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

March 28, 2025

Board of Land and
Natural Resources
Honolulu, Hawaii

Request for Authorization and Approval to Issue a Papahānaumokuākea Marine National Monument Conservation and Management Permit to Mr. James Morioka, Papahānaumokuākea Marine Debris Project, Inc., a Hawaii nonprofit corporation (PMDP), for Access to State Waters to Survey and Remove Marine Debris and Disentangle Marine Life as Needed within the Waters of the Northwestern Hawaiian Islands

SUMMARY

The Division of Aquatic Resources (DAR) hereby submits a request for your authorization and approval for issuance of a Papahānaumokuākea Marine National Monument Conservation and Management Permit to Mr. James Morioka, Papahānaumokuākea Marine Debris Project (PMDP).

BACKGROUND LAW

The Board of Land and Natural Resources, by the Department of Land and Natural Resources (DLNR) Divisions of Aquatic Resources & Forestry and Wildlife, permits certain otherwise prohibited or regulated activities on or in its lands and waters, pursuant to Hawaii Revised Statutes (HRS) § 187A-6, 183D-6, and 195D-4; Hawaii Administrative Rules (HAR) § 13-60.5-5, 13-60.5-6, 13-126-9 and 13-126-10, and all other applicable laws and regulations.

DURATION AND LOCATION

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

- Lālo (French Frigate Shoals)
- Kamokuokamohoali‘i (Maro Reef)
- Kamole (Laysan Island)
- Kapou (Lisianski Island)
- Manawai (Pearl and Hermes Atoll)
- Kuaihelani (Midway Atoll)
- Hōlanikū (Kure Atoll)

The activities covered under this permit would be authorized to occur via three separate missions, two cruises and one flight. The flight will travel to Kuaihelani on April 14 and return on May 1, 2025, with gear traveling to Kuaihelani on M/V Imua February 6-11, 2025 and returning to Honolulu on the M/V Imua May 6-13, 2025. The first cruise will take place between August 14, 2025 and September 12, 2025. The second cruise will take place between September 22, 2025 and October 21, 2025. Expedition dates may vary if unforeseen interruptions or delays occur. A separate permit (PMNM-2025-005) will cover any fundraising related to images collected of activities conducted under this permit, PMNM-2025-004.

PERSONS COVERED UNDER THIS PERMIT

PMDP requests 12 staff from the below list to participate in their first mission and 16 staff from the list for their second and third missions. There will be seven staff from the Hawai‘i Resource Group on the second and third mission. A final list of individuals covered under this permit will be included in a report to the permit coordinators.

PMDP Staff:

1. James Morioka (Executive Director) – Mission Lead PMDP-2025-02 – Lead Diver and Lead Small Boat Operator
2. Kevin O’Brien (PMDP) – Mission Lead PMDP-2025-03 – Lead Diver and Lead Small Boat Operator
3. Derek LeVault – Lead Diver and Lead Small Boat Operator
4. Andrew Sullivan-Haskins – Expedition Photographer, UAS Pilot, Lead Diver and Lead Small Boat Operator
5. Lauren Fraser – Lead Diver and Lead Small Boat Operator
6. Grant Ka‘ehukai Goin (PMDP), Diver and Small Boat Operator
7. Kau‘i Aguiar (PMDP), Diver and Small Boat Operator
8. Ossian Nichols (PMDP), Diver and Small Boat Operator
9. Matthias Kala‘i Sim (PMDP), Diver and Small Boat Operator
10. TBD (PMDP), Diver and Small Boat Operator
11. TBD (PMDP), Diver and Small Boat Operator
12. TBD (PMDP), Diver and Small Boat Operator
13. TBD (PMDP), Diver and Small Boat Operator
14. TBD (PMDP), Diver and Small Boat Operator
15. TBD (PMDP), Diver and Small Boat Operator
16. TBD (PMDP), Diver and Small Boat Operator
17. TBD (PMDP), Diver and Small Boat Operator
18. TBD (PMDP), Diver and Small Boat Operator
19. TBD (PMDP), Diver and Small Boat Operator
20. TBD (PMDP), Diver and Small Boat Operator

M/V Imua Staff:

1. Russell Bender (Hawai‘i Resource Group – HRG), Captain, M/V Imua
2. TBD (HRG), First Mate, M/V Imua
3. TBD (HRG), Second Mate, M/V Imua 19
4. TBD (HRG), Lead Engineer, M/V Imua
5. TBD (HRG), Deckhand, M/V Imua
6. TBD (HRG), Deckhand, M/V Imua
7. TBD (HRG), Cook, M/V Imua

INTENDED ACTIVITIES

The proposed permit activities would allow for large scale marine debris survey and removal operations within Papahānaumokuākea Marine National Monument (Monument).

A similar permit was issued in 2024 (PMNM-2024-003). New modifications/activities to the 2025 permit application include the following: (1) additional work in the water at Kuaihelani this year on the fly-in and fly-out mission and (2) photographic collection for fundraising purposes (detailed in the Supplemental Special Ocean Use Permit Application Questions attachment). A separate permit (PMNM-2025-005) will cover any fundraising related to images collected of activities conducted under this permit, PMNM-2025-004. A biosecurity plan has not been finalized but will be coordinated between subject-matter experts at the Division of Aquatic Resources and other MMB agencies in coordination with PMDP in order for the permit to be considered valid for activities in the nuisance alga mitigation zones (NAMZ).

The NOAA Northwestern Hawaiian Islands (NWHI) Marine Debris Project (hereinafter referred to as the 'Project') began in 1996 and was led by NOAA Fisheries and other agency partners through 2021. The Project has demonstrated over time the necessity of large-scale marine debris removal operations for the protection and safety of marine wildlife, specifically the endangered Hawaiian monk seal and threatened green sea turtle. Between 2015 and 2021, the Project was co-led and co-managed by James Morioka (Executive Director, Papahānaumokuākea Marine Debris Project (PMDP), and Kevin O'Brien (President and Founder, PMDP), while still operating under NOAA, prior to the creation of PMDP in 2019. PMDP is proposing to lead the Project in the PMNM indefinitely, after partnering with NOAA, U.S. Fish and Wildlife Services (USFWS), and the State of Hawai'i Department of Land and Natural Resources (DLNR) on three successful field marine debris removal missions in 2020-2021 (operating under the Co-Trustee permit).

PMDP has independently orchestrated and executed four successful field missions from 2022-2024 under its own permit, removing 202,950 pounds in 2022, 212,160 pounds in 2023, and 330,250 pounds in 2024. PMDP plans to remove a minimum of 115,000 pounds of marine debris from PMNM each year through 2026.

Specific objectives of the Papahānaumokuākea Marine Debris Project (PMDP) are as follows:

- Surveying for and removing derelict fishing gear (DFG) from shallow coral reef environments (0-30 ft depth) through swim surveys, diver propulsion vehicle surveys, aerial marine debris surveys, and tow-board surveys.

- Surveying for and removing DFG, plastics, and other entanglement hazards from shoreline habitats through manual shoreline surveys and aerial marine debris surveys.

- Transport of marine debris to and disposal of marine debris on O'ahu through the use of customized PMDP storage bins and supersacks.

- Opportunistically removing large marine debris items such as buoys, derelict small boats, and other materials.

- Evaluating the rates of marine debris accumulation and assessing its abundance and distribution on coral reefs and shorelines.

- Assessing ecological impacts of DFG on coral reef environments through photographic surveys.

- Disentangling protected wildlife, including Hawaiian monk seals, sea turtles, and sea birds, from marine debris when human intervention is necessary or possible in coordination with relevant co-managing agencies.

- Conducting opportunistic surveys of Hawaiian monk seals and sea turtles, including capturing and tagging weaned Hawaiian monk seal pups when appropriate.

- Conducting Native Hawaiian cultural protocols to include hoʻokupu (offering) consisting of ti leaf and if permitted, wai (freshwater), paʻakai (salt), ʻawa (dried Piper methysticum), kalo (taro), or ulu (breadfruit).

PMDP intends to film/photograph protected wildlife (including Hawaiian monk seals, sea turtles, and sea birds) interacting or being affected by the threats of marine debris, while strictly following all PMNM BMPs. All footage (film/photograph) will be provided to the four Co-Trustees (NOAA, U.S. Fish and Wildlife Service, State of Hawaiʻi, Office of Hawaiian Affairs) upon return from PMNM. PMDP also intends to capture images for fundraising purposes (separately permitted).

Purpose and Need

The proposed activities would be in support of priorities identified in Monument management and recovery plans, included but not limited to: 1) Papahānaumokuākea Marine National Monument (PMNM) Management Plan (hereinafter referred to as the MMP) (3.3: Reducing Threats to Monument Resources – 3.3.1: Marine Debris (MD) Action Plan – "Reduce the adverse effects of marine debris to PMNM resources and reduce the amount of debris entering the North Pacific Ocean"), 2) Hawaiʻi Marine Debris Action Plan (HI- MDAP), 3) Recovery Plan for the Hawaiian Monk Seal, 4) Mai Ka Po Mai: A Guidance Document for Papahānaumokuākea, 5) Endangered Species Act of 1973 (ESA) and 6) Marine Mammal Protection Act of 1972 (MMPA). Other priorities are listed in the attached application beginning on page 5 for more information.

The Hawaiian Archipelago (specifically the PMNM) is centrally located within the world's largest ocean gyre, the North Pacific Gyre and thus becomes a large depository for marine debris. The PMNM, a United Nations Educational, Scientific, and Cultural Organization (UNESCO) World Heritage Site, is home to more than 7,000 marine species, 25% of which are endemic, found only in the Hawaiian Archipelago. Marine debris and derelict fishing gear adversely affect the wildlife and habitats of the PMNM either by directly entangling or harming marine animals (seals, turtles, whales, fish, and invertebrates) or adversely impacting corals via large nets rolling across fragile coral ecosystems. Additionally, there is a serious and growing concern for the entanglement of monk seals, particularly with no formal Project currently led by NOAA.

Papahānaumokuākea is deeply significant in the ancestry of Kānaka Maoli (Native Hawaiian people), representing an extension of their genealogy tracing back to the elemental energies that birthed the Pae ʻāina Hawaiʻi (Hawaiian archipelago). Venturing into Papahānaumokuākea means reconnecting with Hawaiian ancestral ties, transitioning from Ao (light, day; the realm of humans) to Pō (dark, night; the realm of the gods). This place, frequented by kūpuna (elders) for thousands of years, holds profound cultural and genealogical significance, as reflected in the Kumulipo, a Hawaiian cosmogonical genealogy chant.

Methods/Procedures:

In-Water Marine Debris Survey and Removal Operations:
Three methods are utilized for the in-water survey and removal of derelict fishing gear (DFG):

- Tow-board Surveys: Tow-board surveys, regularly referred to 'manta tow', allows for rapid visual surveys in shallow water (0-30 ft depth) and maximum area coverage. This method requires two divers to use breath-hold techniques while being towed behind a 19-ft inflatable boat at 1-2 knots across fringing, barrier, or back reefs.

- Swim Surveys: Swim surveys are primarily utilized within atoll lagoons around reticulated reefs or in areas that are too shallow or intricate to conduct tow-board operations effectively.

- Diver Propulsion Vehicle (DPV) Surveys: DPV assisted swim surveys may be utilized within atoll lagoons around reticulated reef areas to cover more reef area per unit of time, allowing for more marine debris to be removed from the environment.

Shoreline Marine Debris Survey and Removal Operations:
Shoreline Surveys: PMDP staff will walk the shorelines (between low-tide line and vegetation on shore) of the islands and atolls within PMNM to survey for and remove marine debris. The Project primarily focuses on surveying for and removing entanglement and ingestion hazards to wildlife. Once the marine debris is identified, collected, and staged at a 'pick-up point', the 19-ft. inflatable boats approach accessible shorelines to safely load with the marine debris to transport back to the ship (and ultimately transport back to Honolulu, HI for proper disposal).

Aerial Marine Debris Survey Operations:
Unmanned Aerial Systems (UAS) Surveys: UAS surveys are expected to take place at all islands/atolls (if permissible under current regulations) and deployed and retrieved from the inflatable boat. Strict UAS protocols and BMPs will be followed and enforced for aerial survey operations. Flights will take place between 100 ft. minimum (over land or reef) and 400 ft. maximum altitude (if permissible).

Wildlife Disentanglement Operations:
The Project often encounters marine wildlife entangled in marine debris. Marine wildlife in the PMNM are protected and managed by the State and Federal government, and are protected by laws, rules and regulations that prohibit the interaction and intervention with wildlife. If

permitted, PMDP staff who are fully qualified, certified, and trained to handle, restrain, and disentangle marine wildlife will assess the situation and report its outcomes to the appropriate office for guidance and next steps.

- Hawaiian Monk Seal Disentanglement Operations: Hawaiian monk seals are often entangled in marine debris and require intervention and disentangling to allow for survival. If/when an entangled Hawaiian monk seal is identified, the PMDP staff will notify the NOAA NMFS PIFSC PSD Hawaiian Monk Seal Research Program (HMSRP) of the entangled seal. A full assessment of the seal's health and surrounding habitat will be conducted and relayed to the HMSRP office. James Morioka (Executive Director, PMDP) is a professionally trained Hawaiian monk seal handler (worked for HMSRP 2011-2013) and has helped handle and/or disentangle dozens of seals in the PMNM. In collaboration with PMDP, James Morioka helped handle and disentangle two adult, female, Hawaiian monk seals in 2021. If permitted, James Morioka or other authorized persons on the NOAA NMFS Permit (Permit #27552), would lead a team to handle, restrain, and disentangle the endangered seal through: 1) manual restraint, 2) hoop-net restraint, or 3) stretcher-net restraint protocols and procedures.

- Marine Turtle Disentanglement Operations: Marine turtles are often entangled in marine debris, particularly in shallow water coral reef environments. If a turtle is entangled, the team will assess the turtle and its surrounding environment. If permitted and the disentangling scenario does not cause further risk to the staff and Project, the team will handle the turtle, holding its head above water so that it can breathe effectively, and complete their disentanglement.

<u>Marine Debris Transport and Disposal:</u>
Marine debris collected from within the Papahānaumokuākea Marine National Monument will be managed as follows (for more details, please refer to the Supplemental Biosecurity Plan):

1. All marine debris will be stored in PMDP's specialized marine debris storage bins or placed in super sacks.

2. When derelict fishing nets are stored in PMDP's marine debris storage bins, they will be cut to appropriate sizes in the field. These nets will remain contained in the bins until they arrive in Honolulu. Upon arrival, the marine debris storage bins will be craned off the ship wholesale and transported directly to either:

    a. H-Power/Covanta Energy through Hawaii's "Waste to Energy" initiative for direct incineration, or
    b. Plastic Research Recycling Facility Center for Marine Debris Research for recycling through Hawaii Pacific University's "Nets to Roads" initiative.

3. All other marine debris not stored in PMDP's marine debris storage bins, primarily ocean plastics, will be stored in supersacks on the ship's deck until they reach Honolulu. Upon arrival in Honolulu, this debris will be craned off the ship and placed in roll-off containers provided by Radius Recycling. These containers will then be transported to

HPower/Covanta for incineration and disposal.

More detailed information about this project can be found in the attached application.

ADHERANCE TO FINDINGS CRITERIA, BMPs, AND OTHER SAFETY PROTOCOLS:

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

- ☒ Removing, moving, taking, harvesting, possessing, injuring, disturbing, or damaging any living or nonliving Monument resource
- ☒ Anchoring a vessel
- ☒ 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
- ☒ Swimming, snorkeling, or closed or open circuit SCUBA diving within any Special Preservation Area or Midway Atoll Special Management Area

Monument Management Plan Strategies
The activities proposed by the applicants directly support the Monument Management Plan (PMNM MMP Vol. 1, 2008), including but not limited to the following priority management needs:

- Strategy MD-1: Remove and prevent marine debris throughout the life of the plan:
    - Activity MD-1.1: Continue working with partners to remove marine debris in the Monument and reduce additional debris entering the Monument;
    - Activity MD-1.2: Catalog, secure, contain, and properly remove hazardous materials that wash ashore in the NWHI;

- Strategy MD-2: Investigate the sources, types, and accumulation rates of marine debris within 5 years;
    - Activity MD-2.1: Work with partners on marine debris studies;
    - Activity MD-2.2: Develop and standardize marine debris monitoring protocols for marine and terrestrial habitats;

- Strategy MD-3: Develop outreach materials regarding marine debris within 2 years.
    - Activity MD-3.1: Work with partners to continue to develop and implement an outreach strategy for marine debris.

Best Management Practices (BMPs)
To safeguard Monument resources the applicants will abide by all applicable PMNM Best Management Practices (BMPs) while conducting the aforementioned activities within PMNM.

BMP Number	Title	Download
001	Marine Alien Species Inspection Standards for Maritime Vessels	PDF
002	Protocol for Acquiring Avian Blood Samples	PDF
003	Human Hazards to Seabirds Briefing	PDF
004	Best Management Practices for Boat Operations and Diving Activities	PDF
005	Protocols to Reduce Impact to the Laysan Finch	PDF
006	General Storage and Transport Protocols for Collected Samples	PDF
007	Best Management Practices for Terrestrial Biosecurity	PDF
008	Seabird Protocols Necessary for Conducting Trolling Research and Monitoring in Papahānaumokuākea Marine National Monument	PDF
009	Best Practices for Minimizing the Impact of Artificial Light on Sea Turtles	PDF
010	Marine Wildlife Viewing Guidelines	PDF
011	Disease and Introduced Species Prevention Protocol for Permitted Activities in the Marine Environment, Papahānaumokuākea Marine National Monument (Monument)	PDF
012	Precautions for Minimizing Human Impacts on Endangered Land Birds	PDF
015	Nonnative Species Inspection Requirements at Midway Atoll	PDF
016	Best Management Practices for Activities on Nihoa	PDF
017	Best Management Practices for Maritime Heritage Sites	PDF
018	Rodent Prevention and Inspection Standards for Permitted Vessels	PDF
019	Best Management Practices for Activities on Mokumanamana (Necker Island)	PDF
020	Best Management Practices to minimize the spread of nuisance alga	PDF

For activities related to the nuisance algal outbreak of *Chondria tumulosa* at Kuaihelani (Midway Atoll), Manawai (Pearl and Hermes Atoll), and Hōlanikū (Kure Atoll), BMP #20 requires a biosecurity plan which is currently under review. Permitted activities at these atolls will be subject to this plan once it is approved by all co-managing agencies. Activities at these atolls will not occur without an approved biosecurity plan.

PMDP has actively collaborated with the Native Hawaiian community and intends to continue this collaboration indefinitely. Specifically, PMDP has partnered with the Office of Hawaiian Affairs (OHA) and PMNM's Native Hawaiian Program Specialist Kalani Quiocho, to develop a culture-based strategy for the Project. This strategy aims to enhance inclusivity and collaboration with the Native Hawaiian community, facilitating access to the PMNM, creating culture-based outreach materials, and adhering to traditional protocols and procedures while in the field. The following excerpt is included in the PMDP application: *Papahānaumokuākea epitomizes 'āina momona (fat lands, fertile or rich lands). It serves as a tangible example of how the 'āina should abundantly produce resources, holding immense cultural significance. From the perspective of a Kānaka Maoli worldview, understanding these mauka to makai (mountain to sea, land to ocean) connections is vital for indigenous knowledge. The flourishing ecosystems and habitats of*

Papahānaumokuākea act as a living testament, aiding in comprehending the stories, history, and relationships practiced by kūpuna (ancestors). It provides a living space for Kānaka Maoli to reconnect and expand upon cultural practices. The removal of marine debris becomes a crucial aid to safeguard, perpetuate, and enhance this special place, its ecosystem, and its cultural resources for future generations.

REVIEW PROCESS:

The permit application was sent out for review and comment to the following scientific and cultural entities: Hawai‘i Division of Aquatic Resources, Hawai‘i 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 was posted on the Monument website, 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

MMB Agency Reviewer Questions and Applicant Responses:

1. ONMS would like to request that we acknowledge PMDP's challenges in meeting biosecurity protocols for nets collected in NAMZs and to reiterate that we will continue to work towards more manageable solutions, including those for the collection of nets with visible nuisance algae present.

Mahalo, ONMS

2. Can PMDP forward any information on the abundance of C. tumulosa during net surveys on the eastern backreef of Manawai as that is a very shallow and difficult place to access with our vessels. I circled the area I'm referring to in the image below taken from pg 23 of their biosecurity plan.

Map of Proposed Operations at Manawai, Kuaihelani, and Hōlanikū:

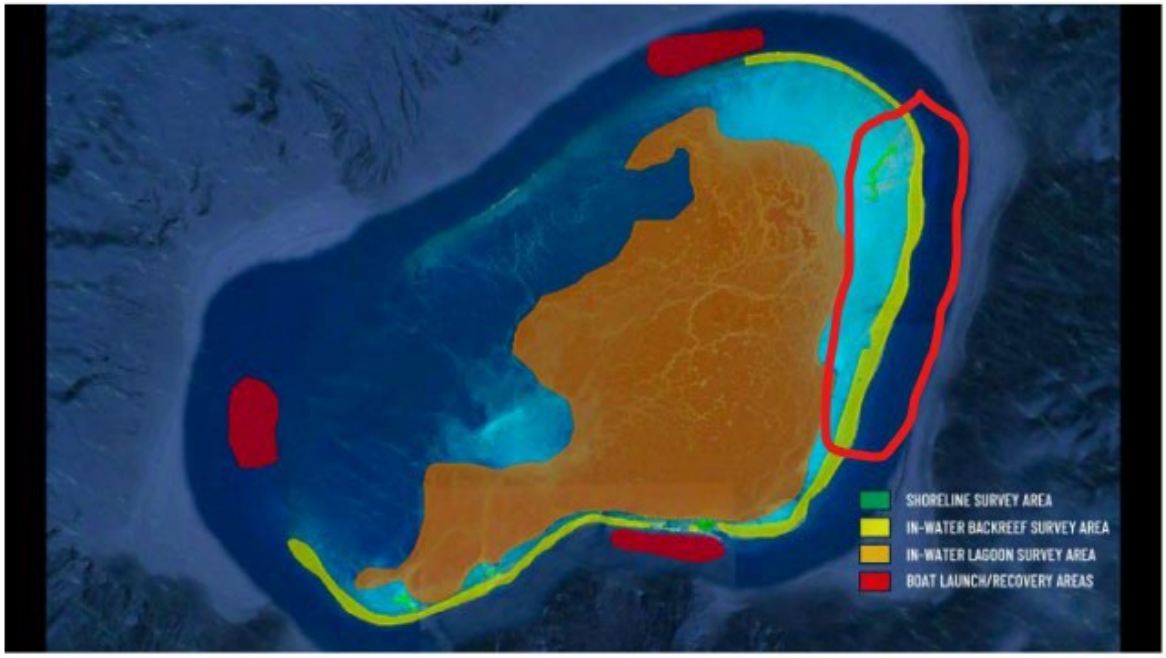

Image 8. Map of Manawai (Pearl and Hermes Atoll) showing proposed areas for boat launch, recovery, and marine debris survey and removal operations.

