and waters of, and marine environment around Rose Atoll as necessary for the care and management of the historic and scientific objects therein:

NOW, THEREFORE, I, GEORGE W. BUSH, President of the United States of America, by the authority vested in me by section 2 of the Antiquities Act, do proclaim that there are hereby set apart and reserved as the Rose Atoll Marine National Monument (the ''monument'' or ''marine national monument'') for the purpose of protecting the objects described in the above preceding paragraphs, all lands and interests in lands owned or controlled by the Government of the United States within the boundaries that lie approximately 50 nautical miles from the mean low water line of Rose Atoll as depicted on the accompanying map entitled ''Rose Atoll Marine National Monument'' attached to and forming a part of this proclamation. The Federal land and interests in land reserved consists of approximately 13,451 square miles of emergent and submerged lands and waters of and around Rose Atoll in American Samoa, which is the smallest area compatible with the proper care and management of the objects to be protected.

All Federal lands and interests in lands within the boundaries of this monument are hereby withdrawn from all forms of entry, location, selection, sale, or leasing or other disposition under the public land laws to the extent that those laws apply.

**Management of the Marine National Monument**

The Secretary of the Interior shall have management responsibility for the monument, including Rose Atoll National Wildlife Refuge, in consultation with the Secretary of Commerce, except that the Secretary of Commerce, through the National Oceanic and Atmospheric Administration, shall have the primary management responsibility regarding the management of the marine areas of the monument seaward of mean low water, with respect to fishery-related activities regulated pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801 *et seq.*), and any other applicable authorities. The Secretary of Commerce shall initiate the process to add the marine areas of the monument to the Fagatele Bay National Marine Sanctuary in accordance with the National Marine Sanctuaries Act (16 U.S.C. 1431 *et seq.*), including its provision for consultation with an advisory council, to further the protection of the objects identified in this proclamation. In developing and implementing any management plans and any management rules and regulations, the Secretary of Commerce shall consult with the Secretary of the Interior and shall designate and involve as cooperating agencies the agencies with jurisdiction or special expertise, including the Department of State, the Department of Defense, and other agencies through scoping in accordance with the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*), its implementing regulations and with Executive Order 13352 of August 26, 2004, Facilitation of Cooperative Conservation, and shall treat as a cooperating agency the Government of American Samoa, consistent with these authorities.

The Secretary of the Interior shall continue to manage the Rose Atoll National Wildlife Refuge consistent with the protection of the objects identified in this proclamation. The Secretary of the Interior shall, in developing any

management plans and any management rules and regulations governing the Rose Atoll National Wildlife Refuge, comply with the National Environmental Policy Act and consult with the Secretary of Commerce.

For the purposes of protecting the objects identified above, the Secretaries of the Interior and Commerce, respectively, shall not allow or permit any appropriation, injury, destruction, or removal of any feature of this monument except as provided for by this proclamation or as otherwise provided for by law.

*Regulation of Scientific Exploration and Research*

Subject to such terms and conditions as the Secretaries deem necessary for the care and management of the objects of this monument, the Secretary of the Interior may permit scientific exploration and research within the monument, including incidental appropriation, injury, destruction, or removal of features of this monument for scientific study, and the Secretary of Commerce may permit fishing within the monument for scientific exploration and research purposes to the extent authorized by the Magnuson-Stevens Fishery Conservation and Management Act. The prohibitions required by this proclamation shall not restrict scientific exploration or research activities by or for the Secretaries, and nothing in this proclamation shall be construed to require a permit or other authorization from the other Secretary for their respective scientific activities.

*Regulation of Fishing and Management of Fishery Resources*

The Secretaries shall prohibit commercial fishing within the monument. Subject to such terms and conditions as the Secretaries deem necessary for the care and management of the objects of this monument, the Secretaries may permit noncommercial and sustenance fishing or, after consultation with the Government of American Samoa, traditional indigenous fishing within the monument. The Secretaries of the Interior and Commerce, respectively, in consultation with the Government of American Samoa, shall provide for a process to ensure that recreational fishing shall be managed as a sustainable activity consistent with Executive Order 12962 of June 7, 1995, as amended, and other applicable law.

This proclamation shall be applied in accordance with international law. No restrictions shall apply to or be enforced against a person who is not a citizen, national, or resident alien of the United States (including foreign flag vessels) unless in accordance with international law. The management plan and implementing regulations shall impose no restrictions on innocent passage in the territorial sea or otherwise restrict navigation and overflight and other internationally recognized lawful uses of the sea in the monument and shall incorporate the provisions of this proclamation regarding Armed Forces actions and compliance with international law.

Nothing in this proclamation shall be deemed to diminish or enlarge the jurisdiction of the Government of American Samoa. The Secretaries of the Interior and Commerce shall, in developing any management plans and any management rules and regulations governing the marine areas of the monument, as described above, consult with the Government of American Samoa.

**Emergencies, National Security, and Law Enforcement Activities**

1. The prohibitions required by this proclamation shall not apply to activities necessary to respond to emergencies threatening life, property, or the environment, or to activities necessary for national security or law enforcement purposes.

2. Nothing in this proclamation shall limit agency actions to respond to emergencies posing an unacceptable threat to human health or safety or to the marine environment and admitting of no other feasible solution.

**Armed Forces Actions**

1. The prohibitions required by this proclamation shall not apply to activities and exercises of the Armed Forces (including those carried out by the United States Coast Guard).

2. The Armed Forces shall ensure, by the adoption of appropriate measures not impairing operations or operational capabilities, that its vessels and aircraft act in a manner consistent, so far as is reasonable and practicable, with this proclamation.

