

Department of Land and Natural Resources  
**DIVISION OF AQUATIC RESOURCES**  
 1151 Punchbowl Street, Room 330  
 Honolulu, HI 96813

Suspense: \_\_\_\_\_

**TO:**

- 1) Suzanne D. Case - Chairperson
- 2)
- 3)
- 4)
- 5)
- 6)

**FOR:**

- |                                     |   |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | Signature(s)  |
| <input type="checkbox"/>            | Approval  |
| <input type="checkbox"/>            | Approval as to Form   |
| <input type="checkbox"/>            | Review and Comments:  |
| <input type="checkbox"/>            | Appropriate Action:   |
| <input type="checkbox"/>            | Return to : <b>DAR-ROOM 330-Cathy Gewecke</b>                                       |
| <input type="checkbox"/>            | <b>BLNR Submittal for PMNM Permit, App., CIS Form and DE for Permittee and File</b> |

REMARKS:

**Board Submittal for a Papahānaumokuākea Marine National Monument Research Permit (PMNM-2020-015) that authorizes Ms. Jennifer Lynch, Co- Director, Center for Marine Debris Research (CMDR), Hawaii Pacific University (HPU), to Conduct Marine Debris Origin Research Activities.**

**The applicant proposes to conduct research on the country and fishery of origin of marine debris collected during the Fall 2020 PMNM Marine Debris Project expedition and/or other separately permitted expeditions planned between October 24th, 2020 - October 23rd, 2021. Up to 50 large net samples would be collected during the marine debris project and set aside for further sampling in Honolulu. Analyses would include measurements of line and mesh as well as polymer composition and identification in order to determine the fishery of origin. Prior to collection, a GPS point and photos would be taken of each net sample in its original state.**

**One research technician would access shallow water and coastal terrestrial areas of Laysan Island, Lisianski Island, Kure Atoll, Midway Atoll, Pearl and Hermes Reef, and French Frigate Shoals to conduct these activities. All personnel access, marine debris collection, vessel transport via the M/V Imua (or TBD Additional Vessel), and other activities related to the associated marine debris mission would be separately permitted under PMNM-2020-001 (Co-Trustee).**

**This activity would benefit the monument by sourcing nets to their fishery of origin, allowing for the development of framework to mitigate and prevent derelict fishing gear pollution in the future.**

Contact Person:      Brian Neilson  
 Phone:      X-70106     

Signature: \_\_\_\_\_  
 Date:      9/23/2020

State of Hawaii  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Division of Aquatic Resources  
Honolulu, Hawaii 96813

October 9, 2020

Board of Land  
and Natural Resources  
Honolulu, Hawaii

Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Research Permit to Ms. Jennifer Lynch, Co-Director, Center for Marine Debris Research (CMDR), Hawaii Pacific University (HPU) for Access to State Waters to Conduct Marine Debris Research Activities

The Division of Aquatic Resources (DAR) hereby submits a request for your authorization and approval for issuance of a Papahānaumokuākea Marine National Monument Jennifer Lynch, Co-Director, Center for Marine Debris Research (CMDR), Hawaii Pacific University (HPU) research permit to Ms. Jennifer Lynch, Co-Director, Center for Marine Debris Research (CMDR), Hawaii Pacific University (HPU) pursuant to § 187A-6, Hawaii Revised Statutes (HRS), chapter13-60.5, Hawaii Administrative Rules (HAR), and all other applicable laws and regulations.

The research permit, as described below, would allow entry and activities to occur in Papahānaumokuākea Marine National Monument (Monument), including the NWHI State Marine Refuge and the waters (0-3 nautical miles) surrounding the following sites:

- French Frigate Shoals
- Gardner Pinnacles
- Maro Reef
- Laysan Island
- Lisianski Island
- Pearl and Hermes Atoll
- Midway Atoll
- Kure Atoll

The activities covered under this permit would be authorized to occur between October 24, 2020 and October 23, 2021.

## INTENDED ACTIVITIES

The applicant proposes to conduct research on the country and fishery of origin of marine debris collected during the Fall 2020 PMNM Marine Debris Project expedition and/or other separately permitted expeditions planned between October 24<sup>th</sup>, 2020 - October 23<sup>rd</sup>, 2021. Up to 50 large net samples would be collected during the marine debris project and set aside for further sampling in Honolulu. Analyses would include measurements of line and mesh as well as polymer composition and identification in order to determine the fishery of origin. Prior to collection, a GPS point and photos would be taken of each net sample in its original state.

One research technician would access shallow water and coastal terrestrial areas of Laysan Island, Lisianski Island, Kure Atoll, Midway Atoll, Pearl and Hermes Reef, and French Frigate Shoals to conduct these activities. All personnel access, marine debris collection, vessel transport via the M/V Imua (or TBD Additional Vessel), and other activities related to the associated marine debris mission would be separately permitted under PMNM-2020-001 (Co-Trustee).

To safeguard Monument resources the applicant would abide by the following PMNM Best Management Practices (BMPs) while conducting the aforementioned activities within the PMNM: Human Hazards to Seabirds Briefing (BMP #003), General Storage and Transport Protocols for Collected Samples (BMP #006), Special Conditions and Rules for Moving Between Islands / Atolls and Packing for Field Camps (BMP #007), Reducing Light Impact to Sea Turtles (BMP #009), Marine Wildlife Viewing Guidelines (BMP #010), Disease and Introduced Species Prevention Protocol for Permitted Activities in the Marine Environment (BMP #011), and Best Practices for Maritime Heritage Sites (BMP #017).

This activity would benefit the monument by sourcing nets to their fishery of origin, allowing for the development of framework to mitigate and prevent derelict fishing gear pollution in the future. The activities will directly support the Monument Management Plan (MMP) as described in:

### **Strategy MD-1: Remove and prevent marine debris throughout the life of the plan:**

*Continued support of existing debris removal programs, including the Marine Debris Program, is essential. Existing debris, particularly large fishing nets, poses an acute entanglement threat to endangered and threatened species. The only way to decrease entanglement rates from existing debris is to remove the nets from beaches and the nearshore areas, including those around French Frigate Shoals, Maro Reef, Lisianski Island, Laysan Island, Pearl and Hermes Atoll, Midway Atoll, and Kure Atoll. Nets and other debris also combine into large masses that are moved around by wave energy. These masses scour the bottom, abrading and breaking coral colonies, preventing colonization, and damaging other benthic resources. Removal of debris, particularly large nets that have come into shallow waters, is expensive and dangerous. Programs to identify, track, and remove nets both within and outside the Monument, combined with incentive programs for fishermen to pick up these nets and bring them back to shore for disposal, may be more cost effective and would prevent damage to fragile reef ecosystems. The MMB will work in partnership with the Coast Guard and other marine debris partners to provide incentives for fishing vessels to participate in disposal programs and still comply with Coast Guard policies regarding the transport of debris as "cargo-for-hire."*

(PMNM MMP Vol. 1, p. 195, 2008).