Yes, I will review our ArcGIS in-water database to identify any specific coordinates of Chondria tumulosa on the eastern backreef of Manawai (pg. 23). xx

3. Please ensure existing sharing of images for co-trustee use without restriction continues, includes imagery to be used for SOU purposes.

Yes, absolutely. All images will be shared with all Co-Trustees at the conclusion of each field mission.

4. Avoid anchoring on hard substrate to minimize impacts to benthic organisms. Anchors should be placed in sand whenever possible.

Yes, we strictly avoid anchoring on hard substrate to minimize impacts on benthic organisms.

5. This is a critically important project that needs to continue. PMDP has worked hard to make sure their biosecurity protocols are solid and are using the most up-to-date data to ensure their protocols are the best they can be. PMDP has the best interest of PMNM in mind with everything they do. PMDP has been doing this for years with a stellar track record. The benefits to PMNM are countless for the health of coral reef ecosystems and ESA species.

Mahalo, MMB. We take biosecurity very seriously at PMDP and remain committed to ensuring that all facets of our operations protect and preserve the wildlife and habitats of PMNM.

6. In adherence to BMP07 any Ho'okupu should not be composed of biological material on the quarantine Islands and nearshore waters. The list of Ho'okupu are approved for Kauihelani but not the quarantine islands.

We understand that ho'okupu, including any biological material such as ti leaf leis, will not be offered on quarantine islands or nearshore waters. Our ho'okupu ceremony takes place in the open ocean while crossing the boundary of Ao to Pō, many miles from any islands, with the closest being Mokumanamana.

Biosecurity Plan Specific Questions and Responses
All MMB agencies aside from DAR have expressed support and endorsement of the PMDP biosecurity plan. According to BMP #020, all MMB agencies must approve of the supplemental biosecurity plan. DAR has provided numerous comments to PMDP regarding the plan and a meeting occurred on March 7th to further discuss DAR's concerns directly with PMDP. DAR comments that are specific to the biosecurity plan are not included here but the comments made so far are included as an attachment. Future comments and questions will be incorporated in the final biosecurity plan that will be approved prior to validity of this permit and PMDP's departure for PMNM.The first unapproved version of the biosecurity plan is also attached.

ENVIRONMENTAL COMPLIANCE

NEPA / HEPA: (check-one)

☒ Categorical Exclusion / Exemption Type: 1 & 5
☐ EA
☐ EIS

Other Consultations: (ESA/MMPA Section 7; NHPA Section 106, etc.)

- An informal review of all aforementioned activities following section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA; 16 U.S.C. 1855(b)) was conducted. The outcome of this review may have required the applicant to adhere to other NMFS-prescribed conditions; such conditions would be reflected in the PMNM permit, prior to issuance. The consultation is valid through 2027.
- The proposed activities are covered under PMNM's programmatic ESA Section 7 informal consultation with National Marine Fisheries Service (NMFS). The outcome of this consultation may have required the applicant to adhere to other NMFS-prescribed conditions; such conditions would be reflected in the PMNM permit, prior to issuance. The consultation is valid through 2027.
- NOAA previously conducted a Programmatic Environmental Assessment (PEA or EA) under the National Environmental Policy Act (NEPA), resulting in a Finding of No Significant Impact (FONSI) in June 2005 (valid indefinitely) for the Project. PMDP's operation strictly adheres to all existing NOAA protocols and procedures, ensuring the safe execution of the mission.

The Department has made an exemption determination for this permit in accordance with Chapter 343, HRS, and Chapter 11-200.1, HAR. See Attachment ("DECLARATION OF EXEMPTION FROM THE PREPARATION OF AN ENVIRONMENTAL ASSESSMENT UNDER THE AUTHORITY OF CHAPTER 343, HRS AND CHAPTER 11-200.1 HAR, FOR A PAPAHĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT CONSERVATION AND MANAGMENT PERMIT TO MR. JAMES MORIOKA, PAPAHĀNAUMOKUĀKEA MARINE DEBRIS PROJECT (PMDP) FOR ACCESS TO STATE WATERS TO SURVEY AND REMOVE MARINE DEBRIS AND DISENTANGLE MARINE LIFE AS NEEDED WITHIN THE WATERS OF THE NORTHWESTERN HAWAIIAN ISLANDS UNDER PERMIT PMNM-2025-004")

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

If so, please summarize past permits:

Conservation and Management Permits (marine debris removal): PMNM 2022-06, 2023-05, 2024-03

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 their 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 Conservation and Management 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:

The MMB is of the opinion that the Applicant has met the findings of Presidential Proclamation 8031 and this activity may be conducted subject to completion of all compliance requirements. The MMB concurs with the special conditions recommended by NOAA, USFWS, ONMS, DAR, DOFAW and OHA staff.

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 review and accept the declaration of exemption for purposes of recordkeeping requirements of chapter 343, HRS, and chapter 11-200.1, HAR.

3. That the Board authorize and approve a Conservation and Management Permit to Mr. James Morioka, Papahānaumokuākea Marine Debris Project, for Access to State Waters to survey and remove marine debris and disentangle marine wildlife as needed within the waters of the Northwestern Hawaiian Islands, with the following special conditions:

    a. This permit is not to be used for nor does it authorize the sale of collected organisms. Under this permit, the authorized activities must be for noncommercial purposes not involving the use or sale of any organism, by-products, or materials collected within the Monument for obtaining patent or intellectual property rights.

    b. The permittee may not convey, transfer, or distribute, in any fashion (including, but not limited to, selling, trading, giving, or loaning) any coral, live rock, or organism collected under this permit without the express written permission of the Co-Trustees.

    c. To prevent introduction of disease or the unintended transport of live organisms, the permittee must comply with the disease and transport protocols as well as BMPs and the final version of a Supplemental Chondria Biosecurity Plan (included as an attachment) that is approved by the Division of Aquatic Resources (DAR) and the Monument Management Board (MMB)

    d. Tenders and small vessels must be equipped with engines that meet EPA emissions requirements.

    e. 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.

    f. If there is any Hawaiian monk seal or any other protected species in the area when performing any permitted activity shall cease until the animal(s) depart the area, except as permitted for specific management of that species.

    g. No fishing is allowed in State Waters except as authorized under State law for subsistence, traditional and customary Native Hawaiian practices.

    h. 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,

Brian J. Neilson, Administrator
Division of Aquatic Resources

APPROVED FOR SUBMITTAL

Dawn N. S. Chang, Chairperson
Board of Land and Natural Resources

Attachments:

1) Application
2) Supplemental Special Ocean Use Questions (for collecting images for fundraising purposes)
3) Draft PMDP 2025 Supplemental Chondria Biosecurity Plan
4) DAR Agency Questions on the Biosecurity Plan
5) Declaration of Exemption ("DE") from the Preparation of an Environmental Assessment under the Authority of Chapter 343, HRS & Chapter 11-200.1 HAR

Papahanaumokuakea Marine National Monument

CONSERVATION AND MANAGEMENT Permit Application

NOTE: ***This Permit Application (and associated Instructions) are to propose activities to be conducted in the Papahanaumokuakea 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 Papahanaumokuakea 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.

Papahanaumokuakea 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 Papahanaumokuakea 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: James Motoharu Morioka

Affiliation: Papahanaumokuakea Marine Debris Project (PMDP) - U.S. 501(c)(3) non-profit organization

Permit Category: Conservation and Management; Special Ocean Use

Proposed Activity Dates: April 14 - October 21, 2025

- **PMDP-2025-01 (2025 Mission #1) - Shore-based mission at Kuaihelani (Midway Atoll)**
  - Tentative Dates: **April 14** *(M}* - **May 1** *(Th),* **2025 - 18 days**
    - Flights from Honolulu to Kuaihelani:
      - TBD Chartered Flight #1- April 14, 2025
      - TBD Chartered Flight #2 - April 16, 2025
    - Flight from Kuaihelani to Honolulu:
      - TBD Chartered Flight #3 - April 29, 2025
      - TBD Chartered Flight #4 - May 1, 2025
    - Gear Transport from Honolulu to Kuaihelani:
      - M/V Imua departing Honolulu - February 6, 2025
      - M/V arrival at Kuaihelani: ~February 11, 2025
    - Gear Transport from Kuaihelani to Honolulu:
      - M/V Imua departing Kuaihelani: ~May 6, 2025
      - M/V arrival at Honolulu: ~May 13, 2025

- **PMDP-2025-02 (2025 Mission #2) - Ship-based mission at all islands and atolls of Papahanaumokuakea**
  - Tentative Dates: **August 14** *(Th}* - **September 12** *(F},* **2025 - 30 days**
    - Proposed Vessel: M/V Imua
    - Gear Loading in Honolulu: August 13, 2025
    - Departure from Honolulu: August 14, 2025

- Arrival in Honolulu: September 12, 2025
- Gear Offloading in Honolulu: September 15, 2025

- **PMDP-2025-03 (2025 Mission #3) - Ship-based mission at all islands and atolls of Papahanaumokuakea**
  - Tentative Dates: **September 22** *{M}* - **October 21** *(T),* **2025 - 30 days**
    - Proposed Vessel: M/V Imua
    - Gear Loading in Honolulu: September 19, 2025
    - Departure from Honolulu: September 22, 2025
    - Arrival in Honolulu: October 21, 2025
    - Gear Offloading in Honolulu: October 22, 2025

Proposed Method of Entry (Vessel/Plane):

- PMDP-2025-01: Chartered Plane (Resort Air/Mid-Pac Jets)
- PMDP-2025-02: Chartered Vessel (M/V Imua)
- PMDP-2025-03: Chartered Vessel (M/V Imua)

Proposed Locations: Marine debris survey and removal efforts will occur across the following islands and atolls in the Northwestern Hawaiian Islands in the Papahanaumokuakea Marine National Monument (listed in order from east to west):

- Lalo (French Frigate Shoals)
- Kamokuokamohoali'i (Maro Reef)
- Kamole (Laysan Island)
- Kapou (Lisianski Island)
- Manawai (Pearl and Hermes Atoll)
- Kuaihelani (Midway Atoll)
- Holanik0 (Kure Atoll)

Hereinafter all islands and atolls will be referred to by their Hawaiian names.

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

- PMDP-2025-01: 12 PMDP staff
- PMDP-2025-02: 16 PMDP staff and 7 M/V Imua staff
- PMDP-2025-03: 16 PMDP staff and 7 M/V Imua staff

Estimated number of days in the Monument: 78

- PMDP-2025-01: 18 days
- PMDP-2025-02: 30 days
- PMDP-2025-03: 30 days

Description of proposed activities: (complete these sentences):

a.) The proposed activity would...

"allow for large-scale marine debris survey and removal operations to occur in the Monument in support of priorities identified in Monument management and recovery plans, included but not limited to: 1) Papahanaumokuakea Marine National Monument (PMNM) Management Plan (hereinafter referred to as the MMP) (specifically 3.3: Reducing Threats to Monument Resources - 3.3.1: Marine Debris (MD) Action Plan - "Reduce the adverse effects of marine debris to PMNM resources and reduce the amount of debris entering the North Pacific Ocean"), 2) Hawai'i Marine Debris Action Plan {HI-MDAP), 3) Recovery Plan for the Hawaiian Monk Seal, 4) Mai Ka Po Mai: A Guidance Document for Papahanaumokuakea, 5) Endangered Species Act of 1973 (ESA) and the 6) Marine Mammal Protection Act of 1972 (MMPA)."

The NOAA Northwestern Hawaiian Islands (NWHI) Marine Debris Project, henceforth referred to as the 'Project', commenced its operations in 1996 and was spearheaded by NOAA Fisheries in collaboration with various partner agencies until the year 2021. Over the years, the Project has underscored the imperative of conducting large-scale marine debris removal initiatives to safeguard marine wildlife, notably the endangered Hawaiian monk seal, threatened green sea turtle, and other marine species.

James Morioka (PMDP Executive Director) and Kevin O'Brien (PMDP President) previously led and managed the Project under NOAA's auspices until PMDP took over sole management in 2022. Since 2020, PMDP has led or partnered on ten {10) successful large-scale cleanups, successfully removing over 1 million pounds of marine debris from sensitive reefs, islands and atolls while rescuing countless entangled animals. In 2024 alone, PMDP removed 330,250 pounds of debris during 77 operational days within PMNM. For 2025, PMDP aims to remove an additional 200,000-300,000 pounds of marine debris over 78 days.

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

The Papahanaumokuakea Marine Debris Project (PMDP) will concentrate its efforts on achieving the following objectives:

- Surveying for and removing derelict fishing gear (DFG) from shallow coral reef environments (0-30 ft depth) at Lalo (French Frigate Shoals), Kamokuokamohoali'i (Maro Reef), Manawai (Pearl and Hermes Atoll), Kuaihelani (Midway Atoll), and Holanik0 (Kure Atoll). Opportunistically at Kamole (Laysan) and Kapou (Lisianski).
- Surveying for and removing DFG, plastics, and other entanglement hazards from shoreline habitats at Lalo (French Frigate Shoals), Kamole (Laysan Island), Kapou (Lisianski Island), Manawai (Pearl and Hermes Atoll), Kuaihelani (Midway Atoll), and Holanik0 (Kure Atoll).

- Evaluating the rates of marine debris accumulation and assessing its abundance and distribution on coral reefs and shorelines.
- Assessing ecological impacts of DFG on coral reef environments.
- Rescuing entangled protected wildlife, including Hawaiian monk seals, sea turtles, and sea birds, from marine debris when human intervention is necessary or possible.
- Conducting Unmanned Aerial Vehicle (UAV) surveys to detect marine debris and assess the abundance and distribution of marine debris on coral reefs and shorelines.
- Conducting Diver Propulsion Vehicle (DPV) surveys to aid in the detection of marine debris underwater.
- Conducting Native Hawaiian cultural protocols to include ho'okupu (ceremonial gift offering) consisting of ti leaf and if permitted, wai (freshwater), pa'akai (salt), 'awa (dried Piper methysticum), kalo (taro), or ulu (breadfruit).
- Opportunistically removing large marine debris items such as abandoned derelict vessels (ADVs), FAD/weather/tide buoys, and other material.
- Conducting opportunistic surveys of Hawaiian monk seals and sea turtles, including capturing and tagging weaned Hawaiian monk seal pups when appropriate.

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

"supporting priorities identified in Monument management and recovery plans, included but not limited to: 1) Papahanaumokuakea Marine National Monument (PMNM) Management Plan, 2) Hawai'i Marine Debris Action Plan (HI-MDAP), 3) Recovery Plan for the Hawaiian Monk Seal, 4) Mai Ka Po Mai: A Guidance Document for Papahanaumokuakea, 5) Endangered Species Act of 1973 (ESA) and the 6) Marine Mammal Protection Act of 1972 (MMPA)."

1. Papahanaumokuakea Marine National Monument (PMNM) Management Plan (MMP) (Link HERE)
Led by Monument Management Board (MMB)
Volume 1: December 2008

3.1: Understanding and Interpreting the NWHI.

- 3.3.1: Marine Conservation Science Action Plan.
  - Strategy Marine Conservation Science (MCS)-1: Continue and enhance research, characterization and monitoring of marine ecosystems for the life of the plan, as appropriate.
    - Activity MCS-1.1: Continue to characterize type and spatial distributions of shallow-water marine habitats to inform protection and management efforts.

- MCS-1.2: Continue monitoring of shallow-water coral reef ecosystems to protect ecological integrity.

o MCS-2: Assess and prioritize research and monitoring activities over the life of the plan.
- Theme of Natural Resources Science Plan (NRSP): Research on human impacts (marine debris).

o MCS-3: Communicate results of research and monitoring over the life of the plan.
- MCS-3.3: Include an educational component in marine research expeditions.
- MCS-3.4: Use materials gathered and created through research to develop or enhance education and outreach products.

- 3.1.2: Native Hawaiian Culture and History (NHCH) Action Plan.

o NHCH-2: Conduct, support, and facilitate Native Hawaiian cultural access and research of the NWHI over the life of the plan.
- NHCH-2.3: Facilitate cultural field research and cultural education opportunites annually.
- NHCH-2.6: Continue to facilitate Native Hawaiian cultural access.

o NHCH-3: Increase cultural resource management capacity across MMB agencies over the life of the plan.
- NHCH-3.2: Engage Native Hawaiian practicioners and cultural experts and the Native Hawaiian Cultural Working Group in the development and implementation of the Monument's management activities.
- NHCH-3.4: Identify and integrate Native Hawaiian traditional knowledge and management concepts into Monument management.

o NHCH-5: Provide cultural outreach and educational opportunities to serve the Native Hawaiian community and the general public over the life of the plan.
- NHCH-5.1: Integrate Native Hawaiian values and cultural information into general outreach and education programs.
- NHCH-5.2: Develop a culturally based strategy for education and outreach within the Native Hawaiian community.

3.2 : Conserving Wildlife and Habitats.

- 3.2.1: Threatened and Endangered Species (TES) Action Plan.

o TES-1: Support activities that advance recovery of the Hawaiian monk seal for the life of the plan.
- TES-1.1: Support marine debris removal activities to promote recovery.
- TES-1.3: Conserve Hawaiian monk seal habitat.
- TES-1.5: Support outreach and education on Hawaiian monk seals.

- TES-2: Determine the status of cetacean populations and verify and manage potential threats over the life of the plan.
  - TES-2.3: Monitor, characterize, and address the effects of marine debris on cetaceans in the Monument.
- TES-3: Ensure that nesting populations of green turtles at source beaches are stable or increasing over the life of the plan.
  - TES-3.2: Protect and manage nesting and basking habitat.
  - TES-3.3: Protect and manage marine habitat, including foraging areas and migration routes.

- 3.2.2: Migratory Birds {MB) Action Plan.
  - MB-2: Minimize the impacts of threats to migratory birds such as habitat destruction by invasive species, disease, contaminants (includign oil), and fisheries interactions for the life of the plan.
    - MB-2.5: Work with partners to reduce the impact of commercial and sport fisheries outside the Monument on migratory bird populations.
- 3.2.3: Habitat Management and Conservation {HMC) Action Plan.
  - HMC-1: Within 15 years, develop and implement a strategy for restoring the health and biological diversity of the shallow reefs and shoals where anthropogenic disturbances are known to have changed the ecosystem, using best available information about pre-disturbance conditions.
    - HMC-1.1: Identify and prioritize restoration needs in shallow water reef habitats impacted by anthropogenic disturbances within 5 years.

3.3: Reducing Threats to Monument Resources.

- 3.3.1: Hawaii Marine Debris {HIMDAP) Action Plan.
  - MD-1: Remove and prevent marine debris throughout the life of the plan.
    - MD-1.1: Continue working with partners to remove marine debris in the Monument and reduce additional debris entering the Monument.
    - MD-1.2: Catalog, secure, contain, and properly remove hazardous materials that wash ashore in the NWHI.
    - MD-1.3: Develop and implement a 5-year marine debris removal and prevention strategy for the Monument.
  - MD-2: Investigate the sources, types, and accumulation rates of marine debris within 5 years.
    - MD-2.1: Work with partners on marine debris studies.
    - MD-2.2: Develop and standardize marine debris monitoring protocols for marine and terrestrial habitats.
  - MD-3: Develop outreach materials regarding marine debris within 2 years.
    - MD-3.1: Work with partners to continue to develop and implement an outreach strategy for marine debris.

- 3.3.2: Alien Species (AS) Action Plan (specifically for 'nuisance' algae, *Chondria tumulosa* at Manawai, Kuaihelani, and HolanikO).
    - AS-1: Conduct planning to prioritze by threat level, invasiveness, and practicality of eradication or control all nonnative organisms in the Monument over the life of the plan.
        - AS-1.1: Complete an Integrated Alien Species Management Plan (IASMP).
        - AS-1.2: Develop best management practices to prevent, control, and eradicate alien species.
    - AS-2: Engage in active surveillance to monitor existing infestations and to detect new infestations of alien species over the life of the plan.
        - AS-2.1: Survey distributions and populations of known alien species at regular intervals.
        - Develop and implement monitoring protocols for early detection and characterization of new infestations.
    - AS-3: Establish and enforce quarantine procedures appropriate for each site and habitat (terrestrial and aquatic) in the Monument to prevent the invasion or reinfestation of nonindigenous species over the life of the plan.
        - AS-3.1: Enforce the use of existing quarantine protocols to prevent the introduction of invasive terrestrial species to the Monument.
    - AS-8: Conduct and facilitate research designed to answer questions regarding invasive species detection, effects on ecosystems, and alien species prevention, control, and eradication over the life of the plan.
        - AS-8.1: Support and conduct research on alien species detection and the effects of invasive species on native ecosystems.
        - AS-8.2: Support and conduct research on invasive species prevention, control methods, and eradication techniques.
    - AS-9: Engage Monument users and the public in preventing the introduction and spread of alien species.
        - AS-9.2: Integrate alien species information into general Monument outreach materials.
    - AS-10: Participate in statewide and Pacific regional alien species efforts.
        - AS-10.1: Build relationships with other resource managers and invasive species experts in the State, nation, and other countries based on shared challenges concerning invasive species.
- 3.3.4: Emergency Response and Natural Resource Damage Assessment (ERDA) Action Plan.
    - ERDA-1: Create a Monument Emergency Response and Assessment Team within 1 year.

- ERDA-1.4: Participate in damage assessment programs and training throughout the life of the plan.

3.5: Coordinating Conservation and Management Activities.