3. In the event of threatened or actual destruction of, loss of, or injury to a monument living marine resource resulting from an incident, including but not limited to spills and groundings, caused by a component of the Department of Defense or the United States Coast Guard, the cognizant component shall promptly coordinate with the Secretary of the Interior or Commerce, as appropriate for the purpose of taking appropriate actions to respond to and mitigate any actual harm and, if possible, restore or replace the monument resource or quality.

4. Nothing in this proclamation or any regulation implementing it shall limit or otherwise affect the Armed Forces'; discretion to use, maintain, improve, manage, or control any property under the administrative control of a Military Department or otherwise limit the availability of such property for military mission purposes.

The establishment of this monument is subject to valid existing rights.

This proclamation is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity, by any party against the United States, its agencies, instrumentalities, or entities, its officers, employees, or agents, or any other person.

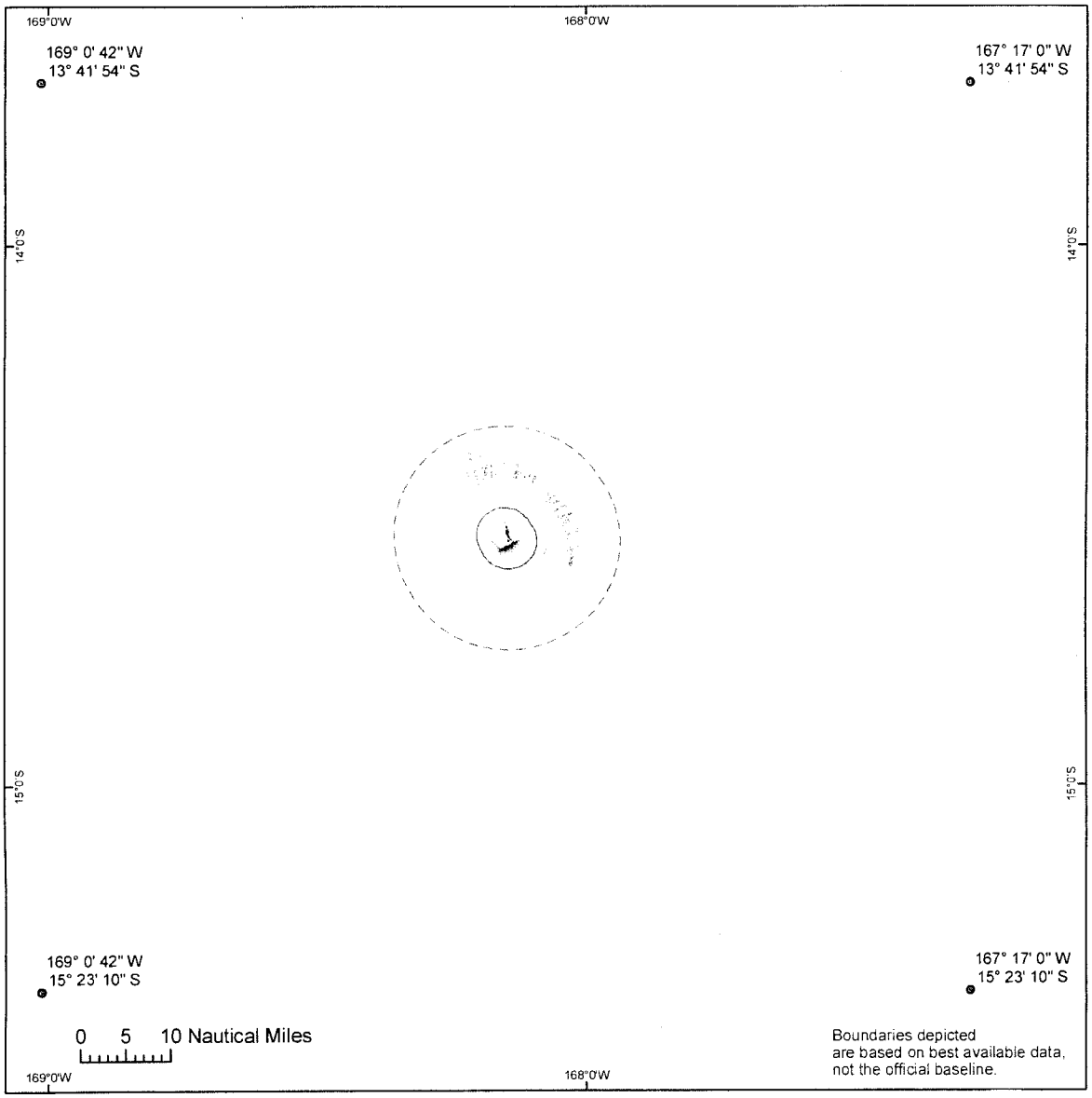
Nothing in this proclamation shall be deemed to revoke any existing withdrawal, reservation, or appropriation; however, the national monument shall be dominant over any other existing Federal withdrawal, reservation, or appropriation.

Warning is hereby given to all unauthorized persons not to appropriate, excavate, injure, destroy, or remove any feature of this monument and not to locate or settle upon any lands thereof.

IN WITNESS WHEREOF, I have hereunto set my hand this sixth day of January, in the year of our Lord two thousand nine, and of the Independence of the United States of America the two hundred and thirty-third.

Billing code 3195–W9–P

# Rose Atoll Marine National Monument




**Bathymetry**

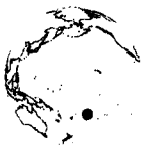
12 nm

3 nm

50 nm (10,157 nm²)

High : -1

Low : -4677



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Billing code 4310–10–C