**Strategy MD-2: Investigate the sources, types, and accumulation rates of marine debris within 5 years.**

*The MMB, in partnership with other governmental and nongovernmental entities, will conduct research into mechanisms to locate, track, and remove debris at sea before it reaches fragile Monument ecosystems. This program will attempt to use unmanned aircraft systems to locate the debris at sea and may also take advantage of remote sensing systems being researched for Monument enforcement purposes to detect large debris conglomerates. Once an area of high concentration of debris is located, unmanned aircraft can be launched from vessels to find individual conglomerations of debris and target removal efforts. These initiatives will help direct the cleanup effort to where it will have the greatest effect, with limited resources. Using satellite imagery, NMFS is also working with partners to design a statistical survey to census marine debris in the north Pacific. This information will provide us with an estimate of the magnitude of the marine debris problem in the Pacific. In addition, NMFS and its partners are working to track debris movement in the Pacific Ocean, including areas within the Monument, through the use of satellite-tracked drifter buoys.*

*Another project is to address the small plastic debris being fed to young albatrosses. Much of the debris being fed to young albatross is picked up at sea by the adults. Monitoring the debris that washes up onto the beaches at Midway Atoll will provide a snapshot of what is in the waters surrounding the Monument islands, the most economical approach to such identification. This study will also allow us to begin to identify sources of the debris and then to develop a strategy for use of this information for prevention through education and outreach targeting key stakeholders and user-groups that are associated with the behaviors that produce these forms of marine debris.*

(PMNM MMP Vol. 1, p. 197, 2008).

The activities described above may require the following regulated activities to occur in State waters:

- Anchoring a vessel
- Swimming, snorkeling, or closed or open circuit SCUBA diving within any Special Preservation Area or Midway Atoll Special Management Area

**REVIEW PROCESS:**

The permit application was sent out for review and comment to the following scientific and cultural entities: Hawaii Division of Aquatic Resources, Hawaii Division of Forestry and Wildlife, Papahānaumokuākea Marine National Monument (NOAA/NOS), NOAA Pacific Islands Regional Office (NOAA-PIRO), United States Fish and Wildlife Service Hawaiian and Pacific Islands National Wildlife Refuge Complex Office, and the Office of Hawaiian Affairs (OHA). In addition, the permit application has been posted on the Monument Web site since June 18, 2020, giving the public an opportunity to comment. The application was posted within 40 days of its receipt, in accordance with the Monument's Public Notification Policy.

**Comments received from the scientific community are summarized as follows:**

Scientific reviews support the acceptance of this application.

The following comments were raised. Applicant responses are noted below.

**QUESTIONS:**

*None*

**COMMENTS / RECOMMENDATIONS:**

1. This seems like a very good and timely study. It uses existing resources and marine debris removal to conduct important research.

**Applicant Response:** *Thank you.*

2. The US Fish and Wildlife Service recommends approval of this permit.

**Applicant Response:** *Thank you.*

3. The permittee is required to follow all applicable Federal, State, and County laws with respect to the COVID-19 emergency response that apply at the time of departure and return. In issuance of this permit, the State of Hawaii is not otherwise monitoring or regulating permittee's compliance with COVID-19 laws and is not responsible for the health and safety of crew members, researchers or other occupants of the vessel associated with this permit.

**Applicant Response:** *Thank you, Understood.*

**Comments received from the Native Hawaiian community are summarized as follows:**

Cultural reviews support the acceptance of this application.

**Comments received from the public are summarized as follows:**

No comments were received from the public on this application.

**Additional reviews and permit history:**

Are there other relevant/necessary permits or environmental reviews that have or will be issued with regard to this project? (e.g. MMPA, ESA, EA)      Yes       No

If so, please list or explain:

- The proposed activities are in compliance with the National Environmental Policy Act.
- Coordination and consultation pursuant to ESA Section 7 will occur prior to issuance of this permit.
- The Department has made an exemption determination for this permit in accordance chapter 343, HRS, and Chapter 11-200, HAR. See Attachment (“DECLARATION OF EXEMPTION FROM THE PREPARATION OF AN ENVIRONMENTAL ASSESSMENT UNDER THE AUTHORITY OF CHAPTER 343, HRS AND CHAPTER 11-200 HAR, FOR PAPA HANAUMOKU AKEA MARINE NATIONAL MONUMENT SPECIAL OCEAN USE PERMIT TO MS. JENNIFER LYNCH, CO-DIRECTOR, CENTER FOR MARINE DEBRIS RESEARCH (CMDR), HAWAII PACIFIC UNIVERSITY (HPU) FOR ACCESS TO STATE WATERS TO CONDUCT MARINE DEBRIS ORIGIN RESEARCH ACTIVITIES UNDER PERMIT PMNM-2020-015”)

Has Applicant been granted a permit from the State in the past? Yes  No

If so, please summarize past permits:

Have there been any a) violations: Yes  No

b) Late/incomplete post-activity reports: Yes  No

Are there any other relevant concerns from previous permits? Yes  No

STAFF OPINION:

DAR staff is of the opinion that Applicant has properly demonstrated valid justifications for her application and should be allowed to enter the NWHI State waters and to conduct the activities therein as specified in the application with certain special instructions and conditions, which are in addition to the Papahānaumokuākea Marine National Monument Research Permit General Conditions. All suggested special conditions have been vetted through the legal counsel of the Co-Trustee agencies (see Recommendation section).

MONUMENT MANAGEMENT BOARD OPINION:

At the time of this submittal deadline, the MMB has endorsed this application as part of the MMB joint permit process.

RECOMMENDATION:

Based on the attached proposed declaration of exemption prepared by the department after consultation with and advice of those having jurisdiction and expertise for the proposed permit actions:

1. That the Board declare that the actions which are anticipated to be undertaken under this permit will have little or no significant effect on the environment and is therefore exempt from the preparation of an environmental assessment.
2. Upon the finding and adoption of the department's analysis by the Board, that the Board delegate and authorize the Chairperson to sign the declaration of exemption for purposes of recordkeeping requirements of chapter 343, HRS, and chapter 11-200, HAR.
3. That the Board authorize and approve a Research Permit to Ms. Jennifer Lynch, Co-Director, Center for Marine Debris Research (CMDR), Hawaii Pacific University (HPU) with the following special conditions:
  - a. To prevent introduction of disease or the unintended transport of live organisms, the permittee must comply with the disease and transport protocol attached to this permit.
  - b. Tenders and small vessels must be equipped with engines that meet EPA emissions requirements.
  - c. Refueling of tenders and all small vessels must be done at the support ships and outside the confines of lagoons or near-shore waters in the State Marine Refuge.
  - d. No fishing is allowed in State Waters except as authorized under State law for subsistence, traditional, and customary practices by Native Hawaiians.

- e. The permittee is required to follow all applicable Federal, State, and County laws with respect to the COVID-19 emergency response that apply at the time of departure and return. In issuance of this permit, the State of Hawaii is not otherwise monitoring or regulating permittee's compliance with COVID-19 laws and is not responsible for the health and safety of crew members, researchers or other occupants of the vessel associated with this permit.