- 3.5.1: Agency Coordination (AC) Action Plan.
  - AC-2: Establish and support cooperative management agreements with agency partners.
    - AC-2.2: Establish agreements for coordinated management and conduct cooperative management operations.
    - AC-2.3: Develop interagency agreements, grants, and memoranda of agreement as needed to carry our specific program priorities.
  - AC-3: Promote international, national, and local agency collaborations to increase capacity building and foster networks that will improve management effectiveness.
    - AC-3.2: Network with other marine protected areas in the Pacific.
- 3.5.2: Constituency Building and Outreach Action Plan.
  - CB0-1: Develop and implement an integrated communications strategy, based on assessment of ongoing activities and future needs, to coordinate outreach and engage Monument constituencies within 5 years.
    - CB0-1.1: Develop an integrated communications strategy based on an assessment of ongoing activities and future needs.
    - CB0-1.2: Continue to refine and implement the Monument Media Communications Protocol to engage news media in informing the public about the Monument's resources and activities.
    - CB0-1.4: Incorporate new perspectives for understanding the value of NWHI ecosystems, including socioeconomic studies, to increase ocean ecosystems literacy and conservation in the Monument within 5 years.
    - CB0-1.5: Research and implement new technologies and tools to increase public understanding of the NWHI ecosystems within 5 years.
  - CB0-2: Continue to develop and disseminate materials and improve and update tools that help inform Monument constituencies about the Monument over the life of the plan.
    - CB0-2.2: Continue to develop and update printed materials to aid Monument constituencies in understanding key aspects of the Monument.
    - CB0-2.3: Support other entities' efforts to broaden knowledge of and appreciation for Monument resources and management priorities.
  - CB0-3: Continue initiatives that allow Monument constituencies to be more involved in the Monument and enhance opportunities for long-term engagement over the life of the plan.

- CBO-3.1: Continue to seek out and participate in events that reach a broader audience and provide constituents with knowledge of the Monument.
- CBO-3.3: Continue to seek out and support partnership opportunities that focus on Oceania-related issues.
- CBO-3.6: Continue to support the Native Hawaiian Cultural Working Group through the Office of Hawaiian Affairs.
- CBO-3.8: Continue to convene the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve Advisory Council (RAC) through NOAA's Office of National Marine Sanctuaries until the Monument Alliance is established.

- 3.5.3: Native Hawaiian Community Involvement {NHCI) Action Plan.
  - NHCl-2: Develop and annually maintain partnerships with Native Hawaiian organizations and institutions.
    - NHCl-2.1: Continue to expand and explore opportunities to partner with institutions serving Native Hawaiians,
  - NHCl-3: Identify and integrate Native Hawaiian traditional knowledge and management concepts into Monument management annually for the life of the plan.
    - NHCl-3.1: Engage the Native Hawaiian community to identify how traditional knowledge will be integrated into Monument activities.
    - NHCl-3.2: Use and integrate Native Hawaiian traditional knowledge in Monument management activities.
- 3.5.4: Ocean Ecosystems Literacy (OEL) Action Plan.
  - OEL-1: Develop and implement educational programs in Hawai'i to increase ocean ecosystems literacy and promote stewardship values within 5 years.
    - OEL-1.3: Develop an ocean stewardship program for middle school and high school students within 5 years.
  - OEL-2: Develop and implement new tools to "bring the place to the people", with a focus on students, within 3 years.
    - OEL-2.1: Identify and prioritize research and development projects to increase ocean ecosystems literacy and conservation in the NWHI.
    - OEL-2.2: Use telepresence for educational and outreach activities within 5 years.

3.6: Achieving Effective Monument Operations.

- 3.6.3: Coordinated Field Operations {CFO) Action Plan.
  - CF0-2: Enhance interagency planning and coordination for field operations in support of Monument protection and management, and develop protocols and processes that will be utilized throughout the life of the plan.

- CFO-2.1: Develop interagency agreements to facilitate effective field coordination throughout the Monument.
- CF0-2.2: Develop and implement standardized field operations protocols.
- CF0-2.4: Annually coordinate field operations to efficiently deploy personnel and share resources among agency partners.

2. Hawai'i Marine Debris Action Plan (HI-MDAP) (Link HERE)

Led by NOAA Marine Debris Program (MDP)
March 2024

Goal 1: Prevention.

- Strategy 1.1: Change consumer behavior through outreach and education.
  - Action 1.1.1: Use social media as a platform for outreach.
  - 1.1.2: Conduct education and outreach to the general public, residents, military community, and visitors through, but not limited to, presentations, news events, featured speakers, and film screenings.
  - 1.1.6: Conduct education and outreach at schools and universities.
  - 1.1.6: Provide education on alternative products, make them accessible, and promote their use.
  - 1.1.8: Work with Hawai'i Marine Debris Action Plan (HI-MDAP) researchers to support one another in sharing accurate scientific information to the local community.
  - 1.1.9: Educate the public on marine debris generated through the commercial fishing industry, encourage increased understanding of where seafood comes from and how to support local fishers.

Goal 2: Ocean-based Marine Debris.

- 2.1: Conduct education and outreach to ocean users on proper and legal waste management at sea.
  - 2.1.5: Educate and promote consumer understanding of the marine debris costs associated with certain fisheries and seafood choices.
- 2.2: Identify funding and provide low-cost and convenient disposal options for fishing gear and solid waste.
  - 2.2.6: Partner in the Hawai'i Nets-to-Energy program.
- 2.3: Identify fishing materials and practices designed to reduce marine debris.
  - 2.3.1: Gather and share best management practices for coastline fishing gear and methods.
  - 2.3.2: Learn more about smart fish aggregating devices (FAD).

- 2.4: Create public-private partnerships to develop industry standards for reducing marine debris.
    - Engage with fisheries and gear manufacturers that are determined to be the source of derelict fishing gear washing into Hawai'i.
- 2.7: Effectively respond to abandoned and derelict vessels.
    - 2.7.2: Enhance interagency coordination for addressing abandoned and derelict vessels and maintain an abandoned and derelict vessel inventory for remote or difficult to access coastlines.

Goal 3: Removal.

- 3.1: Utilize effective methods to locate marine debris accumulation.
    - 3.1.1: Continue to support the advancement of at-sea detection for marine debris through remote sensing.
    - 3.1.2: Continue monitoring efforts in the Papahanaumokuakea Marine National Monument to identify accumulation sites.
    - 3.1.6: Conduct annual aerial shoreline surveys and ground truthing (if UAS aerial surveys are permitted).
    - 3.1.7: Tag derelict fishing gear with GPS buoys to determine their location and potential marine debris accumulations.
- 3.3: Use available information to prioritize cleanup sites.
    - 3.3.2: Continue engagement with county, state and federal marine wildlife representatives regarding their high-priority regions/seasons by island.
- 3.4: Develop capacity for marine debris removal and disposal.
    - 3.4.1: Create and update island-specific flow chart options depicting the disposal and collaboration process.
    - 3.4.3: Expand the development and capacity to repurpose and recycle salvaged marine debris into infrastructure, materials, and products across all islands.
    - 3.4.8: Create a shared understanding within and outside of the Hawai'i Marine Debris Action Plan community, on what happens to debris after disposal.
- 3.5: Increase communication and collaboration to efficiently remove marine debris.
    - 3.5.4: Provide financial and logistical support for large-scale marine debris removal in the Papahanaumokuakea Marine National Monument.
    - 3.5.6: Develop and maintain a network of nongovernmental organizations and other partner on-water resources that can perform regular near-shore debris mass surveys, removal training, and removal operations, and coordinate disposal of debris found with shore-based cleanup partners.

Goal 4: Research

- 4.1: Develop an understanding of marine debris physical and chemical traits, life cycle, sources, transport, fate, quantity, and accumulation rate.

- 4.1.1: Conduct shoreline and in-water surveys regularly, and share data and survey methods to determine accumulation rates.
- 4.1.4: Use spatial mapping to compare areas of high removal effort to standing debris accumulations in order to evaluate the impact of cleanups and site monitoring.
- 4.1.7: Better identify sources of hagfish traps to determine the best prevention efforts.
- 4.1.8: Create a database of derelict fishing gear types and metrics in Hawai'i in order to try and identify the fishery or manufacturer sources.
- 4.1.11: Identify funding to continue sourcing derelict fishing gear marine debris and scaling up a centralized detection, removal, research, and repurposing program.

- 4.2: Develop or identify standardized methods or best management practices for applicable aspects of research to ensure data can be meaningfully analyzed.
  - 4.2.5: Identify standardized shoreline and in-water monitoring protocols throughout Hawai'i.
  - 4.2.8: Develop a method to identify gear types from derelict fishing gear.
- 4.3: Enhance and advance research on the ecological impacts of marine debris.
  - 4.3.1: Research the interaction of invasive species with marine debris, including species identification, impacts, transport, and fate.
  - 4.3.3: Monitor and assess information on the impacts of entanglement on wildlife.
  - 4.3.4: Monitor and assess information on the impacts of marine debris to habitats.
  - 4.3.6: Use structure-from-motion (SFM) imagery to quantify the volume of coral reef damage by derelict fishing gear strikes in Kaneohe Bay.
- 4.4: Improve research on the economic impacts of marine debris.
  - 4.4.5: Research the economic impacts of derelict fishing gear in Hawai'i.
- 4.5: Evaluate the effectiveness of mitigation, outreach, and removal efforts of marine debris.
  - 4.5.2: Investigate the effectiveness of marine debris and plastic education and outreach.
- 4.6: Support communication and collaboration of research to all stakeholders.
  - 4.6.1: Improve collaboration and data sharing amongst the local marine debris community through the publishing, compiling, and sharing of marine debris research completed in Hawai'i state and regional waters.
  - 4.6.4: Explore and share funding opportunities and develop partnerships to approach funding opportunities.
  - 4.6.5: Collaborate with international partners for marine debris research.

- 4.6.6.: Participate in international conferences, partnerships, and other avenues of information sharing to highlight the relevance of marine debris in Hawai'i.

3. Recovery Plan for the Hawaiian Monk Seal *(Monachus schauinslandi)* (Link HERE)

August 2007
Led by NOAA National Marine Fisheries Service

Recovery Goal: The goal of this revised recovery plan is to assure the long-term viability of the Hawaiian monk seal in the wild, allowing initially for reclassification to threatened status, and, ultimately, removal from the List of Endangered and Threatened Wildlife.

Significant threats that face this species: Entanglement of seals in marine debris has and continues to result in significant levels of seal mortality.

- Strategy 1: Improve the survivorship of females, particularly juveniles, in sub-populations of the NWHI. To do this requires:
    - Continuing actions to remove marine debris and reduce mortality of seals due to entanglement.

Recommended short-term actions:

- Strategy 2: Prevent entanglements of monk seals.
    - Action 2.1: Continue programs that facilitate the disentanglement of animals.
    - 2.2: Continue removing potentially hazardous debris.
        - 2.2.1: Continue focused clean-up effort on high entanglement risk zones in the water.
            - 2.2.1.1: Monitor marine debris accumulation rates and identify areas of greatest potential risk.
            - 2.2.1.2: Remove debris from beaches.
    - 2.3: Reduce the amount of debris.
        - 2.3.2: Implement education and marine debris reduction programs targeting identified sources.

4. Mai Ka Po Mai: A Native Hawaiian Guidance Document for the Management of Papahanaumokuakea Marine National Monument (Link HERE)

2021, Office of Hawaiian Affairs (added as a PMNM Co-Trustee in 2017)

Ho'oku'i: Papahanaumokuakea represents the rich Hawaiian heritage, cultural experiences, and wisdom that have cultivated healthy relationships among places and their peoples through time and space.

- Na Kuhikuhi (Strategies) Ho'oku'i-2: Ensure that policies and programs incorporate relevant cultural knowledge.
- Ho'oku'i-3: Use Hawaiian knowledge, language, values, traditions, and concepts throughout all areas of management and activities.
- Ho'oku'i-4: Manage data to support Monument and community based management.

KOkulu 1. Ho'omana: Papahanaumokuakea is a living spiritual foundation and natural environment for Hawaiian existence.

- Ho'omana 1-1: Manage the natural-cultural landscape through the practice of aloha 'aina.
- Ho'omana 1-2: Perpetuate Hawaiian cultural practices, knowledge, and values.
- Ho'omana 1-3: Enhance protections through access for Native Hawaiians.
- Ho'omana 1-4: Amplify the cultural and spiritual experience.

KOkulu 2. Ho'ike: Papahanaumokuakea is an abundant source of ancestral knowledge and a place where experts demonstrate excellence and advance knowledge systems.

- Ho'ike 2-1: Conduct research and monitoring in a manner that incorporates multiple perspectives, knowledge systems, and values.
- Ho'ike 2-2: Support, facilitate, and conduct Hawaiian methods of science and research.
- Ho'ike 2-4: Promote alignment of research initiatives of the co-managing agencies and permittees to advance Hawaiian research agenda items.

KOkulu 3. Ho'oulu: Inspire and grow thriving communities.

- Ho'oulu 3-1: Engage and collaborate with communities and leaders involved in malama 'aina work.
- Ho'oulu 3-3: Develop partnerships and collaborations with other organizations to support Papahanaumokuakea programs and initiatives.
- Ho'oulu 3-4: Develop and support initiatives that focus on next-generation capacity building for leadership succession.

KOkulu 4. Ho'olaha: Papahanaumokuakea provides cultural pathways and ancestral wisdom that extends through time and space.

- Ho'olaha 4-1: Develop educational programs and initiatives that are based on Hawaiian cultural values, concepts, and traditional resource management stewardship.
- Ho'olaha 4-2: Identify, share, and promote innovative research and other place-based activities in PMNM that can serve as models to inform resource management in the main Hawaiian Islands.
- Ho'olaha 4-4: Incorporate Hawaiian values, traditions, and histories into Monument communication strategies to better connect the public to the Monument.

5. Endangered Species Act, 1973 (Link HERE)

Implemented by NOAA Fisheries and the U.S. Fish and Wildlife Services.

- Section 4: Designates critical habitat for the conservation of the species (endangered Hawaiian monk seal and threatened green sea turtle).
- Section 4: Developing and implementing recovery plans for listed species (endangered Hawaiian monk seal and threatened green sea turtle).
- Section 10: Cooperating with non-federal partners to develop conservation plans, safe harbor agreements, and candidate conservation agreements with assurances for the long-term conservation of species.
- Section 10: Issuing permits that authorize scientific research to learn more about listed species, or activities that enhance the propagation or survival of listed species.

6. Marine Mammal Protection Act, 1972 (Link HERE)

Implemented by NOAA Fisheries, the U.S. Fish and Wildlife Services, and Marine Mammal Commission.

- NOAA Fisheries performs the following conservation and management actions:
- Develops and implements conservation plans for species designated as depleted.
- Develops and implements take reduction plans to minimize dead and seriously injured marine mammals in commercial fishing gear.

Other information or background:

The Hawaiian Archipelago, specifically the Papahanaumokuakea Marine National Monument (PMNM) is centrally situated within the world's largest ocean gyre, known as the North Pacific Gyre. This gyre comprises a system of clockwise ocean currents that gather marine debris originating from the North Pacific Ocean, including regions like East Asia, the Aleutian Islands, the North American West Coast, and the equatorial zone. The debris from these regions converge into the gyre's convergence zones, located just north of the Hawaiian Islands. Coupled with prevailing northeast tradewinds and significant north swells, the PMNM becomes a substantial repository for marine debris.

The PMNM encompasses all of the Northwestern Hawaiian Islands (NWHI), including its islands, atolls, coral reefs, shoals, and seamounts. This area holds 70% of all shallow-water coral reef habitats (<200 m) in the United States. Designated a World Heritage Site by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) in 2010, PMNM is home to more than 7,000 marine species, with 25% being endemic, found only in the Hawaiian Archipelago.

Papahanaumokuakea is deeply significant in the ancestry of Kanaka Maoli (Native Hawaiian people), representing an extension of their genealogy tracing back to the elemental energies that birthed the Pae 'aina Hawai'i (Hawaiian archipelago). Venturing into Papahanaumokuakea means reconnecting with

Hawaiian ancestral ties, transitioning from Ao {light, day; the realm of humans) to Po (dark, night; the realm of the gods). This place, frequented by k0puna (elders) for thousands of years, holds profound cultural and genealogical significance, as reflected in the Kumulipo, a Hawaiian cosmogonical genealogy chant.

In line with the Kumulipo, the chant conveys the interconnectedness of realms, underscoring that "He ali'i ka 'aina, He kauwa ke kanaka" ("The land is the chief, man is the servant"). As humans, it is our k0leana (responsibility)to malama (care for) Papahanaumokuakea, maintaining balance within the system. Our endeavors to clean marine debris uphold our cultural and genealogical connection to not only Papahanaumokuakea but to all Hawai'i.

Since 1996, the Project has conducted large-scale marine debris removals to mitigate the entanglement and ingestion threat to protected wildlife and damage to coral reefs and has successfully removed over 3 million pounds of marine debris from the PMNM. The Project has also disentangled numerous marine animals. Of the estimated 1,600 remaining Hawaiian monk seals (which face the highest documented entanglement rate of any pinniped species), approximately 75% call PMNM home, and 32% are alive today due to marine debris removal efforts, disentanglements, and rehabilitation endeavors (Harting et al., 2014). The NOAA NMFS Recovery Plan for the Hawaiian Monk Seal (2007) highlights a minimum of 2.3 serious injuries or deaths annually due to fishery-related marine debris.

Marine debris and derelict fishing gear have pervasive impacts across the Hawaiian Archipelago, affecting all inhabitants - both human and wildlife. Whether entangling marine animals (seals, turtles, whales, fish, and invertebrates) or adversely impacting corals, marine debris poses a serious threat to fragile coral ecosystems, particularly within the PMNM, known for being among the most biologically diverse and economically valuable ecosystems globally (Bryant et al., 1997). The entanglement of monk seals remains a critical concern, particularly in the absense of a formal Project led by NOAA. However, recent research shows a significant decrease in Hawaiian monk seal entanglements where large-scale marine debris removal efforts are concentrated (Baker et al., 2024). PMDP continues to fulfills its role in safeguarding the marine environment and ocean wildlife from the adverse effects of marine debris by continuing large-scale marine debris removal operations within the PMNM.

"Papahanaumokuakea's ecosystems are increasingly under pressure from threats such as marine debris, invasive species, and climate change," said Rick Spinrad, Ph.D., NOAA Administrator. "Designation of the monument's waters as a national marine sanctuary would complement the efforts of the four co-trustees to safeguard the Monument's natural, cultural, and historic values."
NOAA Considers Sanctuary off Hawaiian Islands - {November 19, 2021)
https://www.noaa.gov/ news-release/ noaa-consid ers-mari ne-sa nctuary-off-hawa iian-islands

Section A - Applicant Information

1. Applicant

Name (last, first, middle initial): Morioka, James, M.

Title: Executive Director, Papahanaumokuakea Marine Debris Project (PMDP)

Ia. Intended field Principal Investigator (See instructions for more information):

James Morioka (CV attached)
Executive Director
Papahanaumokuakea Marine Debris Project (PMDP)
[redacted]

Kevin O'Brien (CV attached)
President
Papahanaumokuakea Marine Debris Project (PMDP)
[redacted]

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

[redacted]

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

Papahanaumokuakea Marine Debris Project (PMDP) - U.S. 501(c)(3) non-profit organization.

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):

Note: 12 PMDP staff from the list below will participate in PMDP-2025-01, and 16 PMDP staff from the list below will participate in PMDP-2025-02 and PMDP-2025-03. 7 HRG staff (M/V lmua chartered vessel) will participate in PMDP-2025-02 and PMDP-2025-03.

PMDP Staff:

1. James Morioka (Executive Director) - Mission Lead PMDP-2025-02 - Lead Diver and Lead Small Boat Operator
2. Kevin O'Brien (PMDP) - Mission Lead PMDP-2025-03 - Lead Diver and Lead Small Boat Operator
3. Derek LeVault - Lead Diver and Lead Small Boat Operator
4. Andrew Sullivan-Haskins - Expedition Photographer, UAS Pilot, Lead Diver and Lead Small Boat Operator
5. Lauren Fraser - Lead Diver and Lead Small Boat Operator
6. Grant Ka'ehukai Goin (PMDP), Diver and Small Boat Operator
7. Kau'i Aguiar (PMDP), Diver and Small Boat Operator
8. Ossian Nichols (PMDP), Diver and Small Boat Operator
9. Matthias Kala'i Sim (PMDP), Diver and Small Boat Operator
10. TBD (PMDP), Diver and Small Boat Operator
11. TBD (PMDP), Diver and Small Boat Operator
12. TBD (PMDP), Diver and Small Boat Operator
13. TBD (PMDP), Diver and Small Boat Operator
14. TBD (PMDP), Diver and Small Boat Operator
15. TBD (PMDP), Diver and Small Boat Operator
16. TBD (PMDP), Diver and Small Boat Operator
17. TBD (PMDP), Diver and Small Boat Operator
18. TBD (PMDP), Diver and Small Boat Operator
19. TBD (PMDP), Diver and Small Boat Operator
20. TBD (PMDP), Diver and Small Boat Operator

M/V lmua Staff:

1. Russell Bender (Hawai'i Resource Group - HRG), Captain, M/V *lmua*
2. TBD (HRG), First Mate, M/V *lmua*
3. TBD (HRG), Second Mate, M/V *lmua*

4. **TBD (HRG),** Lead Engineer, M/V *Imua*
5. **TBD (HRG),** Deckhand, M/V */mua*
6. **TBD (HRG),** Deckhand, M/V *Imua*
7. **TBD (HRG),** Cook, M/V *Imua*

Section B: Project Information

Sa. Project location(s):	**Ocean Based**		
☐ Nihoa Island	☐ Land-based	D Shallow water	D Deep water
☐ Necker Island (Mokumanamana)	☐ Land-based	☐ Shallow water	☐Deepwater
IZI French Frigate Shoals	IZI Land-based	IZI Shallow water	D Deep water
☐ Gardner Pinnacles	☐ Land-based	D Shallow water	D Deep water
IZI Maro Reef	☐ Land-based	IZI Shallow water	☐ Deep water
IZI Laysan Island	IZI Land-based	IZI Shallow water	D Deep water
IZI Lisianski Island, Neva Shoal	IZI Land-based	IZI Shallow water	D Deep water
IZI Pearl and Hermes Atoll	IZI Land-based	IZI Shallow water	☐ Deep water
IZI Midway Atoll	IZI Land-based	IZI Shallow water	D Deep water
IZI Kure Atoll	IZI Land-based	IZI Shallow water	D Deep water
☐ Monument Expansion Area			
D 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:

- PMDP-2025-01: All PMDP staff will overnight on Sand Island at Midway Atoll for the duration of the shore-based mission.
- PMDP-2025-02: No staff will remain onshore on any island or atoll. All PMDP staff will overnight aboard the M/V Imua.
- PMDP-2025-03: No staff will remain onshore on any island or atoll. All PMDP staff will overnight aboard the M/V Imua.

Sb. Check all applicable regulated activities proposed to be conducted in the Monument:

IZI Removing, moving, taking, harvesting, possessing, injuring, disturbing, or damaging any living or nonliving Monument resource

D 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

IZI Anchoring a vessel

D Deserting a vessel aground, at anchor, or adrift

IZI Discharging or depositing any material or matter into the Monument.
IZI Touching coral, living or dead
☐ Possessing fishing gear except when stowed and not available for immediate use during passage without interruption through the Monument
IZI Attracting any living Monument resource
☐ Sustenance fishing (Federal waters only, outside of Special Preservation Areas, Ecological Reserves and Special Management Areas)
D Subsistence fishing (State waters only)
IZI 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:***

All activities described in this application are directed towards the betterment of the Papahanaumokuakea Marine National Monument and the wildlife that reside there. All of the information is then compiled to develop, implement, and assess strategies to support management and recovery plans, included but not limited to: 1) Papahanaumokuakea Marine National Monument (PMNM) Management Plan, 2) Hawai'i Marine Debris Action Plan (HI-MDAP), 3) Recovery Plan for the Hawaiian Monk Seal, 4) Mai Ka Po Mai: A Guidance Document for Papahanaumokuakea, 5) Endangered Species Act of 1973 (ESA) and the 6) Marine Mammal Protection Act of 1972 (MMPA)."

*Considering the purpose of the proposed activities, do you intend to film/ photograph federally protected species beyond the protocols provided in PMNM Best Management Practices (https://www.papahanaumokuakea.gov/permit/bestmanagement.html)? Yes ☐ No IZI

All BMPs will be strictly enforced. All multimedia (photos and videos) can be provided to the four Co-Managing agencies (NOAA, U.S. Fish and Wildlife Services (USFWS), State of Hawai'i Department of Land and Natural Resources (DLNR), Office of Hawaii Affairs (OHA)) upon return from PMNM.

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

PMDP is committed to capturing imagery (photos and videos) of protected wildlife, such as the Hawaiian monk seals, sea turtles, and sea birds, interacting with or impacted by marine debris while adhering strictly to all PMNM Best Management Practices (BMPs). In cases where protected wildlife becomes entangled in marine debris, PMDP staff will communicate directly with NOAA Pacific Islands Fisheries Science Center (PIFSC) Protected Species Division (PSD), U.S. Fish and Wildlife Services, and/or the State of Hawaii Department of Land and Natural Resources/Kure Atoll Wildlife Conservancy, to assess the threat to the animal and implement risk

mitigation strategies. If the animal is deemed to be critically entangled and endangered, PMDP staff may be given guidance and authority (with appropriate NOAA NMFS permits) to intervene to prevent potentially fatal outcomes through disentanglement.

For a list of terrestrial species protected under the Endangered Species Act visit:
http://www.fws.gov/endangered/
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:

All activities described in Section 7. Findings (below) refer to specific Best Management Practices (BMPs) or programmatic assessment/guidance documents that include, but are not limited to:

1. PMNM BMP #001- Marine Alien Species Inspection Standards for Maritime Vessels
2. PMNM BMP #004 - Best Management Practices for Boat Operations and Diving Activities
3. PMNM BMP #007 - Best Management Practices for Terrestrial Biosecurity
4. PMNM BMP #010 - Marine Wildlife Viewing Guidelines
5. PMNM BMP #020 -- Minimize the Spread of Nuisance Algae
6. NOAA PIFSC CRED Programmatic Ecological Assessment (PEA) under National Environmental Policy Act (NEPA)
7. NOAA PIFSC CRED PEA Signatures
8. NOAA PIFSC CRED Finding of No Significant Impact (FONSI)
9. Cultural-based Strategy for Marine Debris Removal Operations

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?

All activities proposed by the Papahanaumokuakea Marine Debris Project (PMDP) in this PMNM Conservation and Management permit application will be executed with stringent safeguards to protect the natural, cultural, and historic resources of the Monument as required by Presidential Proclamation 8031, and other applicable laws, agency policies, and standard operating procedures. PMDP will provide detailed field protocols and best management practices (BMP) to

all involved agencies. These practices and procedures will effectively reduce or eliminate disturbances to wildlife, flora, habitat, and cultural and historic resources.

PMDP conducts comprehensive training for the PMNM (biological, environmental, and cultural aspects), ship operations, small boat operations, and free-dive/snorkel operations prior to at-sea field operations. This training regimen mirrors the rigorous training led by James Morioka (PMDP Executive Director) and Kevin O'Brien (PMDP President) at NOAA for all field staff conducting field work in the PMNM between 2007-2021. This training encompasses marine debris removal activities as well as the safeguarding and minimizing of impacts on other natural and cultural resources. It will be supplemented by PMNM pre-access and cultural briefings for all staff. Furthermore, a PMDP staff will serve as the PMNM-approved Resource Monitor (Morioka, O'Brien, and Sullivan-Haskins have all served in the PMNM Resource Monitor role) to oversee and ensure compliance with permit conditions and BMPs.

PMDP proposes to conduct Unmanned Aerial Vehicle (UAV) surveys of coral reefs and shorelines for marine debris, using a DJI Mavic Pro 3M (Multispectral sensors). In 2024, UAV surveys helped successfully detect entangled wildlife (sea turtles) in large floating nets to disentangle and rescue. The multispectral sensors of the UAV may serve as a key component for marine debris detection in the future. Trained and certified UAV FAA part 107 pilots will operate the UAV, following all rules, regulations and relevant PMNM BMPs and protocols, specific to the deployment, retrieval, and operations of the UAV. Interactions with birds and other wildlife will be closely monitored, and UAV operations will be halted should significant interactions occur.

PMDP proposes to conduct Diver Propulsion Vehicle (DPV) surveys in shallow-water coral reef environments to survey more coral reefs, detect more marine debris, conserve more energy, and remove more debris safely. DPV trained divers will integrate DPV surveys and will follow all rules, regulations, and relevant PMNM BMPs and protocols.

Stringent biosecurity quarantine procedures (outlined under PMNM BMP 007) will be adhered to and enforced at each island where personnel land on shore or boats and divers enter the water. This includes use of biosecure, quarantined gear, which is inspected, cleaned, stored, and dedicated for each island and atoll (and even islands within atolls). Strict protocols are adhered to and enforced.

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?

The Project has been actively engaged in extensive marine debris removal operations and other conservation and management initiatives within the NWHI since 1996. NOAA and its partners have diligently crafted and refined protocols for surveying, mitigating, and removing marine debris, a critical threat to wildlife and vital habitats. While these operations carry the potential for negative impact on cultural and natural resources, NOAA conducted a Programmatic Environmental Assessment {PEA or EA) under the National Environmental Policy Act {NEPA), resulting in a Finding of No Significant Impact {FONSI) in June 2005 (valid indefinitely) for the Project. PMDP's operation strictly adheres to all existing NOAA protocols and procedures, ensuring the safe execution of the mission.

For new and particularly sensitive activities, such as addressing a nuisance algal outbreak like *Chondria tumulosa* at Kuaihelani {Midway Atoll), Manawai {Pearl and Hermes Atoll), and Holanik0 (Kure Atoll), PMDP will proactively communicate and collaborate with Monument partners, and provide clear justification for each activity. If more nuisance algae is discovered, PMDP will clearly communicate what is observed in the field and request expert guidance and suggestions for next steps.

Papahanaumokuakea epitomizes 'aina momona (fat lands, fertile or rich lands). It serves as a tangible example of how our 'aina should abundantly produces resources, holding immense cultural significance. From the perspective of Kanaka Maoli worldview, understanding these mauka to makai (mountain to sea, land to ocean) connections is vital for indigenous knowledge. The flourishing ecosystems and habitats of Papahanaumokuakea act as a living testament, aiding in comprehending the stories, history, and relationships practiced by k0puna (ancestors). It provides a living space for Kanaka Maoli to reconnect and expand upon cultural practices. The removal of marine debris becomes a crucial aid to safeguard, perpetuate, and enhance this special place, its ecosystem, and its cultural resources for future generations.

PMDP actively collaborates with the Native Hawaiian community, specifically the Papahanaumokuakea Cultural Working Group {CWG) and intends to continue this collaboration indefinitely. Specifically, PMDP has partnered to develop a culture-based strategy for the Project. This strategy aims to enhance inclusivity and collaboration with the Native Hawaiian community, facilitating access to the PMNM as demonstrated in PMDP-2024-01 in 2024, creating culture-based outreach materials, and adhering to traditional protocols and procedures while in the field.

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.

Marine debris remains and will persist as a significant threat to the PMNM without a comprehensive annual large-scale marine debris removal effort (requiring removal of >57 tons or

115,000 pounds annually). Marine debris, in general, poses substantial risks and threats to wildlife and essential habitat in Hawai'i. However, the marine debris challenges facing PMNM differ significantly from those of the Main Hawaiian Islands (MHI).

The PMNM is composed of islands and atolls with ancient origins, formed over Hawai'i's hotspot (underwater geological volcanic island formation) as early as 30 million years ago (Holanik0-Kure Atoll). These islands have moved northwest (nearly 3000 km or 1900 miles) due to the Pacific tectonic plate's movement and have sunk back into the ocean, transforming large volcanic islands into shallow atolls, shoals, and expansive reef areas.

The emergent land mass in the PMNM is about 15 square kilometers, whereas shallow reef area (between 0-30 ft depth) is estimated to be 350 square kilometers (greater than 200 times the area of land mass). In contrast, the MHI is estimated to have over 16,000 square kilometers of emergent land area but only ~320 square kilometers of shallow reef area. The MHI consists of high volcanic islands with steep reef drop-offs from shore, whereas the NWHI landscape is dominated by isolated clusters of low-lying islands, barrier reefs, and calm lagoons with expansive shallow reef formations. Consequently, the issue of in-water or underwater marine debris, particularly derelict fishing gear (DFG), has a significantly more adverse impact on the PMNM compared to the MHI (as nets become snagged on shallow corals rather than washing onto the shorelines). Research co-authored by K. O'Brien and J. Morioka demonstrated that reefs in PMNM experiencing interactions with DFG have a higher occurrence of bare (dead) substrate (Suka, et al. 2020). The abundance and concentration of wildlife compared to the relative risk and threat of marine debris in the PMNM greatly exceeds that of the MHI. Without annual efforts to remove marine debris and rescue wildlife, the sensitive habitats and animals will continue to be at great risk.

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 primary goal of all proposed activities is to safeguard PMNM and its natural, historical, and cultural assets by eradicating anthropogenic threats to coral reefs, wildlife and their crucial habitats. PMDP aspires to embody an organization that upholds the stringent standards necessary for access to the PMNM. Numerous safeguards are meticulously implemented to minimize the potential negative impacts on the PMNM's resources, encompassing biosecurity measures, specific marine debris removal criteria, and nuisance algae Best Management Practices (BMPs). The Project has, to date, made a significant positive impact on PMNM resources and we anticipate this impact will persist in the future.

PMDP firmly believes that fostering a sense of community vested in a positive outcome for Papahanaumokuakea is the most effective model for stewardship of protected resources. Given

the incredibly diverse community here in Hawai'i, nurturing an understanding and affection for PMNM can establish genuine and enduring support for these activities. The outreach and education aspect of the proposed marine debris removal activities cannot be understated. Since the general public in unable to visit PMNM due to its protected status, the oral, written, and visual narratives brought back to our community from PMNM hold significant importance in building and nurturing a stewardship community. Additionally, we aspire to facilitate Native Hawaiian access to PMNM, offering opportunities for Native Hawaiians to participate as members of the marine debris field team. This approach is pivotal in forging a novel model that integrates Western science-based projects, indigenous ways of knowing, and conservation efforts.

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

The Project, formerly led by NOAA in collaboration with other agency partners, commenced in 1996. Its initial objective was to conduct large-scale operations aimed at eliminating the accumulated marine debris on shallow coral reef environments. This was achieved through multi-month, multi-vessel large-scale cleanup operations annually between 1999-2004. By 2005, NOAA determined the backlog of accumulated marine debris had been successfully cleared and transitioned to a "maintenance mode" approach in 2006 with the goal of removing 52 metric tons (57 tons or 115,000 pounds) of marine debris annually (Dameron et al., 2007). However, between 2006-2019, due to diminishing funding and resources available for annual removal missions, the removal of marine debris fell behind the accumulation rate, resulting in an estimated backlog of 1 million pounds of debris in the PMNM in 2020.

PMDP took the initiative in 2022 to address the legacy, backlogged marine debris, while also keeping pace with the annual accumulation of 115,000 pounds (57 tons) of new marine debris. PMDP anticipates a continued trend of removing more than 115,000 pounds of marine debris from PMNM each year through the end of 2026. It is PMDP's goal to eliminate the backlog of marine debris and then focus efforts towards shoreline marine debris cleanups and regular coral reef maintenance cleanups.

A typical 30-day mission to the PMNM can yield approximately 20-26 operational days, subject to weather conditions, scheduling, and project scope. With a team of 16 PMDP staff (comprising 4 boat teams of 4 divers), each operational day can effectively remove an estimated 6,500 pounds of marine debris. Therefore, aligning all the elements optimally, each PMDP 30-day mission can potentially remove 130,000-170,000 pounds of marine debris. With the goal of conducting two to three large-scale cleanups and removing 200,000-300,000 pounds of debris annually, PMDP hopes to remove the historical backlog by the end of 2026 and transition into "maintenance mode" in 2027. PMDP is also currently researching and developing innovative

tools and technologies to detect, cut, and lift large marine debris, which may allow for a quicker timeline and transition.

The above description of accumulation and backlog specifically refers to in-water Derelict Fishing Gear (DFG). Shoreline DFG and plastics are not encompassed in these estimates, presenting another significant challenge in terms of time and resources required for their effective management. Thus, unlike many other proposed projects within PMNM, the effectiveness of our proposed approach directly corresponds to the project's duration.

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

PMDP is well-equipped to continue leading this project safely and efficiently, benefiting from the expertise of individuals overseeing both management and field operations. PMDP has led these marine debris expeditions exclusively since 2022 and has since removed nearly three-quarters of a million pounds from the PMNM over seven independently led and managed cleanups (202,950 pounds in 2022, 212,160 pounds in 2023, and 330,250 pounds in 2024).

Prior to 2022, James Morioka, PMDP Executive Director, led and managed the NOAA Marine Debris Project in the PMNM from 2015 to 2021, and Kevin O'Brien, PMDP President, spearheaded field operations for the Project from 2013 to 2018.

PMDP has demonstrated a strong commitment to safety, successful project outcomes, meticulous attention to detail, and extensive knowledge of marine debris removal operations. PMDP continues to support the development of protocols and best practices for safeguarding PMNM as well as improving small boat and dive operations. PMDP strives to contribute to research and data regarding nuisance algae, *Chondria tumulosa.*

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.

PMDP was established in 2019 with the explicit purpose of relieving the Government and the PMNM Co-Trustees from the sole responsibility of funding and conducting marine debris removal efforts in the Monument. As governmental resources dwindled over the last 15 years, it became necessary to devise an additional mechanism to broaden the funding base, including sources that were not accessible to NOAA during the Project's tenure. This was aimed at creating an organization that could act as a focal point for collaborative planning and execution of these crucial missions. PMDP now possesses the essential elements - staff, facilities, and assets - to independently conduct full-scale removal missions.

In fiscal year 2024, PMDP successfully executed three field missions, with an operational budget that exceeded $3 million. The majority of funding is provided through the National Fish and Wildlife Foundation (NFWF) at the level of $2.28 million annually, which has helped *remove* nearly 750,000 pounds of marine debris *over* the last 3 years.

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.

All activities proposed by PMDP in this permit application will strictly adhere to established NOAA protocols from prior years. PMDP is committed to not only complying with but also enhancing all PMNM Best Management Practices (BMPs) and regulations that align with our activities.

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

Yes, the vessel {M/V lmua) facilitating the proposed activities are outfitted with the mobile transceiver.

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

All other approvals have been obtained for the proposed activities, and all permit applicants have maintained compliance with previous PMNM permits, primarily facilitated through NOAA channels.

8. Procedures/Methods:

The following list of activities aims to promote the **PMNM** and its resources:

Marine Debris Survey and Removal Operations:

Note: A Supplemental Biosecurity Plan for marine debris survey and removal operations is attached to this permit to supplement BMP 020 and other guidance for operations around nuisance algae.

In-Water Marine Debris Survey and Removal Operations:

Three (3) methods are used for in-water or underwater survey and removal of derelict fishing gear {DFG):

- Swim Surveys {90%): This is PMDP's primary method for surveying and detecting marine debris. Swim surveys are used within atoll lagoons around reticulated complex reefs where boat maneuvering to tow divers is ineffective.
- Diver Propulsion Vehicle {DPV) Surveys {5%): DPVs are utilized to accelerate swim surveys, covering more reef area and conserving more energy, which aids in safer, more efficient marine debris detection and removal operations.
- Tow-board Surveys {5%): This method allows for rapid visual surveys in shallow water between O and 30 feet deep, typically in large sand flats or backreef areas (within the atoll's barrier reef). This method uses the 19-ft inflatable boat to tow two freedivers (snorkelers) 100-ft behind the boat moving at 1-2 knots.

For all three methods (detailed above), divers conduct visual in-water surveys for marine debris until a net is visually located entangled on the reef. Once located, data regarding the net location/coordinates (latitude, longitude), net characteristic (fishery and material type, size, depth, buoyancy, foul level) and impact to the habitat and wildlife are collected. "Standard Operating Procedures for In-Water Cleanups" (included in the attached Supplemental Biosecurity Plan) is used to determine whether net removal is appropriate and won't cause additional reef damage. If removal is deemed appropriate, divers cut the DFG free from the substrate while minimizing impact to the entangled coral and surrounding reef habitat. The DFG is then manually loaded into inflatable boats for transport back to the ship. The marine debris is stored aboard the ship and transported back to Honolulu, Hawai'i for proper disposal at the end of each mission.

Shoreline Marine Debris Survey and Removal Operations:

- Shoreline Surveys: PMDP staff will conduct surveys by walking the shorelines (between water and vegetation lines on shore) of the islands and atolls within PMNM to collect and remove marine debris. The Project primarily focuses on collecting and removing entanglement and ingestion hazards to wildlife. No glass, metal, lumber, or hazardous material is removed without an appropriate risk assessment. All appropriate marine debris is collected and staged at a small boat 'pick-up point', where PMDP's 19-ft inflatable boats can approach the shorelines and safely load the marine debris to transport back to the ship. The marine debris is stored aboard the ship and transported back to Honolulu, Hawai'i for proper disposal at the end of each mission.

Aerial Marine Debris Survey Operations:

- Unmanned Aerial Vehicle (UAV) Surveys: These surveys will be conducted over coral reefs and shorelines at all islands and atolls and deployed and recovered from the inflatable boats when possible. The goal is to detect large, floating, entangling marine debris over coral reefs (which pose the greatest threat to wildlife), detect wildlife entangled and endangered in these nets, identify areas of high-density debris

accumulation, and capture imagery to help detect anomalies in the habitats that would often get overlooked (like large sand flats). Strict UAV rules, regulations, protocols (FAA Part 107 regulations) and BMPs will be followed and enforced for aerial survey operations.

Wildlife Disentanglement Operations:

The Project often encounters marine wildlife entangled in marine debris. Marine wildlife in the PMNM are protected and managed by the State and Federal governments, and are protected by laws, rules and regulations that prohibit the interaction and intervention with wildlife. When necessary, PMDP staff who are fully qualified, certified, trained and authorized to handle, restrain, and disentangle marine wildlife will communicate with State and Federal agencies to assess the situation and develop risk mitigation strategies. If human intervention is necessary to prevent potentially fatal outcomes to marine wildlife, PMDP staff will work with the appropriate offices for guidance and next steps.

- Hawaiian Monk Seal Disentanglement Operations: Hawaiian monk seals are often entangled in marine debris, necessitating intervention and disentanglement for their survival. When an entangled Hawaiian monk seal is identified, PMDP staff will promptly notify the NOAA NMFS PIFSC Protected Species Division (PSD) Hawaiian Monk Seal Research Program (HMSRP) of the situation. A full assessment of the seal's health and surrounding habitat will be conducted and relayed to the HMSRP office. James Morioka (PMDP Executive Director), Andrew Sullivan-Haskins, and Cascade Mayer are professionally trained Hawaiian monk seal handlers with extensive experience. They have all assisted in handling and disentangling numerous seals in the PMNM. NOAA NMFS authorizes PMDP staff as Co-Investigators on the Hawaiian monk seal permit #22677, to lead the handling, restraining, and disentanglement of endangered seals using established protocols, procedures, equipment and supplies, including manual restraint, hoop-net restraint, or stretcher-net restraint methods.
- Marine Turtle Disentanglement Operations: Marine turtles are frequently entangled in marine debris, particularly in shallow water coral reef environments. When a turtle is identified as entangled, the team will assess the turtle and its surrounding environment. If permitted, and the disentangling scenario does not cause further risk to the staff and Project, the team will handle the rescue of turtle, ensuring the turtle's head remains above water for effective breathing, and proceed with the disentanglement and release process.

Marine Debris Transport and Disposal:

Marine debris collected from within the Papahanaumokuakea Marine National Monument will be managed as follows (for more details, please refer to the Supplemental Biosecurity Plan):

All marine debris will be contained in PMDP's specialized marine debris storage bins or secured in super sacks.

1. **Storage Bins:** When derelict fishing nets are contained in **PMDP's marine debris storage bins,** they will be cut to appropriate sizes (3-ft by 3-ft by 3-ft) in the field. These nets will remain securely contained in the bins until they arrive in Honolulu. Upon arrival, the marine debris storage bins will be craned off the ship whole and transported directly to:
    a. **H-Power/Covanta Energy** for direct incineration through Hawaii's "Waste to Energy" initiative, or
    b. **Plastic Research Recycling Facility (PRRF) Center for Marine Debris Research (CMDR)** for recycling through HPU's "Nets to Roads" initiative.
2. **Supersacks:** Marine debris not stored in PMDP's marine debris storage bins, will be stored in **supersacks** on the ship's deck until they reach Honolulu. Upon arrival in Honolulu, this debris will be craned off the ship and placed in roll-off containers provided by Radius Recycling (previously known as Schnitzer Steel Corp.). These containers will be transported to H-Power/Covanta for incineration and disposal.