Respectfully submitted,

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Brian J. Neilson, Administrator  
Division of Aquatic Resources

APPROVED FOR SUBMITTAL

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Suzanne D. Case, Chairperson  
Board of Land and Natural Resources



**Papahānaumokuākea Marine National Monument**  
RESEARCH Permit Application

***NOTE: This Permit Application (and associated Instructions) are to propose activities to be conducted in the Papahānaumokuākea Marine National Monument. The Co-Trustees are required to determine that issuing the requested permit is compatible with the findings of Presidential Proclamation 8031. Within this Application, provide all information that you believe will assist the Co-Trustees in determining how your proposed activities are compatible with the conservation and management of the natural, historic, and cultural resources of the Papahānaumokuākea Marine National Monument (Monument).***

**ADDITIONAL IMPORTANT INFORMATION:**

- Any or all of the information within this application may be posted to the Monument website informing the public on projects proposed to occur in the Monument.
- In addition to the permit application, the Applicant must either download the Monument Compliance Information Sheet from the Monument website OR request a hard copy from the Monument Permit Coordinator (contact information below). The Monument Compliance Information Sheet must be submitted to the Monument Permit Coordinator after initial application consultation.
- Issuance of a Monument permit is dependent upon the completion and review of the application and Compliance Information Sheet.

**INCOMPLETE APPLICATIONS WILL NOT BE CONSIDERED**

Send Permit Applications to:  
NOAA/Inouye Regional Center  
NOS/ONMS/PMNM/Attn: Permit Coordinator  
1845 Wasp Blvd, Building 176  
Honolulu, HI 96818  
nwhipermit@noaa.gov  
PHONE: (808) 725-5800 FAX: (808) 455-3093

**SUBMITTAL VIA ELECTRONIC MAIL IS PREFERRED BUT NOT REQUIRED. FOR ADDITIONAL SUBMITTAL INSTRUCTIONS, SEE THE LAST PAGE.**

## **Papahānaumokuākea Marine National Monument Permit Application Cover Sheet**

This Permit Application Cover Sheet is intended to provide summary information and status to the public on permit applications for activities proposed to be conducted in the Papahānaumokuākea Marine National Monument. While a permit application has been received, it has not been fully reviewed nor approved by the Monument Management Board to date. The Monument permit process also ensures that all environmental reviews are conducted prior to the issuance of a Monument permit.

### **Summary Information**

**Applicant Name:** Jennifer Lynch

**Affiliation:** Co-Director, Center for Marine Debris Research (CMDR), Hawaii Pacific University (HPU)

**Permit Category:** Research

**Proposed Activity Dates:** 10/24/2020 - 10/23/2021 (as part of multiple cruises)(updated info)

**Proposed Method of Entry (Vessel/Plane):** M/V IMUA, TBD Additional Vessel (updated info)

**Proposed Locations:** Kure Atoll, Midway Atoll, Pearl & Hermes Atoll, Lisianski Island, Laysan Island, French Frigate Shoals

**Estimated number of individuals (including Applicant) to be covered under this permit:**

3

**Estimated number of days in the Monument:** 24

**Description of proposed activities:** (complete these sentences):

a.) The proposed activity would...

The proposed activity would identify and collect samples of derelict fishing gear (ghost nets and Fish Aggregation Devices - FADs) that are to be removed during the Papahānaumokuākea Marine Debris Project Fall 2020 collaborative marine debris removal mission (with NOAA PIFSC Ecosystem Sciences Division, NOAA Papahānaumokuākea Marine National Monument Program, State of Hawaii DLNR Division of Forestry and Wildlife, U.S. Fish and Wildlife Services, Papahānaumokuākea Marine Debris Project (non-profit organization)) and/or during other separately permitted research expeditions, with the purpose of identifying where the fishing gear has come from, the country and fishery of origin.

b.) To accomplish this activity we would ...

To accomplish this activity one research technician from CMDR would participate on the Fall 2020 Northwestern Hawaiian Islands Marine Debris Removal cruise aboard the M/V IMUA with NOAA PIFSC Ecosystem Sciences Division, NOAA Papahānaumokuākea Marine National Monument Program, State of Hawaii DLNR Division of Forestry and Wildlife, U.S. Fish and

Wildlife Services, Papahānaumokuākea Marine Debris Project (non-profit organization) and/or on another separately permitted research expedition on another research vessel (TBD Additional Vessel)(updated info). NOAA PIFSC ESD will lead small boat and shoreline marine debris removal operations. Once the debris is removed from the shoreline and transported back to the vessel, or once offloaded in Honolulu, we (HPU CMDR) will conduct the most comprehensive net sampling protocol known to date, which involves distinguishing identifiable features of the nets, plastic polymer identification of net samples, and collaborating with fishermen and regional fishery councils throughout the Pacific to source the nets to their fishery of origin, and develop the framework to mitigate and prevent derelict fishing gear pollution.

c.) This activity would help the Monument by ...

This activity would help the Monument by sourcing mega-sized marine debris, including ghost nets and FADs, to the fishery responsible for the discarded/lost gear. This study will establish the framework for identifying the plastic polymer types that these nets are composed of and sourcing the fishing nets back to the fisheries responsible. The outcome of this project is to raise awareness of the natural resource damage caused by the marine debris, particularly ghost nets and FADs, in the Papahānaumokuākea Marine National Monument, to understand the chemical composition of the nets, and to use the best available scientific analysis of the nets paired with social science working with fishermen/fishers and fishery councils throughout the Pacific to find solutions to this continuing issue of derelict fishing gear (DFG) pollution.

**Other information or background:**

About HPU Center for Marine Debris Research :

**MISSION:**

The Center for Marine Debris Research develops and applies optimal methods to investigate the sources, transport, fate, and impacts of plastic marine debris. The Center also disseminates this knowledge to inform management and stimulate ocean stewardship.

**VISION:**

The ultimate goal of all activities of the Center for Marine Debris Research is a trash-free ocean.

**GOALS:**

Bringing together the scientific community to develop standards and collaboration synergies.

Train the next generation for career opportunities in marine debris science and advocacy.

Stimulate public awareness and engagement in marine debris reduction and mitigation.

Provide policymakers with rigorous scientific findings to underpin legislation to reduce marine debris.

## **Section A - Applicant Information**

### **1. Applicant**

Name (last, first, middle initial): Lynch, Jennifer M.

Title: Co-Director, Center for Marine Debris Research (CMDR), Hawaii Pacific University (HPU)

#### **1a. Intended field Principal Investigator(See instructions for more information):**

Jennifer Lynch, Ph.D.

### **2. Mailing address (street/P.O. box, city, state, country, zip):**

[REDACTED]

Phone:

[REDACTED]

Fax:

Email:

[REDACTED]

For students, major professor's name, telephone and email address:

### **3. Affiliation (institution/agency/organization directly related to the proposed project):**

Hawaii Pacific University (HPU), Center for Marine Debris Research (CMDR)

### **4. Additional persons to be covered by permit. List all personnel roles and names (if known at time of application) here (e.g. John Doe, Research Diver; Jane Doe, Field Technician):**

Raquel Corniuk, Research Technician

Andrew McWhirter, Research Technician / Graduate Student (pursuing master's degree)