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 **(Not** Applicable)

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?
N/A

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

• General site/location for collections:

• Is it an open or closed system? D Open D 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?

N/A

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

N/A

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

N/A

13. List all Hazardous Materials you propose to take to and use within the Monument:

A complete list of hazardous materials will be included in the supplemental material, but in general, is limited to:

- Liquid bleach
- Concentrated powdered or puck bleach
- Gasoline (non-ethanol 89 grade gasoline)
- Hypalon glue (for inflatable boats)
- Motor oil (for small boats)
- Other applicable small boat support chemicals and supplies (i.e., grease, adhesives, etc.)

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

N/A

15. Provide a time line for sample analysis, data analysis, write-up and publication of information:

N/A

16. List all Applicant's publications directly related to the proposed project:

Four decades of Hawaiian monk seal entanglement data reveal the benefits of plastic debris removal Baker, J.D., Johanos, T.C., Ronco, H., Becker, B.L., **Morioka, J., O'Brien, K.,** Donohue, M.J. (September 2024) Science: https://www.science.org/doi/10.1126/science.ado2834

Large floating abandoned, lost or discarded fishing gear (ALDFG) is frequent marine pollution in the Hawaiian Islands and Palmyra Atoll.
Royer, S., Corniuk, R., Mcwhirter, A., Lynch IV, H.W., Pollack, K., **O'Brien, K.,** Escalle, L., Stevens, K.A., Moreno, G., Lynch, J.M.
(November 2023) Marine Pollution Bulletin: https://doi.org/10.1016/j.marpolbul.2023.115585

Coral cover remains suppressed three years after derelict net removal in a remote shallow water coral reef ecosystem.
Halperin, A., Lichowski, F., **Morioka, J., O'Brien, K.,** Suka, R., Huntington, B.
(February 2023) Marine Pollution Bulletin: https://doi.org/10.1016/j.marpolbul.2023.114703

Movement and retention of derelict fishing nets in Northwestern Hawaiian Island reefs.
McCoy, K., Huntington, B., Kindinger, T., **Morioka, J., O'Brien, K.**
(January 2022) Marine Pollution Bulletin: https://doi.org/10.1016/j.marpolbul.2021.113261
https://www.sciencedirect.com/science/artic1e/pii/S0025326X21012959

Successful application of a novel technique to quantify negative impacts of derelict fishing nets on Northwestern Hawaiian Island reefs.
Suka, R., Huntington, B., **Morioka, J., O'Brien, K.,** Acoba, T.
(August 2020) Marine Pollution Bulletin: https://doi.org/10.1016/j.marpolbul.2020.111312
https://www.sciencedirect.com/science/article/abs/pii/S0025326X20304306

Building evidence around ghost gear: Global trends and analysis for sustainable solutions at scale.
Richardson, K., Asmutis-Silvia, R., Drinkwin, J., Gilardi, K.V.K., Giskes, I., Jones, G., **O'Brien, K.,** Pragnell-Raasch, H., Ludwig, L., Antonelis, K., Barco, S., Henry, A., Knowlton, A., Landry, S., Mattila, D., MacDonald, K., Moore, M., Morgan, J., Robbins, J., van der Hoop., J., Hogan, E.
(January 2019) Marine Pollution Bulletin: https://doi.org/10.1016/j.marpolbul.2018.11.031

The following publications are referenced throughout the document and are related to the proposed project:

Four decades of Hawaiian monk seal entanglement data reveal the benefits of plastic debris removal
Baker, J.D., Johanos, T.C., Ronco, **H.,** Becker, B.L., **Morioka, J., O'Brien, K.,** Donohue, M.J.
(September 2024) Science: https://www.science.org/doi/10.1126/science.ado2834

Marine debris accumulation in the Northwestern Hawaiian Islands: An examination of rates and processes.
Dameron, O.J., Parke, M., Albins, M., Brainard, R.
(May 2007) Marine Pollution Bulletin: https://doi.org/10.1016/j.marpolbul.2006.11.019

Benefits derived from opportunistic survival-enhancing interactions for the Hawaiian monk seal: the silver BB paradigm.
(September 2014) Endangered Species Research: https://doi.org/10.3354/esr00612

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.

1/17/2025

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?

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

FOR SPECIAL OCEAN USE ACTIVITIES <u>OUTSIDE</u> OF MIDWAY ATOLL SPECIAL MANAGEMENT AREA, ANSWER THE ADDITIONAL THREE FINDINGS BELOW:

k. Explain how your activity will directly benefit the conservation and management of the Monument.

The Papahānaumokuākea Marine Debris Project (PMDP) is exploring alternative fundraising methods to sustain large-scale marine debris cleanup efforts within the Papahānaumokuākea Marine National Monument. The ideas proposed under this Special Ocean Use permit application aim to generate revenue that will be fully dedicated to supporting PMDP's conservation and management programs. These initiatives include:

- Selling imagery (photographs) captured by PMDP staff within the Papahānaumokuākea Marine National Monument**.**
- Using these images to create a "coffee table"
- for public sale as a gift for major donors.

l. Explain how the purpose of your activity is for research or education related to the resources or qualities of the Monument.

One of PMDP's key goals is to connect people to Papahānaumokuākea. By selling photography and creating a book, PMDP can raise awareness about the significance of this culturally and naturally vital place, highlighting the importance of its protection and preservation.

m. Does the activity involve the use of a commercial passenger vessel (defined as a vessel that carries individuals who have paid for such carriage)?

No.

FOR SPECIAL OCEAN USE ACTIVITIES <u>WITHIN</u> MIDWAY ATOLL SPECIAL MANAGEMENT AREA, ANSWER THE ADDITIONAL TWO FINDINGS BELOW:

n. Explain how your activity will further the conservation and management of the Monument.

The images collected at Midway Atoll (Kuaihelani), as outlined above are proposed. All revenue generated from the sale of images and books will support PMDP in their large-scale marine debris cleanup efforts exclusively within the Papahānaumokuākea Marine National Monument.

o. How is your activity compatible with the purposes for which the Midway Atoll National Wildlife Refuge was designated?

PMDP captures imagery and shares it with all Co-Trustees of the Papahānaumokuākea Marine National Monument. This activity is to raise awareness about the significance of Midway Atoll National Wildlife Refuge.

NOTE: If this is a first time Special Ocean Use activity, it will be subject to a pilot project and will be restricted in duration. Special Ocean Use activities proposed <u>outside</u> the Midway Atoll Special Management Area will require public notice of the application and an opportunity to provide comments is given at least 30 days prior to issuing the permit.

9. Provide proof of general liability insurance, or indicate that you will be posting an equivalent bond against claims arising out of activities conducted under the permit:

N/A.

Papahānaumokuākea Marine Debris Project
905 Kalanianaole Hwy. #5017
Kailua, Hawai'i 96734

www.pmdphawaii.org
@pmdphawaii

Supplemental Biosecurity Plan

PMDP Marine Debris Survey and Removal Operations

This Supplemental Biosecurity Plan accompanies PMDP's Conservation and Management Permit Application for marine debris cleanup activities. It outlines the three proposed cleanup missions scheduled for 2025.

1. PMDP-2025-01 – (2025 Mission #1)

- Tentative Dates: April 14 (Monday) – May 1, 2025 (Thursday) – 18 days
- Island/Atoll: Kuaihelani
- Proposed Operations: In-Water (Reef) and Shoreline Cleanups

2. PMDP-2025-02 – (2025 Mission #2)

- Tentative Dates: August 14 (Thursday) – September 12, 2025 (Friday) – 30 days
- Tentative Islands/Atolls: Lalo, Kamokuokamohoali'i, Kamole, Kapou, Kuaihelani
- Proposed Operations: In-Water (Reef) and Shoreline Cleanups; Debris Pick-Up Only at Kuaihelani

3. PMDP-2025-03 – (2025 Mission #3)

- Tentative Dates: September 22 (Monday) – October 21, 2025 (Tuesday) – 30 days
- Tentative Islands/Atolls: Manawai, Kuaihelani, Hōlanikū
- Proposed Operations: In-Water (Reef) and Shoreline Cleanups

Table of Contents

Standard Operating Procedures for In-Water Marine Cleanups

The decision to remove marine debris (primarily derelict fishing gear/nets) is based upon its disposition, depth, and potential for additional damage and entanglement. These standard protocols do not include the additional biosecurity measures in place for operations in Nuisance Algae Mitigation Zones (NAMZ).

1. Surveys to Locate Nets:
    a. PMDP divers conduct swim surveys, towed-diver surveys, or use diver propulsion vehicles (DPVs) to locate nets in coral reef environments.
2. Free-floating Nets:
    a. If a net is found freely floating, it should be removed immediately.
3. Nets on or Attached to Substrate:
    a. Depth Assessment:
        i. If the net is deeper than 30 feet:
            1. Do not remove it, as this depth exceeds established PMDP dive protocols for marine debris removal operations.
            2. Follow the "left net" protocols: obtain coordinates, complete the data sheet, and estimate its depth.
        ii. If the net is shallower than 30 feet:
            1. Survey to determine if the net is significantly attached (affixed/cemented/calcified) to the reef substrate.
4. Stability Assessment:
    a. Unstable Nets:
        i. If the net is likely to move (e.g. nets in sand, in surf zones, in high surge areas, or loop/snared/tangled on reef substrate but not significantly affixed:
            1. Remove the net to prevent additional reef damage if it breaks free.
    b. Stable Nets:
        i. If the net is unlikely to move and removing it would cause significant collateral damage to the live coral, reef substrate, or other benthos:
            1. Survey to determine its entanglement hazard to wildlife.
5. Entanglement Hazard Assessment:
    a. If the net poses an entanglement hazard to wildlife:
        i. Remove the entanglement hazard and leave the stable portions affixed to the reef.
    b. If the net does not pose an entanglement hazard:
        i. Do not remove it.

Standard Operating Procedures for Identifying and Responding to Nuisance Algae

Nuisance Algae Mitigation Zones (NAMZ): Manawai, Kuaihelani, Hōlanikū

Non-Nuisance Algae Mitigation Zones (Non-NAMZ): Lalo, Kamokuokamohoali'i, Kamole, Kapou

1. Identification Outside Known NAMZ Locations:
    a. If nuisance, pervasive, or invasive algae such as *Chondria tumulosa* and/or *Acanthophora spicifera* are identified at an island/atoll outside of known NAMZ locations:
2. Notification:
    a. PMDP will immediately notify the Permit Coordinator (Phillip Howard), who will notify the Monument Management Board and Resource Protection Working Group.
3. Cessation of Operations:
    a. PMDP will halt all operations immediately until the algae is confirmed or ruled out as *Chondria tumulosa, Acanthophora spicifera,* or other nuisance, pervasive, or invasive species.
4. Confirmation and NAMZ Designation:
    a. If the algae is confirmed to be *Chondria tumulosa, Acanthophora spicifera, o*r another nuisance, pervasive, or invasive species, the location will be designated as NAMZ.
5. Mitigation Measure:
    a. PMDP will implement appropriate biosecurity protocols and best management practices (BMPs) for NAMZ marine debris removal operations as outlined in this supplemental biosecurity plan to mitigate the spread and impact of the algae.

PMDP-2025-01

2025 Mission #1

Mission Summary

- Tentative Dates: April 14 (Monday) – May 1, 2025 (Thursday) – 18 days
- Island/Atoll: Kuaihelani
- Proposed Operations: In-Water (Reef) and Shoreline Cleanups
- Logistics:
    - Gear Transport from Honolulu to Kuaihelani: February 6, 2025 (Thursday)
    - Flights from Honolulu to Kuaihelani:
        - Chartered Flight #1 – April 14, 2025 (Monday)
        - Chartered Flight #2 – April 16, 2025 (Wednesday)
    - Flight from Kuaihelani to Honolulu:
        - Chartered Flight #3 – April 29, 2025 (Tuesday)
        - Chartered Flight #4 – May 1, 2025 (Thursday)
    - Gear Transport from Kuaihelani to Honolulu: May 13, 2025 (Tuesday)

Proposed Itinerary

	Date	Day	Location (Island/Atoll)	Operations Proposed
LOAD	2/5/25	Wednesday	Honolulu	Ship Loading
1	4/14/25	Monday	Kuaihelani	Shoreline Cleanup
2	4/15/25	Tuesday	Kuaihelani	Shoreline Cleanup
3	4/16/25	Wednesday	Kuaihelani	In-Water and Shoreline Cleanup
4	4/17/25	Thursday	Kuaihelani	In-Water and Shoreline Cleanup
5	4/18/25	Friday	Kuaihelani	In-Water and Shoreline Cleanup
6	4/19/25	Saturday	Kuaihelani	In-Water and Shoreline Cleanup
7	4/20/25	Sunday	Kuaihelani	In-Water and Shoreline Cleanup
8	4/21/25	Monday	Kuaihelani	In-Water and Shoreline Cleanup
9	4/22/25	Tuesday	Kuaihelani	In-Water and Shoreline Cleanup
10	4/23/25	Wednesday	Kuaihelani	In-Water and Shoreline Cleanup
11	4/24/25	Thursday	Kuaihelani	In-Water and Shoreline Cleanup
12	4/25/25	Friday	Kuaihelani	In-Water and Shoreline Cleanup
13	4/26/25	Saturday	Kuaihelani	In-Water and Shoreline Cleanup
14	4/27/25	Sunday	Kuaihelani	In-Water and Shoreline Cleanup
15	4/28/25	Monday	Kuaihelani	In-Water and Shoreline Cleanup
16	4/29/25	Tuesday	Kuaihelani	In-Water and Shoreline Cleanup
17	4/30/25	Wednesday	Kuaihelani	Shoreline Cleanup
18	5/1/25	Thursday	Kuaihelani	Shoreline Cleanup
OFFLOAD	5/13/25	Tuesday	Honolulu	Ship Offloading

Table 1. Proposed mission itinerary and operations for PMDP-2025-01.

Standard Operating Procedures for In-Water Cleanups at Kuaihelani

1. Boat Launch and Transit:
    a. Two PMDP inflatable boats are launched from the small boat ramp within Sand Island's inner harbor.
    b. The boats transit within the atoll to the backreefs and lagoon inside the barrier reef, to survey for derelict fishing nets.
2. Net Survey Procedures:
    a. PMDP divers conduct swim surveys, towed-diver surveys, or use diver propulsion vehicles (DPVs) to locate nets in coral reef environments.
    b. When a net is located, PMDP divers:
        i. Survey the net and the surrounding area for nuisance algae (*Chondria tumulosa* and *Acanthophora spicifera*), recording its presence or absence on a datasheet.
        ii. Collect additional data on net location, characteristics, and its impact on habitat and wildlife.
3. Net Removal Assessment:
    a. Divers assess whether net removal is appropriate, using the "In-Water Marine Debris Removal Protocols".
    b. If removal is deemed appropriate:
        i. Divers carefully cut the net free from the reef.
        ii. The net is manually loaded into the inflatable boat.
4. Net Handling and Transport:
    a. Retrieved nets are secured within a helicopter sling cargo net, placed on a heavy-duty tarp inside the boat.
    b. Once the day's nets are loaded, the boats transit back to Sand Island's inner harbor.
5. Unloading and Processing:
    a. Boats position themselves adjacent to the small boat ramp for unloading.
    b. Using a telehandler, the helicopter sling cargo nets filled with derelict fishing nets are lifted out of the boat and transported to the designated tarmac area.
    c. Nets are weighed on the tarmac and emptied from the helicopter sling cargo nets to desiccate for subsequent transport and disposal.
6. Transport to Honolulu:
    a. The transport of the in-water marine debris to Honolulu is proposed for PMDP-2025-02.

Standard Operating Procedures for Shoreline Cleanups at Kuaihelani

1. Boat Launch and Transit:
    a. Two PMDP inflatable boats are launched from the small boat ramp within Sand Island's inner harbor.
    b. The boats transit within the atoll to Eastern Island, Spit Island, or Sand Island shorelines to survey for marine debris.
2. Shoreline Survey Procedures:
    a. PMDP staff collect marine debris from the shoreline, while surveying for nuisance algae (*Chondria tumulosa* and *Acanthophora spicifera*), and recording its presence and coordinates/location if/when found.
    b. Marine debris is sorted into separate piles of "nets" and "plastic" along accessible sections of the beach.
3. Debris Handling and Transport:
    a. The sorted debris is double-bagged into supersacks either onshore or directly in the boats.
    b. Each boat is loaded with 2-3 supersacks of marine debris, depending on weight and capacity.
    c. Once loaded, the boats transit back to Sand Island's inner harbor.
4. Unloading and On-Island Processing:
    a. The boats position themselves adjacent to the small boat ramp for unloading.
    b. Using a telehandler, the supersacks are lifted out of the boat and transported to the designated tarmac area.
    c. The supersacks are weighed and stored on pallets for subsequent transport and disposal.
5. Transport to Honolulu:
    a. The transport of the shoreline marine debris to Honolulu is proposed for PMDP-2025-02.

Map of Proposed Operations at Kuaihelani

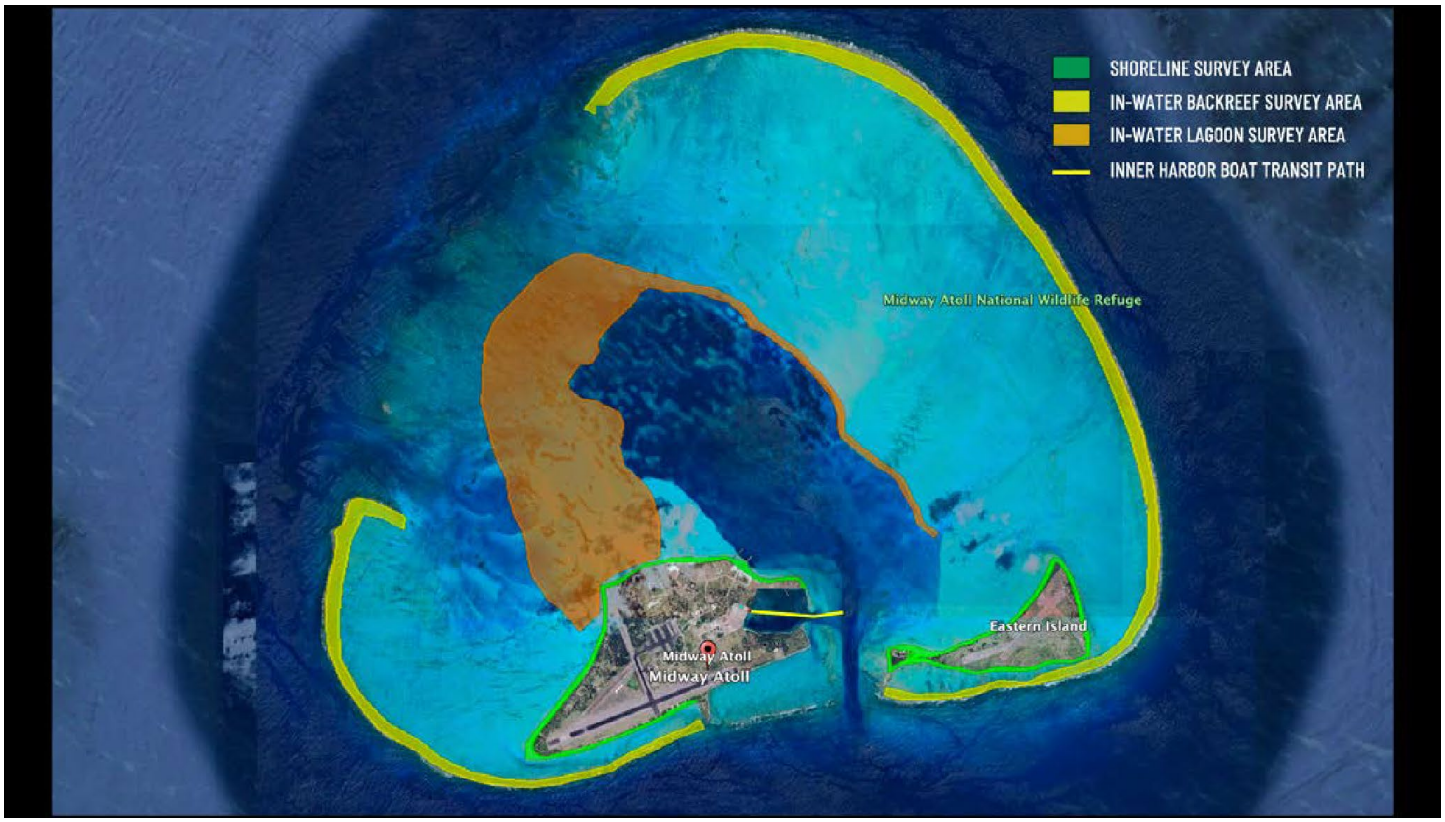

Image 1. Map of Kuaihelani (Midway Atoll) showing proposed areas for shoreline and in-water marine debris survey and removal operations.

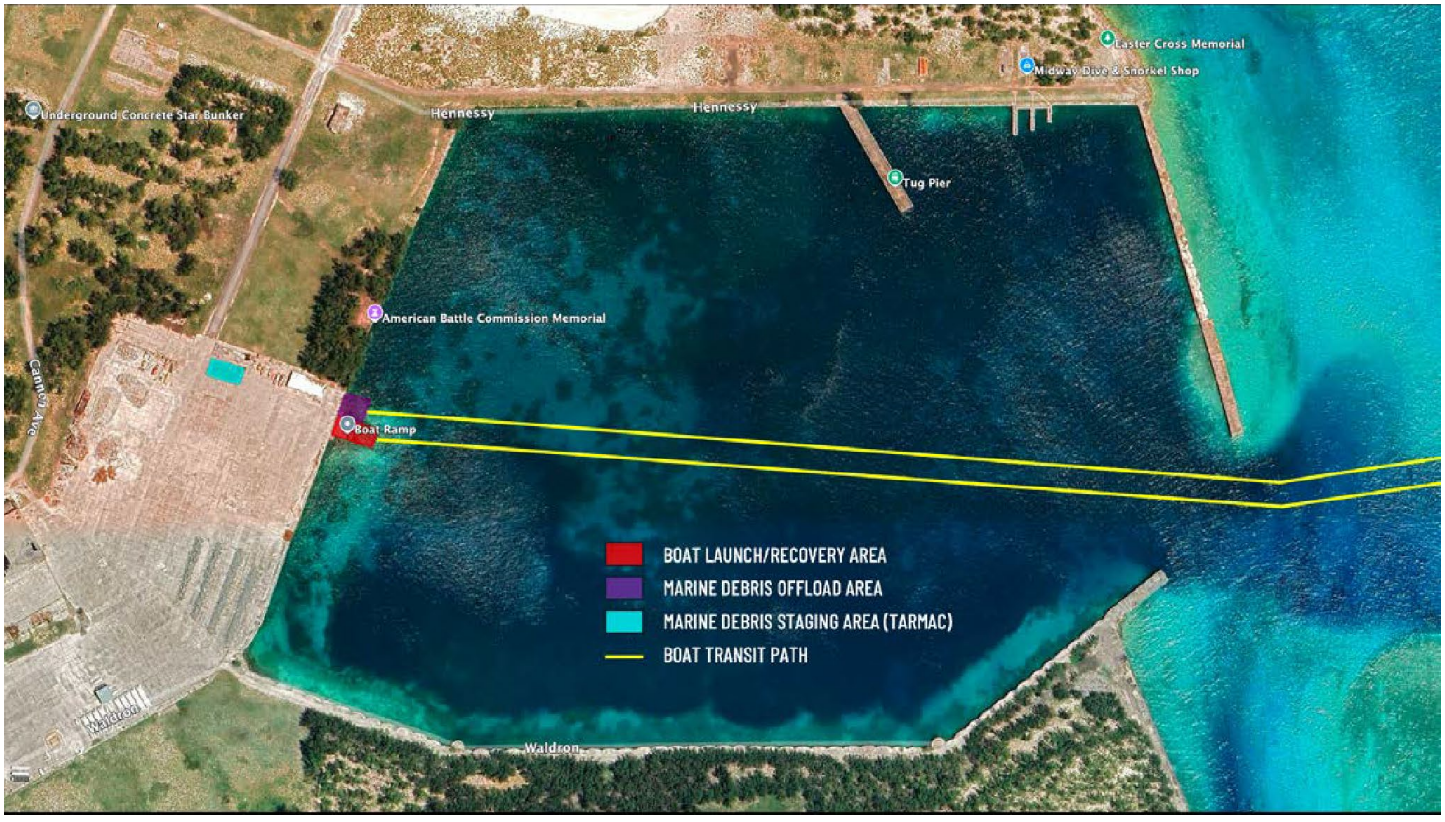

Image 2. Map of Kuaihelani (Midway Atoll) Sand Island inner harbor showing proposed areas for boat launch and recovery, marine debris offloading, and staging.

Standard Operating Procedures for Sanitizing Small Boats and Equipment at Kuaihelani

The following is to supplement all guidance and requirements outlined in BMP 020.

1. Disassembly of Small Boats:
    a. Once marine debris survey and removal operations are complete, PMDP staff will disassemble the small boats into various components: inflatable hull, floorboards, center console, and outboard engines.
2. Inspection for Nuisance Algae:
    a. Each component, along with all survey gear and field equipment, will undergo a thorough inspection for the presence of nuisance algae.
3. Cleaning and Sanitizing:
    a. Each component, along with all survey gear and field equipment, will be cleaned and sanitized using a 10% bleach solution, following strict biosecurity protocols outlined in BMP 020.
4. Drying and Packing:
    a. After sanitization, all boats and field equipment will be dried, packed away, and securely stored in PMDP's 20-ft container by May 1, 2025.
5. Additional Biosecurity Treatment:
    a. The container will then undergo biosecurity treatment, including inspection and treatment for ants, bugs, rats, and other pests to ensure no contaminants are present.
6. Shipping and Transport:
    a. When the Imua arrives at Kuaihelani on May 6, 2025, the container will be loaded onto the deck of the ship.
    b. When the Imua arrives in Honolulu on May 13, 2025, the container will be offloaded from the ship and transported to PMDP HQ in Kailua.
7. Storage and Authorization for Use:
    a. All items from the container will be unpacked and stored inside PMDP's warehouse for a 30-day holding period until June 1, 2025, at which point they will be authorized for use.

PMDP-2025-02

2025 Mission #2

Mission Summary

- Tentative Dates: August 14 (Thursday) – September 12, 2025 (Friday) – 30 days
- Tentative Islands/Atolls: Lalo, Kamokuokamohoali'i, Kamole, Kapou, Kuaihelani
- Proposed Operations: In-Water (Reef) and Shoreline Cleanups; Debris Pick-up Only at Kuaihelani
- Proposed Vessel: M/V Imua
- Logistics:
    - Gear Loading in Honolulu: August 13, 2025 (Wednesday)
    - Ship Departure from Honolulu: August 14, 2025 (Thursday)
    - Ship Arrival in Honolulu: September 12, 2025 (Friday)
    - Gear Offloading in Honolulu: September 15, 2025 (Monday)

Proposed Itinerary

	Date	Day	Location (Island/Atoll)	Operations Proposed
LOAD	8/13/25	Wednesday	Honolulu	Ship Loading
1	8/14/25	Thursday	Transit	Transit
2	8/15/25	Friday	Transit	Transit
3	8/16/25	Saturday	Lalo	In-Water Cleanup
4	8/17/25	Sunday	Lalo	In-Water Cleanup
5	8/18/25	Monday	Lalo	In-Water Cleanup
6	8/19/25	Tuesday	Transit	Transit
7	8/20/25	Wednesday	Kamokuokamohoali'i	In-Water Cleanup
8	8/21/25	Thursday	Kamokuokamohoali'i	In-Water Cleanup
9	8/22/25	Friday	Kamokuokamohoali'i	In-Water Cleanup
10	8/23/25	Saturday	Kamokuokamohoali'i	In-Water Cleanup
11	8/24/25	Sunday	Kamokuokamohoali'i	In-Water Cleanup
12	8/25/25	Monday	Kamokuokamohoali'i	In-Water Cleanup
13	8/26/25	Tuesday	Kamokuokamohoali'i	In-Water Cleanup
14	8/27/25	Wednesday	Kamole	Shoreline Cleanup
15	8/28/25	Thursday	Kamole	Shoreline Cleanup
16	8/29/25	Friday	Kamole	Shoreline Cleanup
17	8/30/25	Saturday	Kamole	Shoreline Cleanup
18	8/31/25	Sunday	Kapou	Shoreline Cleanup
19	9/1/25	Monday	Kapou	Shoreline Cleanup
20	9/2/25	Tuesday	Kapou	Shoreline Cleanup
21	9/3/25	Wednesday	Kapou	Shoreline Cleanup
22	9/4/25	Thursday	Transit	Transit
23	9/5/25	Friday	Kuaihelani	Debris Pick-up
24	9/6/25	Saturday	Kuaihelani	Debris Pick-up
25	9/7/25	Sunday	Transit	Transit
26	9/8/25	Monday	Transit	Transit
27	9/9/25	Tuesday	Transit	Transit
28	9/10/25	Wednesday	Transit	Transit
29	9/11/25	Thursday	Transit	Transit
30	9/12/25	Friday	Honolulu	Ship Offloading
OFFLOAD	9/15/25	Monday	Honolulu	Ship Offloading

Table 2. Proposed mission itinerary and operations for PMDP-2025-02.

Standard Operating Procedures for In-Water Cleanups at Lalo and Kamokuokamohoali'i

1. Boat Launch and Transit:
    a. Four PMDP inflatable boats are launched from the deck of the Imua.
    b. The boats transit to the backreefs or lagoons of the atoll to survey for derelict fishing nets.
2. Net Survey Procedures:
    a. PMDP divers conduct swim surveys, towed-diver surveys, or use diver propulsion vehicles (DPVs) to locate nets in coral reef environments.
    b. When a net is located, PMDP divers:
        i. Survey the net and the surrounding area for nuisance algae (*Chondria tumulosa* and *Acanthophora spicifera*), recording its presence or absence on a datasheet.
3. Nuisance Algae Protocol:
    a. If nuisance algae is present:
        i. The net is left in place.
        ii. All boats are notified immediately, and marine debris operations cease.
        iii. The "Standard Operating Procedures for Identifying and Responding to Nuisance Algae" is implemented.
    b. If nuisance algae is absent:
        i. Additional data is collected on net location, characteristics, and its impact on habitat and wildlife.
4. Net Removal Assessment:
    a. Divers assess whether net removal is appropriate, using the "In-Water Marine Debris Removal Protocols".
    b. If removal is deemed appropriate:
        i. Divers carefully cut the net free from the reef.
        ii. The net is manually loaded into the inflatable boat.
5. Net Handling and Transport:
    a. Retrieved nets are secured within a helicopter sling cargo net, placed on a heavy-duty tarp inside the boat.
    b. Once the day's nets are loaded, the boats return to the Imua.
6. Unloading and Shipboard Processing:
    a. Boats are tied up alongside the Imua for unloading.
    b. Using the ship's crane, the helicopter sling cargo nets filled with derelict fishing nets are lifted out of the boat onto the ship's deck.
    c. The nets are weighed on the deck and then emptied into blue marine debris storage bins for transport.
7. Transport to Honolulu:
    a. Once marine debris bins are fully loaded and operations are completed, the Imua transits back to Honolulu with the collected debris.
    b. Upon arrival at Honolulu Harbor:
        i. The storage bins are craned off the ship and placed onto the dock.
        ii. Each storage bin is trucked directly to the Center for Marine Debris Research's (CMDR) Plastic Research Recycling Facility for further processing.

Map of Proposed Operations at Lalo and Kamokuokamohoali'i

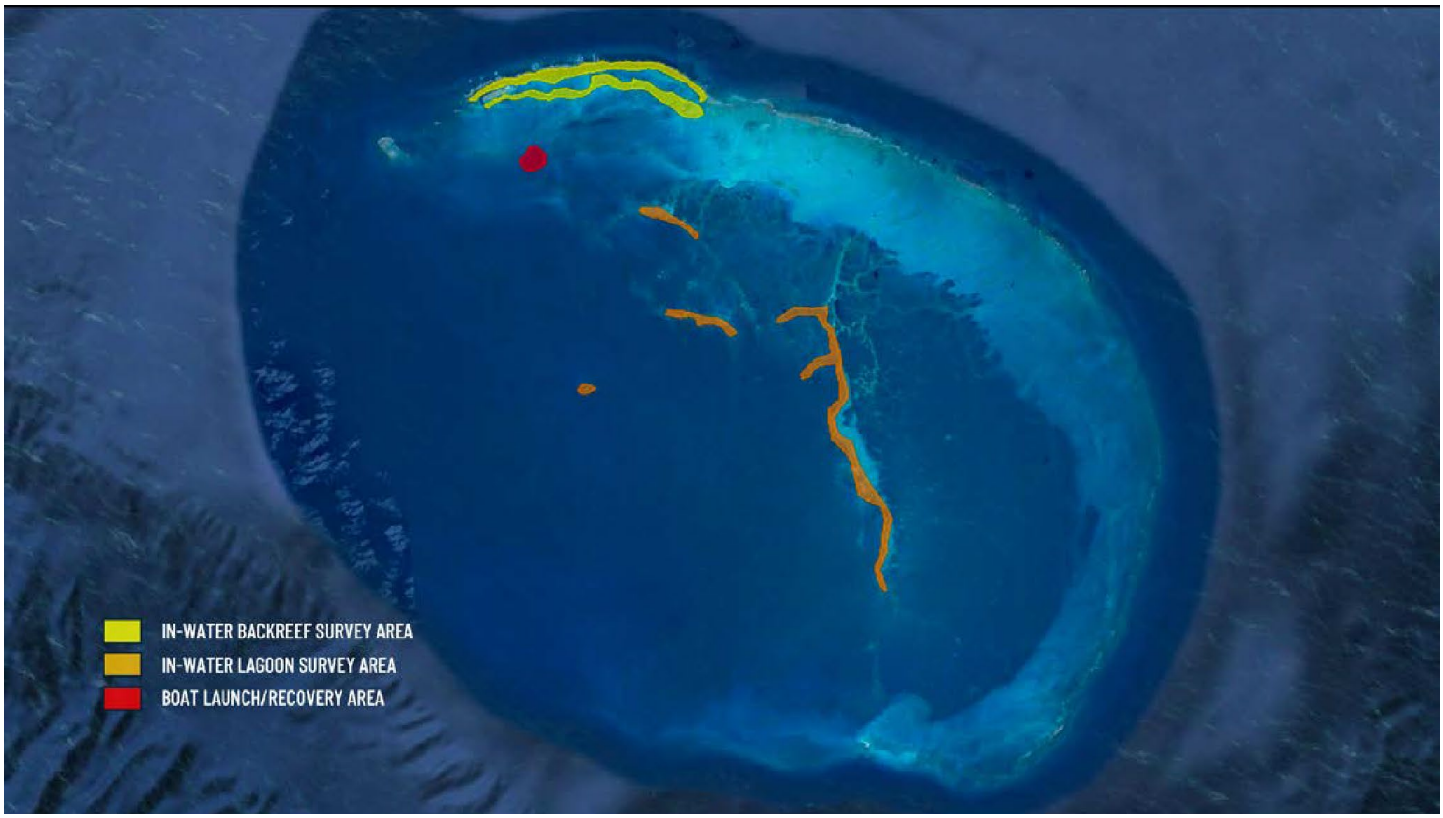

Image 3. Map of Lalo (French Frigate Shoals) showing proposed areas for boat launch, recovery, and in-water marine debris survey and removal operations.

Image 4. Map of Kamokuokamohoali'i (Maro Reef) showing proposed areas for boat launch, recovery, and in-water marine debris survey and removal operations.

Standard Operating Procedures for Shoreline Cleanups at Kamole and Kapou

1. Boat Launch and Transit:
    a. Four PMDP inflatable boats are launched from the deck of the Imua.
    b. The boats transit to the shorelines of the islands to survey for marine debris.
2. Shoreline Survey Procedures:
    a. PMDP staff collect marine debris from the shoreline, while surveying for nuisance algae (*Chondria tumulosa* and *Acanthophora spicifera*), and recording its presence and location when found.
3. Nuisance Algae Protocol:
    a. If nuisance algae is present:
        i. The marine debris is left in place.
        ii. All boats are notified immediately, and marine debris operations cease.
        iii. The "Standard Operating Procedures for Identifying and Responding to Nuisance Algae" is implemented.
    b. If nuisance algae is absent:
        i. Marine debris is sorted into separate piles of "nets" and "plastic" along accessible sections of the beach.
4. Debris Handling and Transport:
    a. The sorted debris is loaded into supersacks either onshore or directly in the boats.
    b. Each boat is loaded with 2-3 supersacks of marine debris, depending on weight and capacity.
    c. Once loaded, the boats transit back to the Imua.
5. Unloading and Shipboard Processing:
    a. The boats are tied up alongside the Imua for unloading.
    b. Using the ship's crane, the supersacks are lifted out of the boat onto the ship's deck.
    c. The supersacks are weighed on the deck and then secured for transport.
6. Transport to Honolulu:
    a. Once operations are completed, the Imua transits back to Honolulu with the collected debris.
    b. Upon arrival at Honolulu Harbor:
        i. Supersacks are craned from the deck into roll-off containers on the dock.
        ii. Each roll-off container, capable of holding 16-20 supersacks, is trucked directly to the Center for Marine Debris Research's (CMDR) Plastic Research Recycling Facility for further processing.

Map of Proposed Operations at Kamole and Kapou

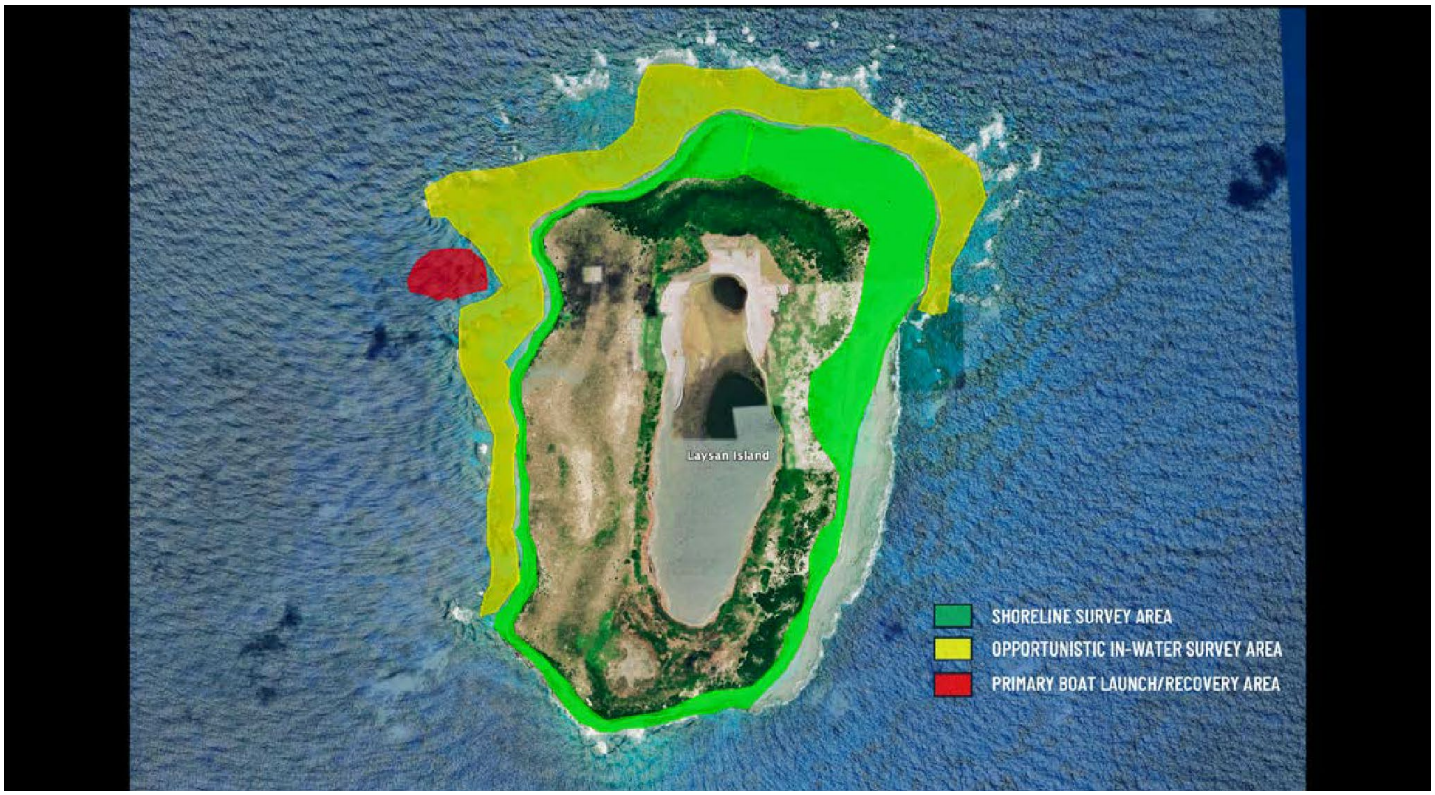

Image 5. Map of Kamole (Laysan) showing proposed areas for boat launch, recovery, and shoreline marine debris survey and removal operations. In-water marine debris survey and removal operations are unlikely.

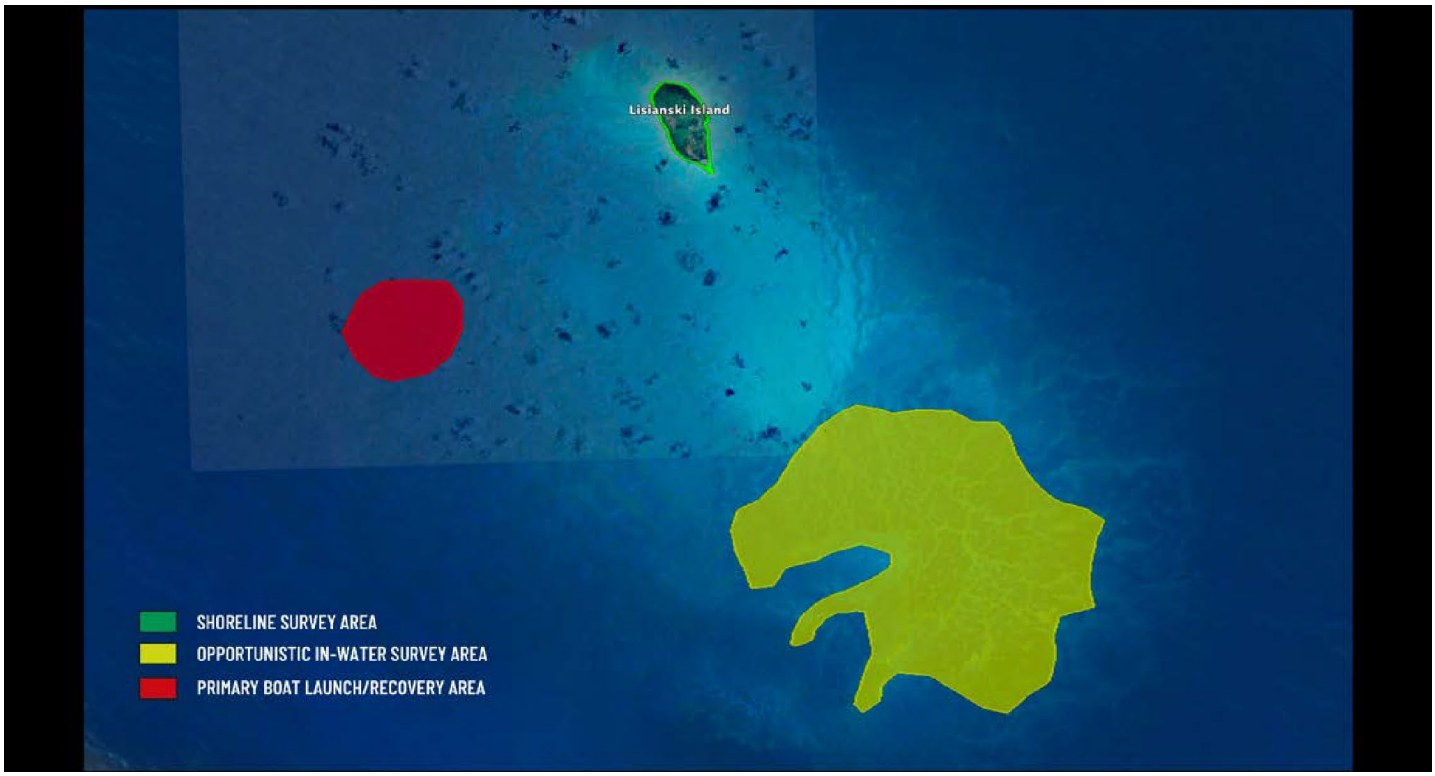

Image 6. Map of Kapou (Lisianski) showing proposed areas for boat launch, recovery, and shoreline marine debris survey and removal operations. In-water marine debris survey and removal operations are unlikely.