**Section B: Project Information**

**5a. Project location(s):**

**Ocean Based**

- |  |  |   |                                     |
|--|--|---|-------------------------------------|
| <input type="checkbox"/> Nihoa Island                            | <input type="checkbox"/> Land-based            | <input type="checkbox"/> Shallow water            | <input type="checkbox"/> Deep water |
| <input type="checkbox"/> Necker Island (Mokumanamana)            | <input type="checkbox"/> Land-based            | <input type="checkbox"/> Shallow water            | <input type="checkbox"/> Deep water |
| <input checked="" type="checkbox"/> French Frigate Shoals        | <input checked="" type="checkbox"/> Land-based | <input checked="" type="checkbox"/> Shallow water | <input type="checkbox"/> Deep water |
| <input type="checkbox"/> Gardner Pinnacles                       | <input type="checkbox"/> Land-based            | <input type="checkbox"/> Shallow water            | <input type="checkbox"/> Deep water |
| <input type="checkbox"/> Maro Reef                               |  |   |                                     |
| <input checked="" type="checkbox"/> Laysan Island                | <input checked="" type="checkbox"/> Land-based | <input checked="" type="checkbox"/> Shallow water | <input type="checkbox"/> Deep water |
| <input checked="" type="checkbox"/> Lisianski Island, Neva Shoal | <input checked="" type="checkbox"/> Land-based | <input checked="" type="checkbox"/> Shallow water | <input type="checkbox"/> Deep water |
| <input checked="" type="checkbox"/> Pearl and Hermes Atoll       | <input checked="" type="checkbox"/> Land-based | <input checked="" type="checkbox"/> Shallow water | <input type="checkbox"/> Deep water |
| <input checked="" type="checkbox"/> Midway Atoll                 | <input checked="" type="checkbox"/> Land-based | <input checked="" type="checkbox"/> Shallow water | <input type="checkbox"/> Deep water |
| <input checked="" type="checkbox"/> Kure Atoll                   | <input checked="" type="checkbox"/> Land-based | <input checked="" type="checkbox"/> Shallow water | <input type="checkbox"/> Deep water |
| <input type="checkbox"/> Other                                   |  |   |                                     |

NOTE: Shallow water is defined by water less than 100 meters in depth.

- Remaining ashore on any island or atoll (with the exception of Sand Island, at Midway Atoll and field camp staff on other islands/atolls) between sunset and sunrise.

NOTE: There is a fee schedule for people visiting Midway Atoll National Wildlife Refuge via vessel and aircraft.

Location Description:

**5b. Check all applicable regulated activities proposed to be conducted in the Monument:**

- Removing, moving, taking, harvesting, possessing, injuring, disturbing, or damaging any living or nonliving Monument resource
- Drilling into, dredging, or otherwise altering the submerged lands other than by anchoring a vessel; or constructing, placing, or abandoning any structure, material, or other matter on the submerged lands
- Anchoring a vessel
- Deserting a vessel aground, at anchor, or adrift
- Discharging or depositing any material or matter into the Monument
- Touching coral, living or dead
- Possessing fishing gear except when stowed and not available for immediate use during passage without interruption through the Monument
- Attracting any living Monument resource
- Sustenance fishing (Federal waters only, outside of Special Preservation Areas, Ecological Reserves and Special Management Areas)

- Subsistence fishing (State waters only)
- Swimming, snorkeling, or closed or open circuit SCUBA diving within any Special Preservation Area or Midway Atoll Special Management Area

**6. Purpose/Need/Scope *State purpose of proposed activities:***

The purpose and scope of this research is to analyze the derelict fishing gear washing ashore in Papahānaumokuākea Marine National Monument in order to trace the fishing gear back to its fishery of origin.

There are thousands of pounds of marine debris washing ashore or getting caught in the reefs of the Monument every year. Debris removal efforts do not match the estimated accumulation rate. And, there is currently not enough evidence to determine the sources of the derelict fishing gear that is degrading the natural resources of the Monument and posing hazards of entanglement, ingestion, foreign species invasion, and habitat degradation for the protected, threatened and endangered wildlife that live within the Monument. This research will raise awareness of derelict fishing gear in the Monument, source the derelict fishing gear to the fishery and country of origin, build the most comprehensive identification database on derelict fishing gear to date, and establish the framework for means of accountability in order to collaborate towards sustainable solutions to this issue.

\*Considering the purpose of the proposed activities, do you intend to film / photograph federally protected species?    Yes     No **X**

If so, please list the species you specifically intend to target.

NOAA PIFSC, NOAA ONMS PMNM, State of Hawaii, and USFWS will photograph federally protected species.

For a list of terrestrial species protected under the Endangered Species Act visit:

<http://www.fws.gov/angered/>

For a list of marine species protected under the Endangered Species Act visit:

<http://www.nmfs.noaa.gov/pr/species/esa/>

For information about species protected under the Marine Mammal Protection Act visit:

<http://www.nmfs.noaa.gov/pr/laws/mmpa/>

**7. Answer the Findings below by providing information that you believe will assist the Co-Trustees in determining how your proposed activities are compatible with the conservation and management of the natural, historic, and cultural resources of the Monument:**

The Findings are as follows:

a. How can the activity be conducted with adequate safeguards for the cultural, natural and historic resources and ecological integrity of the Monument?

Plastic pollution is degrading the cultural, natural and historic resources in the Monument. This proposed research involves collecting samples of nets and fishing gear from the FADs and ghost nets that are to be removed by the collaborative group on the Fall 2020 Northwestern Hawaiian

Islands Marine Debris Removal cruise. These samples of nets and other marine debris will allow us to determine the chemical composition and sources of the derelict fishing gear in the Monument, which will enable the establishment of the framework for future mitigation solutions with fisheries throughout the Pacific.

b. How will the activity be conducted in a manner compatible with the management direction of this proclamation, considering the extent to which the conduct of the activity may diminish or enhance Monument cultural, natural and historic resources, qualities, and ecological integrity, any indirect, secondary, or cumulative effects of the activity, and the duration of such effects?

Samples for our research will only be collected from the nets that the collaborative NWHI Marine Debris Removal Project will already be removing. Our sampling protocol will be conducted on the vessel M/V IMUA, or on land in Honolulu, so that there will be no added interactions with the Monument resources.

c. Is there a practicable alternative to conducting the activity within the Monument? If not, explain why your activities must be conducted in the Monument.

No, there is not a practicable alternative since our partners with the NWHI Marine Debris Removal Project, particularly Papahānaumokuākea Marine Debris Project, will be removing nets from the Monument in September/October. In order to achieve our research objectives to determine the type and source of the derelict fishing gear found in the Monument, we must obtain net samples from the monument. This collaborative NWHI Marine Debris Removal Project cruise in September/October is the perfect opportunity for us to obtain samples from the Monument, and aligns perfectly with the grant that CMDR has received to support a graduate student and research technician to conduct this research.

d. How does the end value of the activity outweigh its adverse impacts on Monument cultural, natural and historic resources, qualities, and ecological integrity?

The activities shall not impact the Monument's integrity since all activities will be performed on a vessel (M/V IMUA) that already intends on being in the Monument. CMDR's research sampling activities will occur on the vessel or back on land in Honolulu without causing any further impacts to the Monument. The end value will provide knowledge of the polymer composition and identify the source of the derelict fishing gear found in the Monument. The goal is to then partner with fishermen/fishers and regional fishery councils throughout the Pacific to raise awareness of the damage caused by the derelict fishing gear and work towards solutions, which will benefit the Monument.

e. Explain how the duration of the activity is no longer than necessary to achieve its stated purpose.

The net sample collection will only occur for as long as the collaborative NWHI Marine Debris Removal Project group and/or other separately permitted expeditions are carrying out the marine debris removal mission. This activity will be partnering with Papahānaumokuākea Marine Debris Project, NOAA PIFSC ESD, NOAA ONMS



PMNM, State of Hawaii DLNR DOFAW, and USFWS already removing marine debris and our activities will not prolong their mission.

f. Provide information demonstrating that you are qualified to conduct and complete the activity and mitigate any potential impacts resulting from its conduct.

Jennifer Lynch, Ph.D., has been employed by the Department of Commerce, National Institute of Standards and Technology (NIST) for 17 years. She has been the co-director of CMDR at Hawaii Pacific University since inception in Jan 2019. She has published over 50 peer-reviewed scientific manuscripts, many of which in collaboration with NOAA, including the PIFSC scientists. Eight of these publications focus on plastic marine debris in Hawaii. She has been invited to speak about polymer identification methods of micro to mega-plastics at the National Academies of Sciences, Engineering and Medicine. She has mentored over 80 students through research projects, all related to pollution in the ocean. These net samples will be included in a larger study that was funded by the Norwegian Retailers' Environment Fund, in which Jennifer Lynch is a P.I., and is financially supporting Raquel Corniuk and Drew McWhirter. The net photos and subsamples will be compared to nets also sampled in the Main Hawaiian Islands, Palmyra Atoll, and the North Pacific gyre through additional collaborations with DLNR, The Nature Conservancy, and Ocean Voyages Institute. Samples from five nets from Palmyra and at least six nets from the Main Hawaiian Islands are already collected for this project. HPU has become a member of the Global Ghost Gear Initiative and has shared their proposal and protocols for member input. Lynch has begun partnering with the International Seafood Sustainability Foundation for making connections with the tuna purse seine fishery, especially those operating out of the Eastern Pacific.

g. Provide information demonstrating that you have adequate financial resources available to conduct and complete the activity and mitigate any potential impacts resulting from its conduct.

All financial resources for the mission of recovering debris from the Monument are provided by partners at the NOAA Restoration Center/Damage Assessment Remediation, and Restoration Program, State of Hawaii DLNR DOFAW, NOAA PIFSC ESD, and USFWS.

The financial resources to fund this specific research project were provided by the Norwegian Retailers' Environment Fund to HPU (<https://www.hpu.edu/about-us/news-and-events/news/2020/04/cmdr-receives-grant-to-protect-reefs.html> or <https://handelensmiljofond.no/en/projects-to-tackle-plastic-pollution-worldwide-awarded-grants>)

h. Explain how your methods and procedures are appropriate to achieve the proposed activity's goals in relation to their impacts to Monument cultural, natural and historic resources, qualities, and ecological integrity.

Sampling methods of the derelict fishing gear of interest will only occur on the vessel (M/V IMUA or TBD Additional Vessel) or on land in Honolulu. Further sampling efforts will occur in the laboratory of the HPU Center for Marine Debris Research, Oceanic Institute in Waimanalo, Hawaii. We are

undertaking the most meticulous sampling protocol of ghost fishing gear ever attempted in the Hawaiian Islands, or nearly anywhere in the world. Based on conversations with our GGGI network, there is only one other research protocol that is more extensive, which is in Norway, and in that study they are untangling the entire net mass to measure complete dimensions. We believe that our intensive sampling, polymer identification methods, and extensive social science survey plan will improve our chances of identifying the responsible fisheries. We are adding protocol details to what NOAA performed starting in the 1990s. Those additions include 1) sampling additional gear and gear configurations, rather than only the net webbing, 2) performing polymer identification and including this information on each photo description which will improve surveyors accuracy for gear use, and 3) reaching farther and more diverse fishers or fisheries experts from all regions of the Pacific Ocean, including Central and South American countries.

i. Has your vessel been outfitted with a mobile transceiver unit approved by OLE and complies with the requirements of Presidential Proclamation 8031?

Yes

j. Demonstrate that there are no other factors that would make the issuance of a permit for the activity inappropriate.

The only activity proposed is to sample derelict fishing gear that the collaborative NWHI Marine Debris Removal project group and/or another separately permitted expedition will be removing from the Monument. We are not requiring any additional activities from the working group, that they will not already be doing. The goal is to partner with this project so that the Center for Marine Debris Research can analyze these subsamples in the laboratory to understand chemical composition of the fishing gear and source them back to the fisheries of origin.

## **8. Procedures/Methods:**

### **Sampling Procedures**

Our goal is to obtain at least 10 large net samples for our research from this NWHI Marine Debris Removal Project cruise and/or another separately permitted expedition. When a large net is found washed ashore on an island or atoll during the marine debris removal effort, a GPS waypoint will be taken at the net and photos will be taken of the net in its original state, which includes 4 photos around the net and one photo above the net. After the net sample is removed from the shoreline and transported to the vessel by the collaborative NWHI Marine Debris Removal Project group (NOAA PIFSC ESD will lead shoreline removal and small boat operations), the sample will be tagged with a metal dog-tag and brightly colored tape. The net will dry on the back deck of the vessel until it is ready to be bagged into a commercial lift bag, or if it is too large to fit in a lift bag it will be contained in a cargo net. The lift bag (or cargo net) will be flagged with bright tape or spray paint and labeled with the sample number, island or atoll where found, and date found. The net and all components of the net will remain intact as it was in its original state until it can be meticulously analyzed back on land at HPU CMDR or the NOAA IRC, Honolulu, Hawaii.

Back on land in Honolulu, the net will be divided into four sections. Starting with one section, using a sharp knife we will remove samples by cutting one-foot pieces of line, rope, or net from the mass for all distinct net types and features. If there is a unique feature about the line (i.e. tied in a unique knot, merged with another type of line, or has metal attached, hard plastic floats or buoys) we will sample this portion. Special care will be taken to look for gear tags, such as threads that are spliced into lines or metal/plastic tags with identifying markings. We will record information about the sample and what it was originally attached to within the mass. Each sample collected will be photographed, labelled, and additional information will be taken (biofouling scale, color, type). These samples will be bagged accordingly and brought back to the Center for Marine Debris Research for further analysis. Further analysis includes measurements of line and mesh, polymer identification, creation of a database and survey of subsample photos with accompanying measurements and polymer composition, and a survey of experts to identify the fisheries of origin.

**NOTE: If land or marine archeological activities are involved, contact the Monument Permit Coordinator at the address on the general application form before proceeding.**

**9a. Collection of specimens - collecting activities (would apply to any activity): organisms or objects (List of species, if applicable, attach additional sheets if necessary):**

N/A

Common name:

Scientific name:

# & size of specimens:

Collection location:

Whole Organism  Partial Organism

**9b. What will be done with the specimens after the project has ended?**

**9c. Will the organisms be kept alive after collection?  Yes  No**

• General site/location for collections:

- Is it an open or closed system?  Open  Closed
- Is there an outfall?  Yes  No
- Will these organisms be housed with other organisms? If so, what are the other organisms?
- Will organisms be released?

**10. If applicable, how will the collected samples or specimens be transported out of the Monument?**

Net samples will be collected from those removed by the collaborative NWHI Marine Debris Removal Project group or other separately permitted expeditions aboard the M/V IMUA or TBD Additional Vessel. Back on O’ahu net samples will either be transported to the Center for Marine Debris Research for analysis, or analyzed after the mission offload at the NOAA IRC in Honolulu, Hawaii.