Proposed Marine Debris Pick-up at Kuaihelani

1. Debris Handling and Transport:
    a. Five months after PMDP-2025-01, PMDP will return to Kuaihelani aboard the Imua to load the previously collected marine debris.
        i. Nets from the in-water cleanups will be double-bagged in supersacks at the designated tarmac area, and marked as "NAMZ" supersacks (to differentiate them from debris from Kamole and Kapou).
        ii. The double-bagged supersacks from shoreline cleanups will also be marked as "NAMZ" supersacks.
        iii. Kuaihelani staff (Chugach and USFWS) will assist in the transport of all NAMZ supersacks from the designated tarmac area to the Sand Island dock using appropriate vehicles and machinery.
2. Ship Loading:
    a. NAMZ supersacks will be craned from the dock onto a designated area of the Imua using the ship's crane.
    b. NAMZ supersacks will be stored separately on pallets and secured to the deck of the ship to ensure safe transport.
3. Transport to Honolulu:
    a. Once all debris has been loaded, the Imua will transit back to Honolulu.
    b. Upon arrival at Honolulu Harbor:
        i. Supersacks will be craned from the deck into designated NAMZ roll-off containers on the dock.
        ii. Each NAMZ roll-off container, capable of holding 16-20 supersacks, will be trucked directly to H-Power/Covanta for incineration.

Image 7. Map of Kuaihelani Sand Island inner harbor showing proposed marine debris handling and transport operations.

PMDP-2025-03
2025 Mission #3

Mission Summary

- Tentative Dates: September 22 (Monday) – October 21, 2025 (Tuesday) – 30 days
- Tentative Islands/Atolls: Manawai, Kuaihelani, Hōlanikū
- Proposed Operations: In-Water (Reef) and Shoreline Cleanups
- Proposed Vessel: M/V Imua
- Logistics:
    - Gear Loading in Honolulu: September 19, 2025 (Friday)
    - Departure from Honolulu: September 22, 2025 (Monday)
    - Arrival in Honolulu: October 21, 2025 (Tuesday)
    - Gear Offloading in Honolulu: October 22, 2025 (Wednesday)

Proposed Itinerary

	Date	Day	Location (Island/Atoll)	Operations Proposed
LOAD	9/19/25	Friday	Honolulu	Ship Loading
1	9/22/25	Monday	Transit	Transit
2	9/23/25	Tuesday	Transit	Transit
3	9/24/25	Wednesday	Transit	Transit
4	9/25/25	Thursday	Transit	Transit
5	9/26/25	Friday	Transit	Transit
6	9/27/25	Saturday	Manawai	In-Water and Shoreline Cleanup
7	9/28/25	Sunday	Manawai	In-Water and Shoreline Cleanup
8	9/29/25	Monday	Manawai	In-Water and Shoreline Cleanup
9	9/30/25	Tuesday	Manawai	In-Water and Shoreline Cleanup
10	10/1/25	Wednesday	Manawai	In-Water and Shoreline Cleanup
11	10/2/25	Thursday	Manawai	In-Water and Shoreline Cleanup
12	10/3/25	Friday	Manawai	In-Water and Shoreline Cleanup
13	10/4/25	Saturday	Manawai	In-Water and Shoreline Cleanup
14	10/5/25	Sunday	Manawai	In-Water and Shoreline Cleanup
15	10/6/25	Monday	Manawai	In-Water and Shoreline Cleanup
16	10/7/25	Tuesday	Manawai	In-Water and Shoreline Cleanup
17	10/8/25	Wednesday	Manawai	In-Water and Shoreline Cleanup
18	10/9/25	Thursday	Manawai	In-Water and Shoreline Cleanup
19	10/10/25	Friday	Manawai	In-Water and Shoreline Cleanup
20	10/11/25	Saturday	Hōlanikū	Shoreline Cleanup
21	10/12/25	Sunday	Hōlanikū	Shoreline Cleanup
22	10/13/25	Monday	Hōlanikū	Shoreline Cleanup
23	10/14/25	Tuesday	Kuaihelani	Debris Pick-up
24	10/15/25	Wednesday	Kuaihelani	Debris Pick-up
25	10/16/25	Thursday	Transit	Transit
26	10/17/25	Friday	Transit	Transit
27	10/18/25	Saturday	Transit	Transit
28	10/19/25	Sunday	Transit	Transit
29	10/20/25	Monday	Transit	Transit
30	10/21/25	Tuesday	Honolulu	Ship Offloading
OFFLOAD	10/22/25	Wednesday	Honolulu	Ship Offloading

Table 3. Proposed mission itinerary and operations for PMDP-2025-03.

Standard Operating Procedures for In-Water Cleanups at Manawai, Kuaihelani, and Hōlanikū

1. Boat Launch and Transit:
    a. Four PMDP inflatable boats are launched from the deck of the Imua.
    b. The boats transit to the backreefs or lagoons of the atoll to survey for derelict fishing nets.
2. Net Survey Procedures:
    a. PMDP divers conduct swim surveys, towed-diver surveys, or use diver propulsion vehicles (DPVs) to locate nets in coral reef environments.
    b. When a net is located, PMDP divers:
        i. Survey the net and the surrounding area for nuisance algae (*Chondria tumulosa* and *Acanthophora spicifera*), recording its presence or absence on a datasheet.
3. Nuisance Algae Protocol:
    a. If nuisance algae is present:
        i. The net is left in place, and its location is noted in the datasheet.
        ii. All boats are notified immediately of its location, and operations are adjusted to a new location.
    b. If nuisance algae is absent:
        i. Additional data is collected on net location, characteristics, and its impact on habitat and wildlife.
4. Net Removal Assessment:
    a. Divers assess whether net removal is appropriate, using the "In-Water Marine Debris Removal Protocols".
    b. If removal is deemed appropriate:
        i. Divers carefully cut the net free from the reef.
        ii. The net is manually loaded into the inflatable boat.
5. Net Handling and Transport:
    a. Retrieved nets are secured within a helicopter sling cargo net, placed on a heavy-duty tarp inside the boat.
    b. Once the day's nets are loaded, the boats return to the Imua.
6. Unloading and Shipboard Processing:
    a. Boats are tied up alongside the Imua for unloading.
    b. Using the ship's crane, the helicopter sling cargo nets filled with derelict fishing nets are lifted out of the boat, drained of excess water over the water, and craned over the designated "Chondria runway" (a tarp with lifted edges designed to capture all excess water along its path).
    c. The nets are weighed at the designated "Chondria staging area" (a tarp with lifted edges).
    d. The nets are emptied into blue marine debris storage bins for additional biosecurity treatment.
7. Additional Biosecurity Treatment:
    a. The "Chondria runway", "Chondria staging area", and entire working deck are inspected, cleaned, and sanitized with a minimum concentration of 10% bleach solution.
    b. All small boats and equipment follow strict biosecurity protocols outlined in BMP 020.
    c. Once all four of the marine debris bins are fully loaded (projected around October 15), the bins are filled with a minimum concentration of 10% bleach solution and the nets are soaked for a minimum of four hours each.
    d. The concentration of the bleach solution is tested and adjusted throughout the four hours.
8. Transport to Honolulu:
    a. On October 16, once the marine debris bins have completed the full treatment, they are emptied of diluted bleach

solution using a hose directly from the bins overboard in the bleach removal zones (area outside of Special Preservation Areas (SPA) and Midway Atoll Special Management Area, typically 3 nautical miles offshore and greater than 1,000 feet deep).

b. After the bins are emptied of diluted bleach solution, the Imua transits back to Honolulu with the treated and sanitized debris.

c. Upon arrival at Honolulu Harbor:
    i. The storage bins are craned off the ship and placed onto the dock.
    ii. Each storage bin is trucked directly to the H-Power/Covanta Energy for incineration.

Standard Operating Procedures for Shoreline Cleanups at Manawai, Kuaihelani, and Hōlanikū

1. Boat Launch and Transit:
    a. Four PMDP inflatable boats are launched from the deck of the Imua.
    b. The boats transit to the shorelines of the islands to survey for marine debris.
2. Shoreline Survey Procedures:
    a. PMDP staff collect marine debris from the shoreline that is above the high-tide line and dry, while surveying for nuisance algae (*Chondria tumulosa* and *Acanthophora spicifera*), and recording its presence and location when found.
3. Nuisance Algae Protocol:
    a. If nuisance algae is present:
        i. The marine debris is left in place or moved up the shoreline to prevent it from remobilizing and continuing to threaten the wildlife and habitats, and its location is noted in the datasheet.
        ii. All boats are notified immediately of its location, and operations are adjusted to a new location.
    b. If nuisance algae is absent:
        i. Marine debris is sorted into separate piles of "nets" and "plastic" along accessible sections of the beach.
4. Debris Handling and Transport:
    a. The sorted debris is double-bagged into supersacks either onshore or directly in the boats.
    b. Each boat is loaded with 2-3 supersacks of marine debris, depending on weight and capacity.
    c. Once loaded, the boats transit back to the Imua.
5. Unloading and Shipboard Processing:
    a. The boats are tied up alongside the Imua for unloading.
    b. Using the ship's crane, the supersacks are lifted out of the boat onto a designated area of the ship's deck.
    c. The supersacks are weighed on the deck and then secured for transport.
6. Additional Biosecurity Treatment:
    a. All small boats and equipment follow strict biosecurity protocols outlined in BMP 020.
7. Transport to Honolulu:
    a. Once all marine debris operations are complete, the Imua transits back to Honolulu.
    b. Upon arrival at Honolulu Harbor:
        i. Supersacks will be craned from the deck into designated NAMZ roll-off containers on the dock.
        ii. Each NAMZ roll-off container, capable of holding 16-20 supersacks, will be trucked directly to H-Power/Covanta for incineration.

Map of Proposed Operations at Manawai, Kuaihelani, and Hōlanikū:

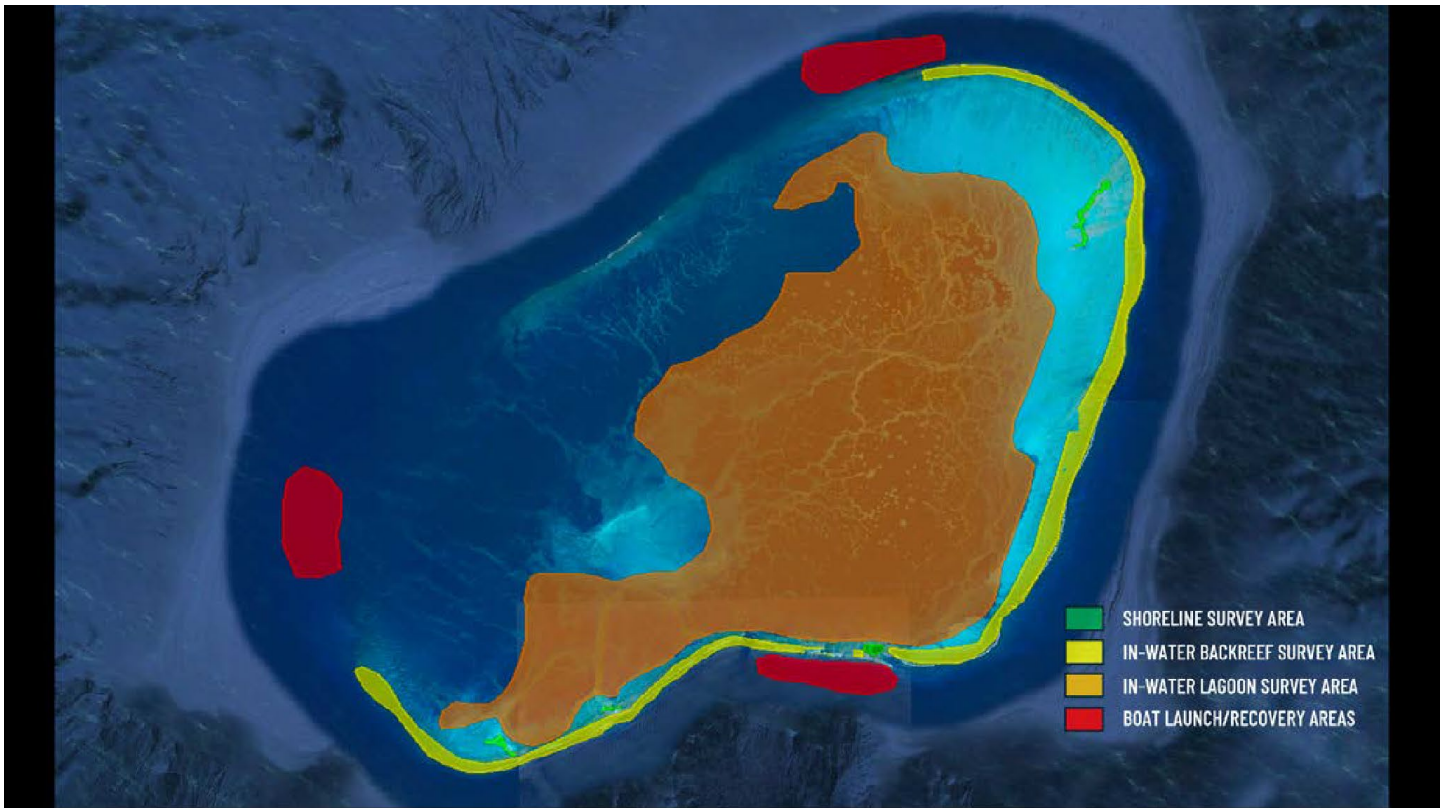

Image 8. Map of Manawai (Pearl and Hermes Atoll)) showing proposed areas for boat launch, recovery, and marine debris survey and removal operations.

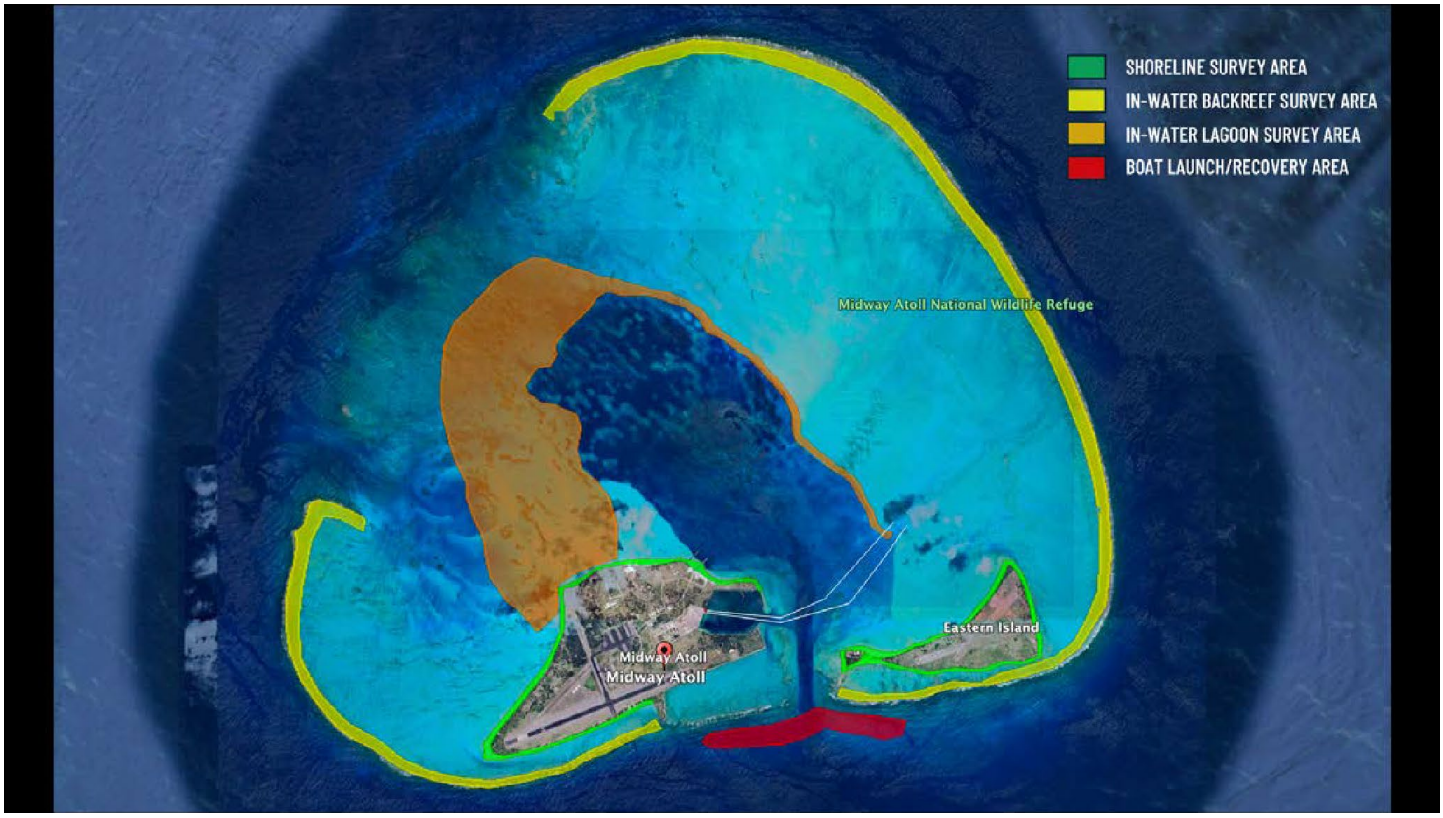

Image 9. Map of Kuaihelani (Midway Atoll) showing proposed areas for boat launch, recovery, and marine debris survey and removal operations. Marine debris survey and removal operations at Kuaihelani are unlikely aboard Imua.

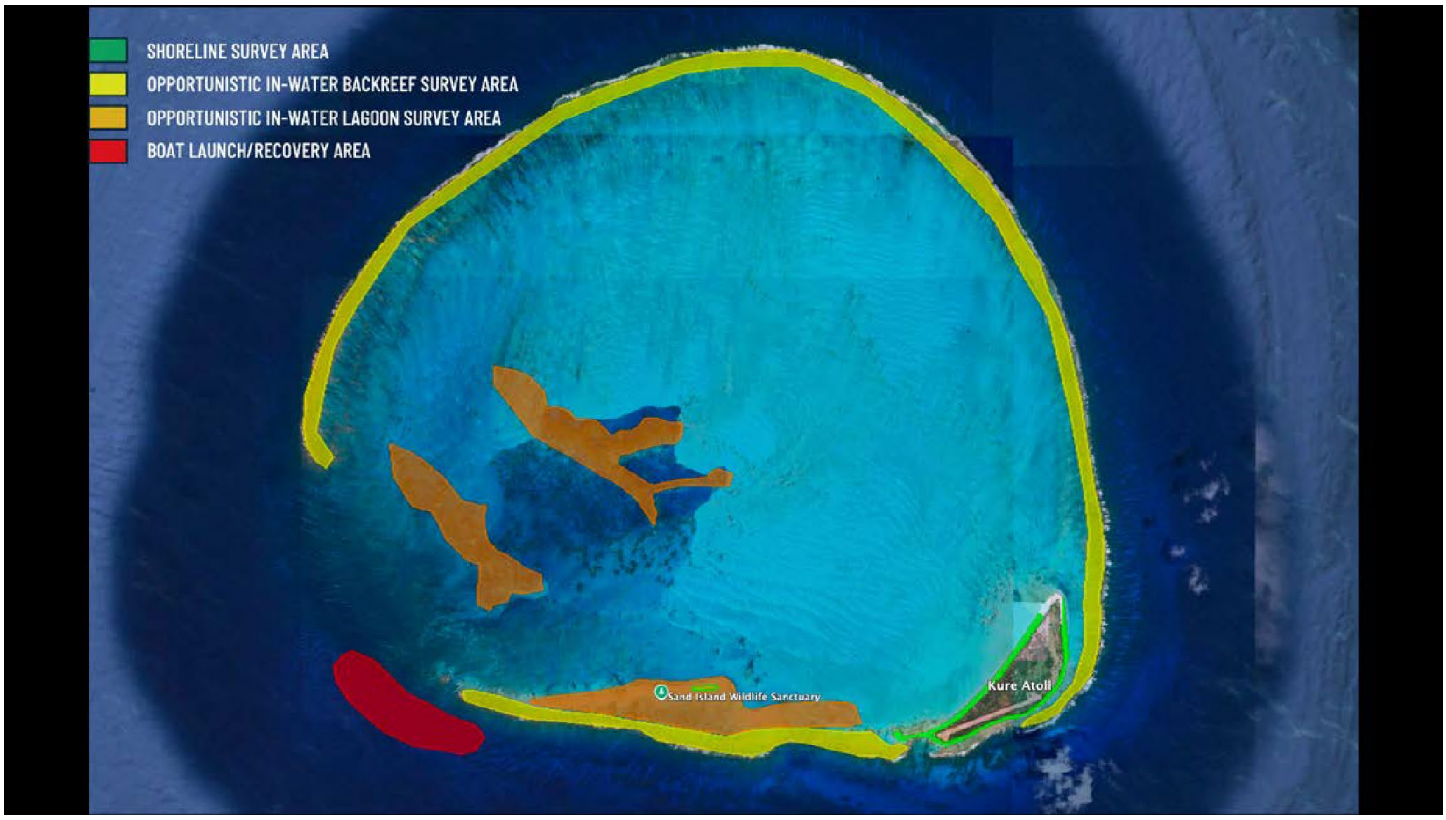

Image 10. Map of Hōlanikū (Kure Atoll) showing proposed areas for boat launch, recovery, and shoreline marine debris survey and removal operations. In-water marine debris survey and removal operations are unlikely.