**11. Describe collaborative activities to share samples, reduce duplicative sampling, or duplicative research:**

We will share our sampling and analysis with NOAA PIFSC, NOAA PIRO, NOAA Marine Debris Program, Global Ghost Gear Initiative, Papahānaumokuākea Marine Debris Project, Ocean Voyages Institute, DLNR DAR, and the International Seafood Sustainability Foundation. We will continue to build this derelict fishing gear database and share our data with any collaborators involved in this research.

**12a. List all specialized gear and materials to be used in this activity:**

N/A

**12b. List all Hazardous Materials you propose to take to and use within the Monument:**

NONE

**13. Describe any fixed installations and instrumentation proposed to be set in the Monument:**

NONE

**14. Provide a timeline for sample analysis, data analysis, write-up and publication of information:**

October 2020 (or other months/expeditions up until October 2021): Sample collection  
November 2020 to January 2021: Sample analysis (i.e. polymer identification using Fourier-Transformed Infrared Spectroscopy (FTIR)), social science survey creation  
January 2021 to February 2021: Surveys are sent out

February to May 2021: Data analysis and write up

December 2021: Peer reviewed manuscript published of polymer identification and sourced fisheries of fishing gear types

**15. List all Applicants' publications directly related to the proposed project:**

1. Gove, J.M., Whitney, J.L., McManus, M.M., Lecky, J., Carvalho, F.C., **Lynch, J.M.**, Li, J., Neubauer, P., Smith, K.A., Phipps, J.E., Kobayashi, D.R., Balagso, K.B., Contreras, E.A., Manuel, M.E., Merrifield, M.A., Polovina, J.J., Asner, G.P., Maynard, J.A., Williams, G.J. 2019. Prey-sized plastics are invading larval fish nurseries. *Proceedings of the National Academy of Science*. 116(48):24143-24149. DOI 10.1073/pnas.1907496116.
2. Brignac K.C., Jung M.R., King C., Royer S.-J., Blickley L., Lamson M.R., Potemra J.T., **Lynch J.M.** 2019. Marine Debris Polymers on Main Hawaiian Island Beaches, Sea Surface, and Seafloor. *Environmental Science and Technology*. 53(21):12218-12226. DOI 10.1021/acs.est.9b03561.
3. Currie J., Stack S., Brignac K.C., **Lynch J.M.** 2019. Nearshore sea surface macro marine debris in Maui County, Hawaii: distribution, drivers, and polymer composition. *Marine Pollution Bulletin*. 138:70-83. DOI 10.1016/j.marpolbul.2018.11.026
4. **Lynch J.M.** 2018. Quantities of marine debris ingested by sea turtles: Global meta-analysis highlights need for standardized data reporting methods and reveals relative risk. *Environmental Science and Technology*. 52:12026-12038. DOI 10.1021/acs.est.8b02848.
5. Jung M.R., Balazs G.H., Work T.M., Jones T.T., Orski S.V., Rodriguez C. V., Beers K.L., Brignac K.C., Hyrenbach K.D., Jensen B.A., **Lynch J.M.** 2018. Polymer Identification of Plastic Debris Ingested by Pelagic-phase Sea Turtles in the Central Pacific. *Environmental Science and Technology*. 52:11535-11544. DOI 10.1021/acs.est.8b03118.
6. Jung M.R., Horgen F.D., Orski S.V., Rodriguez C. V., Beers K.L., Balazs G.H., Jones T.T., Work T.M., Brignac K.C., Royer S.-J., Hyrenbach K.D., Jensen B.A., **Lynch J.M.** 2018. Validation of ATR FT-IR to identify polymers of plastic marine debris, including those ingested by marine organisms. *Marine Pollution Bulletin*. 127:704-716. DOI 10.1016/j.marpolbul.2017.12.061.
7. Clukey K.E., Lepczyk C.A., Balazs G.H., Work T.M., Li Q.X., Bachman M.J., **Lynch J.M.** 2018. Persistent Organic Pollutants in Fat of Three Species of Pacific Pelagic Longline Caught Sea Turtles: Accumulation in Relation to Ingested Plastic Marine Debris. *Science of the Total Environment*. 610-611:402-411. DOI 10.1016/j.scitotenv.2017.07.242.
8. Clukey K.E., Lepczyk C.A., Balazs G., Work T., **Lynch J.M.** 2017. Investigation of Plastic Debris Ingestion by Four Species of Sea Turtles Collected as Bycatch in Pelagic Pacific Longline Fisheries. *Marine Pollution Bulletin*. 120(1-2):117-125. DOI 10.1016/j.marpolbul.2017.04.064.

With knowledge of the penalties for false or incomplete statements, as provided by 18 U.S.C. 1001, and for perjury, as provided by 18 U.S.C. 1621, I hereby certify to the best of my abilities under penalty of perjury of that the information I have provided on this application form is true and correct. I agree that the Co-Trustees may post this application in its entirety on the Internet. I understand that the Co-Trustees will consider deleting all information that I have identified as “confidential” prior to posting the application.



April 29, 2020

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Signature

Date

**SEND ONE SIGNED APPLICATION VIA MAIL TO THE MONUMENT OFFICE BELOW:**

NOAA/Inouye Regional Center  
NOS/ONMS/PMNM/Attn: Permit Coordinator  
1845 Wasp Blvd, Building 176  
Honolulu, HI 96818  
FAX: (808) 455-3093

**DID YOU INCLUDE THESE?**

- Applicant CV/Resume/Biography
- Intended field Principal Investigator CV/Resume/Biography
- Electronic and Hard Copy of Application with Signature
- Statement of information you wish to be kept confidential
- Material Safety Data Sheets for Hazardous Materials

## **Papahānaumokuākea Marine National Monument Compliance Information Sheet**

**1. Updated list of personnel to be covered by permit. List all personnel names and their roles here (e.g. John Doe, Diver; Jane Doe, Field Technician, Jerry Doe, Medical Assistant):**

Jennifer Lynch

Co-Director of Center for Marine Debris Research (CMDR), Hawaii Pacific University (HPU)

808-236-3582 (office) or 843-442-2188 (cell)

jmlynch@hpu.edu

Raquel Corniuk

Research Technician

Center for Marine Debris Research (CMDR), Hawaii Pacific University (HPU)

714-316-9942 (cell)

rcorniuk1@my.hpu.edu

Andrew McWhirter

Research Technician / Graduate Student (pursuing Master's degree)

Center for Marine Debris Research (CMDR), Hawaii Pacific University (HPU)

808-773-3232 (cell)

drew.mcwhirter@gmail.com

**2. Specific Site Location(s): (Attach copies of specific collection locations):**

French Frigate Shoals

Laysan Island

Lisianski Island, Neva Shoal

Pearl and Hermes Atoll

Midway Atoll

Kure Atoll

**3. Other permits (list and attach documentation of all other related Federal or State permits):**

N/A

**3a. For each of the permits listed, identify any permit violations or any permit that was suspended, amended, modified or revoked for cause. Explain the circumstances surrounding the violation or permit suspension, amendment, modification or revocation.**

N/A

**4. Funding sources (Attach copies of your budget, specific to proposed activities under this permit and include funding sources. See instructions for more information):**

N/A

**5. Time frame:**

2020-2021, as part of multiple cruises  
Activity start: 10/24/2020  
Activity completion: 10/23/2021

Dates actively inside the Monument: (TBD)

From:

To:

Describe any limiting factors in declaring specific dates of the proposed activity at the time of application:

N/A

Personnel schedule in the Monument:

Minimal. To be determined.

No separately permitted researchers will accompany the October 2020 Imua expedition. Work will be carried out by PMNM employees.

**6. Indicate (with attached documentation) what insurance policies, bonding coverage, and/or financial resources are in place to pay for or reimburse the Monument trustees for the necessary search and rescue, evacuation, and/or removal of any or all persons covered by the permit from the Monument:**

**7. Check the appropriate box to indicate how personnel will enter the Monument:**

Vessel

Aircraft

Provide Vessel and Aircraft information:

M/V IMUA, TBD potential additional vessel

**8. The certifications/inspections (below) must be completed prior to departure for vessels (and associated tenders) entering the Monument. Fill in scheduled date (attach documentation):**



- Rodent free, Date:
- Tender vessel, Date:
- Ballast water, Date:
- Gear/equipment, Date:
- Hull inspection, Date:

**9. Vessel information (NOTE: if you are traveling aboard a National Oceanic and Atmospheric Administration vessel, skip this question):**

Vessel name: M/V IMUA, TBD additional vessel  
Vessel owner:  
Captain's name:  
IMO#:  
Vessel ID#:  
Flag:  
Vessel type: Merchant Vessel  
Call sign:  
Embarkation port:  
Last port vessel will have been at prior to this embarkation:  
Length:  
Gross tonnage:  
Total ballast water capacity volume (m3):  
Total number of ballast water tanks on ship:  
Total fuel capacity:  
Total number of fuel tanks on ship:  
Marine Sanitation Device:  
Type:

Explain in detail how you will comply with the regulations regarding discharge in the Monument. Describe in detail. If applicable, attach schematics of the vessel's discharge and treatment systems:

Other fuel/hazardous materials to be carried on board and amounts:

Provide proof of a National Oceanic and Atmospheric Administration (NOAA) Office of Law Enforcement-approved Vessel Monitoring System (VMS). Provide the name and contact information of the contractor responsible for installing the VMS system. Also describe VMS unit name and type:

VMS Email:  
Inmarsat ID#:

\* Individuals MUST ENSURE that a type-approved VMS unit is installed and that its automatic position reports are being properly received by the NOAA OLE system prior to the issuance of a permit. To make sure your VMS is properly configured for the NOAA OLE system, please contact NOAA OLE at (808) 725-6110 or (808) 725-6100.

\* PERMITS WILL NOT BE ISSUED TO INDIVIDUALS ENTERING THE MONUMENT VIA VESSEL UNTIL NOAA OLE HAS CONTACTED THE MONUMENT PERMIT COORDINATOR WITH A 'POSITIVE CHECK' READING.

### **10. Tender information:**

On what workboats (tenders) will personnel, gear and materials be transported within the Monument? List the number of tenders/skiffs aboard and specific types of motors:  
PMNM staff will lead shoreline removal and small boat operations, and only for day trips to Kure Atoll, Midway Atoll, Pearl & Hermes Atoll, Lisianski Island, Laysan Island and French Frigate Shoals.

## **Additional Information for Land Based Operations**

**11. Proposed movement of personnel, gear, materials, and, if applicable, samples:**  
NOAA PIFSC ESD will lead shoreline removal and small boat operations, and only for day trips to Kure Atoll, Midway Atoll, Pearl & Hermes Atoll, Lisianski Island, Laysan Island and French Frigate Shoals.

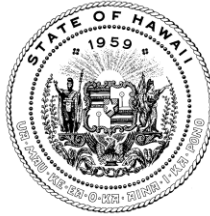
**12. Room and board requirements on island:**  
N/A

**13. Work space needs:**  
N/A

### DID YOU INCLUDE THESE?

- Map(s) or GPS point(s) of Project Location(s), if applicable
- Funding Proposal(s)
- Funding and Award Documentation, if already received
- Documentation of Insurance, if already received
- Documentation of Inspections
- Documentation of all required Federal and State Permits or applications for permits

DAVID Y. IGE  
GOVERNOR OF HAWAII



**STATE OF HAWAII**  
**DEPARTMENT OF LAND AND NATURAL RESOURCES**

POST OFFICE BOX 621  
HONOLULU, HAWAII 96809

SUZANNE D. CASE  
CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA  
FIRST DEPUTY

M. KALEO MANUEL  
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
BUREAU OF CONVEYANCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
CONSERVATION AND COASTAL LANDS  
CONSERVATION AND RESOURCES ENFORCEMENT  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
KAHOOLAWE ISLAND RESERVE COMMISSION  
LAND  
STATE PARKS

October 9, 2020

TO: Division of Aquatic Resources File

THROUGH: Suzanne D. Case, Chairperson

FROM: Brian J. Neilson, Administrator  
Division of Aquatic Resources

SUBJECT:

DECLARATION OF EXEMPTION FROM THE PREPARATION OF AN ENVIRONMENTAL ASSESSMENT UNDER THE AUTHORITY OF CHAPTER 343, HRS AND CHAPTER 11-200 HAR, FOR PAPAĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT RESEARCH PERMIT TO MS. JENNIFER LYNCH, CO-DIRECTOR, CENTER FOR MARINE DEBRIS RESEARCH (CMDR), HAWAII PACIFIC UNIVERSITY (HPU), FOR ACCESS TO STATE WATERS TO CONDUCT MARINE DEBRIS ORIGIN RESEARCH ACTIVITIES UNDER PERMIT PMNM-2020-015.

The following permitted activities are found to be exempted from preparation of an environmental assessment under the authority of Chapter 343, HRS and Chapter 11-200, HAR:

Project Title: Papahānaumokuākea Marine National Monument Research Permit to Ms. Jennifer Lynch, Co-Director, Center for Marine Debris Research (CMDR), Hawaii Pacific University (HPU), to Conduct Marine Debris Origin Research Activities.

Permit Number: PMNM-2020-015

Project Description: The applicant proposes to conduct research on the country and fishery of origin of marine debris collected during the Fall 2020 PMNM Marine Debris Project expedition and/or other separately permitted expeditions planned between October 24<sup>th</sup>, 2020 - October 23<sup>rd</sup>, 2021. Up to 50 large net samples would be collected during the marine debris project and set aside for further sampling in Honolulu. Analyses would include measurements of line and mesh as well as polymer composition and identification in order to determine the fishery of origin. Prior to collection, a GPS point and photos would be taken of each net sample in its original state.

One research technician would access shallow water and coastal terrestrial areas of Laysan Island, Lisianski Island, Kure Atoll, Midway Atoll, Pearl and Hermes Reef, and French Frigate Shoals to conduct

these activities. All personnel access, marine debris collection, vessel transport via the M/V Imua (or TBD Additional Vessel), and other activities related to the associated marine debris mission would be separately permitted under PMNM-2020-001 (Co-Trustee).

To safeguard Monument resources the applicant would abide by the following PMNM Best Management Practices (BMPs) while conducting the aforementioned activities within the PMNM: Human Hazards to Seabirds Briefing (BMP #003), General Storage and Transport Protocols for Collected Samples (BMP #006), Special Conditions and Rules for Moving Between Islands / Atolls and Packing for Field Camps (BMP #007), Reducing Light Impact to Sea Turtles (BMP #009), Marine Wildlife Viewing Guidelines (BMP #010), Disease and Introduced Species Prevention Protocol for Permitted Activities in the Marine Environment (BMP #011), and Best Practices for Maritime Heritage Sites (BMP #017).

This activity would benefit the monument by sourcing nets to their fishery of origin, allowing for the development of framework to mitigate and prevent derelict fishing gear pollution in the future. The activities will directly support the Monument Management Plan (MMP) as described in:

**Strategy MD-1: Remove and prevent marine debris throughout the life of the plan.** *Continued support of existing debris removal programs, including the Marine Debris Program, is essential. Existing debris, particularly large fishing nets, poses an acute entanglement threat to endangered and threatened species. The only way to decrease entanglement rates from existing debris is to remove the nets from beaches and the nearshore areas, including those around French Frigate Shoals, Maro Reef, Lisianski Island, Laysan Island, Pearl and Hermes Atoll, Midway Atoll, and Kure Atoll. Nets and other debris also combine into large masses that are moved around by wave energy. These masses scour the bottom, abrading and breaking coral colonies, preventing colonization, and damaging other benthic resources. Removal of debris, particularly large nets that have come into shallow waters, is expensive and dangerous.*

*Programs to identify, track, and remove nets both within and outside the Monument, combined with incentive programs for fishermen to pick up these nets and bring them back to shore for disposal, may be more cost effective and would prevent damage to fragile reef ecosystems. The MMB will work in partnership with the Coast Guard and other marine debris partners to provide incentives for fishing vessels to participate in disposal programs and still comply with Coast Guard policies regarding the transport of debris as “cargo-for-hire.”*

(PMNM MMP Vol. 1, p. 195, 2008).

**Strategy MD-2: Investigate the sources, types, and accumulation rates of marine debris within 5 years.** *The MMB, in partnership with other governmental and nongovernmental entities, will conduct research into mechanisms to locate, track, and remove debris at sea before it reaches fragile Monument ecosystems. This program will attempt to use unmanned aircraft systems to locate the debris at sea and may also take advantage of remote sensing systems being researched for Monument enforcement purposes to detect large debris conglomerates. Once an area of high concentration of debris is located, unmanned aircraft can be launched from vessels to find individual conglomerations of debris and target removal efforts. These initiatives will help direct the cleanup effort to where it will have the greatest effect, with limited resources. Using satellite imagery, NMFS is also working with partners to design a statistical survey to census marine debris in the north Pacific. This information will provide us with an estimate of*

*the magnitude of the marine debris problem in the Pacific. In addition, NMFS and its partners are working to track debris movement in the Pacific Ocean, including areas within the Monument, through the use of satellite-tracked drifter buoys.*

*Another project is to address the small plastic debris being fed to young albatrosses. Much of the debris being fed to young albatross is picked up at sea by the adults. Monitoring the debris that washes up onto the beaches at Midway Atoll will provide a snapshot of what is in the waters surrounding the Monument islands, the most economical approach to such identification. This study will also allow us to begin to identify sources of the debris and then to develop a strategy for use of this information for prevention through education and outreach targeting key stakeholders and user-groups that are associated with the behaviors that produce these forms of marine debris.*

*(PMNM MMP Vol. 1, p. 197, 2008).*

Consulted Parties:

*The permit application was sent out for review and comment to the following scientific and cultural entities: Hawaii Division of Aquatic Resources, Hawaii Division of Forestry and Wildlife, Papahānaumokuākea Marine National Monument (NOAA/NOS), NOAA Pacific Islands Regional Office (NOAA-PIRO), United States Fish and Wildlife Service Hawaiian and Pacific Islands National Wildlife Refuge Complex Office, and the Office of Hawaiian Affairs (OHA). In addition, the permit application has been posted on the Monument Web site, giving the public an opportunity to comment. The application was posted within 40 days of its receipt, in accordance with the Monument's Public Notification Policy.*

Exemption Determination: After reviewing §11-200-8, HAR, including the criteria used to determine significance under §11-200-12, HAR, DLNR has concluded that the activities under this permit would have minimal or no significant effect on the environment and that issuance of the permit is categorically exempt from the requirement to prepare an environmental assessment based on the following analysis:

1. All activities associated with this permit have been evaluated as a single action. Since this permit involves an activity that is precedent to a later planned activity, i.e., the same study methodology used throughout the permit period, the categorical exemption determination here will treat all planned activities as a single action under §11-200-7, HAR.

2. The Exemption Class #5 Scientific Research with no Serious or Major Environmental Disturbance, Appears to Apply. § 11-200-8(a)(5), HAR, exempts the class of actions that involve “basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource.” This exemption class has been interpreted to include the collection of marine debris for research activities, such as those being proposed.

The proposed activities here appear to fall squarely under the exemption class identified under HAR §11-200-8(a)(5), and as described under the 2015 DLNR under exemption class #5, exempt item #13, which includes “research or experimental management actions that the Department declares are designed specifically to monitor, conserve, or enhance native species or native species' habitat”.

As discussed below, no significant disturbance to any environmental resource is anticipated. Thus, so long as the below considerations are met, an exemption class should include the action now contemplated.

3. Cumulative Impacts of Actions in the Same Place and Impacts with Respect to the Potentially Particularly Sensitive Environment Will Not be Significant. Even where a categorical exemption appears to include a proposed action, the action cannot be declared exempt if “the cumulative impact of planned successive actions in the same place, over time, is significant, or when an action that is normally insignificant in its impact on the environment may be significant in a particularly sensitive environment.” HAR § 11-200-8.B. To gauge whether a significant impact or effect is probable, an exempting agency must consider every phase of a proposed action, any expected primary and secondary consequences, the long-term and short-term effects of the action, the overall and cumulative effect of the action, and the sum effects of an action on the quality of the environment. HAR § 11-200-12. Examples of actions which commonly have a significant effect on the environment are listed under HAR § 11-200-12.

Since the designation of the Monument, a number of marine debris removal projects have been undertaken to date in State Waters that have effectively mitigated any harm to the resources therein. There were no deleterious effects from the previous projects. With this in mind, significant cumulative impacts are not anticipated as a result of this activity, and numerous safeguards further ensure that the potentially sensitive environment of the project area will not be significantly affected. All activities will be conducted in a manner compatible with the management direction of the Monument Proclamation in that the activities do not diminish, but rather enhance monument resources, qualities, and ecological integrity, or have any indirect, secondary, cultural, or cumulative effects. The joint permit review process did not reveal any anticipated indirect or cumulative impacts, nor did it raise any cultural concerns, that would occur as a result of these activities.

Since no significant cumulative impacts or significant impacts with respect to any particularly sensitive aspect of the project area are anticipated, the categorical exemptions identified above should remain applicable.

4. Overall Impacts will Probably be Minimal and Insignificant.

Again, any foreseeable impacts from the proposed activity will probably be minimal, and further mitigated by general and specific conditions attached to the permit. Specifically, all research activities covered by this permit will be carried out with strict safeguards for the natural, historic, and cultural resources of the Monument as required by Presidential Proclamation 8031, other applicable law and agency policies and standard operating procedures.

Conclusion. Upon consideration of the permit to be approved by the Board of Land and Natural Resources, the potential effects of the above listed project as provided by Chapter 343, HRS and Chapter 11-200 HAR, have been determined to be of probable minimal or no significant effect on the environment and exempt from the preparation of an environmental assessment.