DAR Comments/Questions on the Supplemental Biosecurity Plan for PMDP Marine Debris Survey and Removal Operations

UPDATED DAR Feedback 2/28/25

DAR does not approve of the proposed 5-month desiccation of the debris as an alternate treatment method and requests that (1) debris with visible algae be avoided and (2) all debris coming from any NAMZ returning to the MHI be treated with a bleach soak as described for other NAMZ debris including dry visible-Chondria-free debris from the shore. Research projects conducted by DAR and UH last summer did not indicate that desiccation was a viable alternative to the bleach soak method (for the durations/parameters that have been able to be tested so far). Further research is needed. DAR and UH in coordination with the USFWS may be continuing research this summer at Midway and could utilize some of the collected debris for those purposes but cannot, at this time, approve of an alternate treatment method besides the bleach soak.

Additional questions in response to responses provided by PMDP are highlighted below.

2/21/25 DAR Feedback

DAR rejects the biosecurity plan at this time due to more information needed on certain sections of the plan. The project should be able to move forward after providing more information or amending the SOP for certain activities. DAR is most concerned with the protocols outlined for debris from Kuaihelani. Additionally, DAR would like to work with PMDP to observe the disposal of all NAMZ debris upon return to Oʻahu as in previous years.

Comments/Questions

For: (pg. 7) Standard Operating Procedures for In-Water Cleanups at Kuaihelani

Section 5 (pg. 7):

❶¡.Unloading.and.Processing¿.a¡.Boats.position.themselves.adjacent.to.the.small.boat.ramp.for.unloading¡.

b¡.Using.a.telehandler?.the.helicopter.sling.cargo.nets.filled.with.derelict.fishing.nets.are.lifted.out.of.the.boat.and.transported.to.the.designated.tarmac.area¡.

c¡.Nets.are.weighed.on.the.tarmac.and.emptied.from.the.helicopter.sling.cargo.nets.to.desiccate.for.subsequent.transport.and.disposal¡.

Question: For section b. Would any additional tarps or similar be utilized under helicopter sling cargo nets filled with derelict fishing nets (or under path) when the nets are lifted out of the boat and transported to the designated tarmac area (in order to contain any escapement of Chondria fragments if present on the nets)?

PMDP lines the interior deck space of the inflatable boat with a tarp to catch any fragments. However, there are no plans to line the inside of the cargo net with a tarp or install a tarped "Chondria runway" to capture water drips or Chondria fragments between the boat, the dock, or the designated tarmac area.

Would it be logistically possible to implement a tarped "Chondria runway" to capture water drips or Chondria fragments between the boat, the dock, or the designated tarmac area if requested?

Question: For section c. Will nets be treated with the same bleach concentration utilized when being placed directly in the container on the boat (in addition to the desiccation stage noted) – is that bleaching treatment stage happening when the nets are picked up later on Mission #2 or Mission #3?

PMDP does not plan to treat the nets with the same bleach concentration when they are loaded onto the ship (M/V Imua). Instead, the nets will be dried on the tarmac in separate piles – "Chondria nets" and "Non-Chondria nets" – for five months. After drying and upon arrival on Mission #3, they will be double-bagged in supersacks and loaded onto the ship on pallets, rather than in the marine debris storage bins/containers.

If PMDP is unable to transport the "Chondria nets" back to Honolulu without treatment, we will request to leave them at Kuaihelani for treatment by USFWS using a smaller, non-craneable PMDP marine debris storage bin. The "Non-Chondria" nets will follow the existing, approved protocol for shoreline nets: double-bagged in supersacks, loaded on the ship's deck on pallets, and transported to Honolulu for direct incineration.

Can PMDP provide more information on the potential logistics of bleaching the nets in a smaller, non-craneable PMDP marine debris storage bin in the above scenario – i.e.:

- Would the nets / debris be placed in supersacks after sitting on the tarmacs for 5 months and then the sacks would be placed into the bin for bleach treatment and then craned out after to be placed on pallet or ship?

- If so would the bleach affect the structural integrity of the sacks for future craning?

- Or would the nets / debris be placed into the bins without a supersack and then be placed into supersacks after the bleach treatment – or is this not possible because it would create greater exposure to the hazardous bleached net/debris material than is normally encountered by personnel?

- If a container is filled with bleach water on island how would this water be disposed of?

Question: Will the nets be placed in a container or super sacks or remain in a cargo net while they sit on the tarmac?

PMDP plans to place the nets directly on the designated tarmac location, where wind and water will drain away from the water and into the land. The nets will not be placed in a container, supersacks, or a cargo net. However, if placing them in supersacks is preferred, PMDP can accommodate that.

Section 6 (pg. 7):

❷¡.Transport.to.Honolulu¿.

a¡.The.transport.of.the.in_water.marine.debris.[collected.on.Mission.7].to.Honolulu.is.proposed.for.PMDP_868❶_68.(»Mission.–8‹)

Question: For section a. Based on the dates and amount of days between the last date of Mission 1 and Mission 2 – is what is being proposed is for the in-water collected nets to sit on the tarmac desiccating between May 1, 2025 and September 12, 2025 (e.g. ≈ 4 months) and then be transported back to Honolulu without bleach treatment? Or if they are picked up on Mission 3 they would sit between May 1, 2025 and October 21, 2025 (e.g. ≈ 5 months) desiccating and then be transported back to Honolulu without bleach treatment?

Due to schedule changes for the M/V Imua, PMDP will retrieve the nets during our final stop on Mission #3. We propose that in-water collected nets remain on the tarmac to desiccate from May 1, 2025 – October 4, 2025 (5 months) before being transported back to Honolulu in double-bagged supersacks without bleach treatment.

For: (pg. 8) Standard Operating Procedures for Shoreline Cleanups at Kuaihelani

Notes for questions on section 2 & 4 below: The protocol the questions are about is stated later in the doc on pg. 22 in the Standard Operating Procedures for Shoreline Cleanups at Manawai, Kuaihelani, and Hōlanikū section under #2 – can this same info be included in sections reference below?

8¡.Shoreline.Survey.Procedures¿.a¡.PMDP.staff.collect.marine.debris.from.the.shoreline.that.is.above.the.high_tide.line.and.dry?.while.surveying.for.nuisance.algae.(Chondria.tumulosa.and.Acanthophora.spicifera)?.and.recording.its.presence.and.location.when.found (pg¡.88) .

PMDP is proposing to remove all marine debris from the shorelines of Kuaihelani on Mission #1, including debris inundated onshore, regardless of the presence of Chondria tumulosa and Acanthophora spicifera. This debris can be separated in piles of "Chondria" and "Non-Chondria" on the tarmac.

For shoreline cleanups at Manawai and Hōlanikū during Mission #3, PMDP plans to remove only dry marine debris located above the high-tide line. All shoreline debris at these locations will be inspected to ensure no Chondria tumulosa is present.

All shoreline locations where Chondria tumulosa or Acanthophora spicifera are found can be documented and marked.

Section 2 (pg. 8)

8¡.Shoreline.Survey.Procedures¿.

a¡.PMDP.staff.collect.marine.debris.from.the.shoreline?.while.surveying.for.nuisance.algae.(Chondria.tumulosa.and.Acanthophora.spicifera)?.and.recording.its.presence.and.coordinates~~-location.if-when~~.found¡.

b¡.Marine.debris.is.sorted.into.separate.piles.of.»nets‹ .and.»plastic‹ .along.accessible.sections.of.the.beach¡.

Question: For section 2 a. Is there a zone of the shoreline where the shoreline debris will be pick up in order to confirm that the debris has been dry for a certain amount of time? Right now this step does not specify if partially wet shoreline debris would be collected or if the debris would be collected above a certain line on the shoreline to try to avoid debris that may have recently been inundated with water (i.e. may have viable nuisance algae attached).

PMDP is proposing to remove all marine debris from the shorelines of Kuaihelani on Mission #1, including debris inundated onshore, regardless of the presence of Chondria tumulosa and Acanthophora spicifera. This debris can be separated in piles of "Chondria" and "Non-Chondria" on the tarmac.

For shoreline cleanups at Manawai and Hōlanikū during Mission #3, PMDP plans to remove only dry marine debris located above the high-tide line. All shoreline debris at these locations will be inspected to ensure no Chondria tumulosa is present. However, PMDP cannot confirm how long the debris has been dry.

Section 4. (pg. 8)

0¡.Unloading.and.On_Island.Processing¿.

a¡.The.boats.position.themselves.adjacent.to.the.small.boat.ramp.for.unloading¡.

b¡.Using.a.telehandler?.the.supersacks.are.lifted.out.of.the.boat.and.transported.to.the.designated.tarmac.area¡.

c¡.The.supersacks.are.weighed.and.stored.on.pallets.for.subsequent.transport.and.disposal¡.

Question: Confirming that the shoreline debris will not be treated with bleach – can more info be included to state why it's not being treated (e.g. shoreline debris is collected above a certain inundation zone of the beach)?

The shoreline debris from Mission #1 at Kuaihelani will not be treated with bleach. PMDP does not have the capacity to apply a bleach treatment during Mission #1 because our marine debris storage bins are not available at this location. The five bins used for our ship missions aboard M/V Imua are operationally designated for Mission #2 and Mission #3 and will be full prior to arriving at Kuaihelani for debris retrieval.

All debris, regardless of the presence or absence of Chondria tumulosa and Acanthophora spicifera, is proposed for removal from Kuaihelani during Mission #1 due to the hazards it poses to wildlife and the potential risk of nets remobilizing and drifting to another island or atoll. This debris can also serve as suitable material for further research to be conducted by the MMB.

For: (pg. 17) Proposed Marine Debris Pick-up at Kuaihelani

Sections 1 & 2 (pg. 17)

7¡.Debris.Handling.and.Transport¿.a¡.Five.months.after.PMDP_868❶_67?.PMDP.will.return.to.Kuaihelani.aboard.the.Imua.to.load.the.previously.collected.marine.debris¡.

i¡.Nets.from.the.in_water.cleanups.will.be.double_bagged.in.supersacks.at.the.designated.tarmac.area?.and.marked.as.»NAMZ‹ .supersacks.(to.differentiate.them.from.debris.from.Kamole.and.Kapou)¡.

ii¡.The.double_bagged.supersacks.from.shoreline.cleanups.will.also.be.marked.as.»NAMZ‹ .supersacks¡.

iii¡.Kuaihelani.staff.(Chugach.and.USFWS).will.assist.in.the.transport.of.all.NAMZ.supersacks.from.the.designated.tarmac.area.to.the.Sand.Island.dock.using.appropriate.vehicles.and.machinery¡.

8¡.Ship.Loading¿.

a¡.NAMZ.supersacks.will.be.craned.from.the.dock.onto.a.designated.area.of.the.Imua.using.the.ship"s.crane¡.

b¡.NAMZ.supersacks.will.be.stored.separately.on.pallets.and.secured.to.the.deck.of.the.ship.to.ensure.safe.transport¡.

Question: For section 2 b. Are the NAMZ supersacks being proposed to be stored separately on pallets and secured to the deck of the ship instead of being placed in a water-tight container?

PMDP proposed to retrieve all debris collected from Kuaihelani during Mission #1 on Mission #3 aboard M/V Imua. All debris will be double-bagged in supersacks and transported to Honolulu on the ship's deck on pallets, rather than stored in water-tight containers, for direct incineration.

Would it be logistically possible to place this debris in the watertight containers – or would there be potential opportunity for this if the water tight containers were not filled all the way from the other islands visited?

If PMDP is unable to retrieve the in-water "Chondria net" supersacks, we propose leaving them at Kuaihelani for treatment at a later time or until further research is completed by the MMB.

JOSH GREEN, M.D.
GOVERNOR | KE KIA‘ĀINA

SYLVIA LUKE
LIEUTENANT GOVERNOR |
KA HOPE KIA‘ĀINA

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

DAWN N. S. CHANG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RYAN K.P. KANAKA‘OLE
FIRST DEPUTY

CIARA W.K. KAHAHANE
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

March 28, 2025

TO: Division of Aquatic Resources File

THROUGH: Dawn N. S. Chang, 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 11-200.1 HAR, FOR A PAPAHĀNAUMOKUĀKEA MARINE NATIONAL MONUMENT CONSERVATION AND MANAGEMENT PERMIT TO MR. JAMES MORIOKA, PAPAHĀNAUMOKUĀKEA MARINE DEBRIS PROJECT (PMDP) FOR ACCESS TO STATE WATERS TO SURVEY AND REMOVE MARINE DEBRIS AND DISENTANGLE MARINE LIFE AS NEEDED WITHIN THE WATERS OF THE NORTHWESTERN HAWAIIAN ISLANDS UNDER PERMIT PMNM-2025-004.

The following permitted activities are found to be exempted from preparation of an environmental assessment under the authority of Chapter 343, HRS and Chapter 11-200.1, HAR:

Project Title: Papahānaumokuākea Marine National Monument Conservation and Management Permit to Mr. James Morioka, Papahānaumokuākea Marine Debris Project (PMDP), for Access to State Waters to Survey and Remove Marine Debris and Disentangle Marine Life as Needed within the Waters of The Northwestern Hawaiian Islands.

Permit Number: PMNM-2025-004

Project Description: The Conservation and Management Permit, as described below, would allow entry and activities to occur in Papahānaumokuākea Marine National Monument for the purposes of large scale marine debris survey and removal operations, including the Northwestern Hawaiian Islands State Marine Refuge and the waters (0-3 nautical miles) surrounding the following sites:

• Lālo (French Frigate Shoals)

• Kamokuokamohoali‘i (Maro Reef)
• Kamole (Laysan Island)
• Kapou (Lisianski Island)
• Manawai (Pearl and Hermes Atoll)
• Kuaihelani (Midway Atoll)
• Hōlanikū (Kure Atoll)

The activities covered under this permit would be authorized to occur via three separate missions, two cruises and one flight. The flight will travel to Kuaihelani on April 14 and return on May 1, 2025, with gear traveling to Kuaihelani on M/V Imua February 6-11, 2025 and returning to Honolulu on the M/V Imua May 6-13, 2025. The first cruise will take place between August 14, 2025 and September 12, 2025. The second cruise will take place between September 22, 2025 and October 21, 2025. Expedition dates may vary if unforeseen interruptions or delays occur.

INTENDED ACTIVITIES

The proposed permit activities would allow for large scale marine debris survey and removal operations within Papahānaumokuākea Marine National Monument (Monument).

A similar permit was issued in 2024 (PMNM-2024-003). New modifications/activities to the 2025 permit application include the following: (1) additional work in the water at Kuaihelani this year on the fly-in and fly-out mission and (2) photographic collection for fundraising purposes (detailed in the Supplemental Special Ocean Use Permit Application Questions attachment). A separate permit (PMNM-2025-005) will cover any fundraising related to images collected of activities conducted under this permit, PMNM-2025-004. A biosecurity plan has not been finalized but a final agreement on biosecurity protocols will be coordinated between subject-matter experts at the Division of Aquatic Resources, other MMB agencies, and PMDP in order for the permit to be considered valid for activities in the nuisance alga mitigation zones (NAMZ).

The NOAA Northwestern Hawaiian Islands (NWHI) Marine Debris Project (hereinafter referred to as the ‘Project’) began in 1996 and was led by NOAA Fisheries and other agency partners through 2021. The Project has demonstrated over time the necessity of large-scale marine debris removal operations for the protection and safety of marine wildlife, specifically the endangered Hawaiian monk seal and threatened green sea turtle. Between 2015 and 2021, the Project was co-led and co-managed by James Morioka (Executive Director, Papahānaumokuākea Marine Debris Project (PMDP), and Kevin O’Brien (President and Founder, PMDP), while still operating under NOAA, prior to the creation of PMDP in 2019. PMDP is proposing to lead the Project in the PMNM indefinitely, after partnering with NOAA, U.S. Fish and Wildlife Services (USFWS), and the State of Hawai‘i Department of Land and Natural Resources (DLNR) on three successful field marine debris removal missions in 2020-2021 (operating under the Co-Trustee permit).

PMDP has independently orchestrated and executed four successful field missions from 2022 to 2024 under its own permit, removing 202,950 pounds in 2022, 212,160 pounds in 2023, and 330,250 pounds in 2024. PMDP plans to remove a minimum of 115,000 pounds of marine debris from PMNM each year through 2026.

Specific objectives of the Papahānaumokuākea Marine Debris Project (PMDP) are as follows:

- Surveying for and removing derelict fishing gear (DFG) from shallow coral reef environments (0-30 ft depth) through swim surveys, diver propulsion vehicle surveys, aerial marine debris surveys, and tow-board surveys.

- Surveying for and removing DFG, plastics, and other entanglement hazards from shoreline habitats through manual shoreline surveys and aerial marine debris surveys.

- Transport of marine debris to and disposal of marine debris on Oʻahu through the use of customized PMDP storage bins and supersacks.

- Opportunistically removing large marine debris items such as buoys, derelict small boats, and other materials.

- Evaluating the rates of marine debris accumulation and assessing its abundance and distribution on coral reefs and shorelines.

- Assessing ecological impacts of DFG on coral reef environments through photographic surveys.

- Disentangling protected wildlife, including Hawaiian monk seals, sea turtles, and sea birds, from marine debris when human intervention is necessary or possible in coordination with relevant co-managing agencies.

- Conducting opportunistic surveys of Hawaiian monk seals and sea turtles, including capturing and tagging weaned Hawaiian monk seal pups when appropriate.

- Conducting Native Hawaiian cultural protocols to include hoʻokupu (offering) consisting of ti leaf and if permitted, wai (freshwater), paʻakai (salt), ʻawa (dried Piper methysticum), kalo (taro), or ulu (breadfruit).

PMDP intends to film/photograph protected wildlife (including Hawaiian monk seals, sea turtles, and sea birds) interacting or being affected by the threats of marine debris, while strictly following all PMNM BMPs. All footage (film/photograph) will be provided to the four Co-Trustees (NOAA, U.S. Fish and Wildlife Service, State of Hawaiʻi, Office of Hawaii Affairs) upon return from PMNM. PMDP also intends to capture images for fundraising purposes (separately permitted).

Methods/Procedures:

<u>In-Water Marine Debris Survey and Removal Operations:</u>
Three methods are utilized for the in-water survey and removal of derelict fishing gear (DFG):

- Tow-board Surveys: Tow-board surveys, regularly referred to 'manta tow', allows for rapid visual surveys in shallow water (0-30 ft depth) and maximum area coverage. This method requires two divers to use breath-hold techniques while being towed behind a 19-ft inflatable boat at 1-2 knots across fringing, barrier, or back reefs.

- Swim Surveys: Swim surveys are primarily utilized within atoll lagoons around reticulated reefs or in areas that are too shallow or intricate to conduct tow-board operations effectively.

- Diver Propulsion Vehicle (DPV) Surveys: DPV assisted swim surveys may be utilized within atoll lagoons around reticulated reef areas to cover more reef area per unit of time, allowing for more marine debris to be removed from the environment.

Shoreline Marine Debris Survey and Removal Operations:
Shoreline Surveys: PMDP staff will walk the shorelines (between low-tide line and vegetation on shore) of the islands and atolls within PMNM to survey for and remove marine debris. The Project primarily focuses on surveying for and removing entanglement and ingestion hazards to wildlife. Once the marine debris is identified, collected, and staged at a 'pick-up point', the 19-ft. inflatable boats approach accessible shorelines to safely load with the marine debris to transport back to the ship (and ultimately transport back to Honolulu, HI for proper disposal).

Aerial Marine Debris Survey Operations:
Unmanned Aerial Systems (UAS) Surveys: UAS surveys are expected to take place at all islands/atolls (if permissible under current regulations) and deployed and retrieved from the inflatable boat. Strict UAS protocols and BMPs will be followed and enforced for aerial survey operations. Flights will take place between 100 ft. minimum (over land or reef) and 400 ft. maximum altitude (if permissible).

Wildlife Disentanglement Operations:
The Project often encounters marine wildlife entangled in marine debris. Marine wildlife in the PMNM are protected and managed by the State and Federal government, and are protected by laws, rules and regulations that prohibit the interaction and intervention with wildlife. If permitted, PMDP staff who are fully qualified, certified, and trained to handle, restrain, and disentangle marine wildlife will assess the situation and report its outcomes to the appropriate office for guidance and next steps.

- Hawaiian Monk Seal Disentanglement Operations: Hawaiian monk seals are often entangled in marine debris and require intervention and disentangling to allow for survival. If/when an entangled Hawaiian monk seal is identified, the PMDP staff will notify the NOAA NMFS PIFSC PSD Hawaiian Monk Seal Research Program (HMSRP) of the entangled seal. A full assessment of the seal's health and surrounding habitat will be conducted and relayed to the HMSRP office. James Morioka (Executive Director, PMDP) is a professionally trained Hawaiian monk seal handler (worked for HMSRP 2011-2013) and has helped handle and/or disentangle dozens of seals in the PMNM. In collaboration with PMDP, James Morioka helped handle and disentangle two adult, female, Hawaiian monk seals in 2021. If permitted,

James Morioka or other authorized persons on the NOAA NMFS Permit (Permit #27552), would lead a team to handle, restrain, and disentangle the endangered seal through: 1) manual restraint, 2) hoop-net restraint, or 3) stretcher-net restraint protocols and procedures.

- Marine Turtle Disentanglement Operations: Marine turtles are often entangled in marine debris, particularly in shallow water coral reef environments. If a turtle is entangled, the team will assess the turtle and its surrounding environment. If permitted, and the disentangling scenario does not cause further risk to the staff and Project, the team will handle the turtle, holding its head above water so that it can breathe effectively, and complete their disentanglement.

Marine Debris Transport and Disposal:
Marine debris collected from within the Papahānaumokuākea Marine National Monument will be managed as follows (for more details, please refer to the Supplemental Biosecurity Plan):

1. All marine debris will be stored in PMDP's specialized marine debris storage bins or placed in super sacks.

2. When derelict fishing nets are stored in PMDP's marine debris storage bins, they will be cut to appropriate sizes in the field. These nets will remain contained in the bins until they arrive in Honolulu. Upon arrival, the marine debris storage bins will be craned of the ship wholesale and transported directly to either:

    a. H-Power/Covanta Energy through Hawaii's "Waste to Energy" initiative for direct incineration, or
    b. Plastic Research Recycling Facility Center for Marine Debris Research for recycling through Hawaii Pacific University's "Nets to Roads" initiative.

3. All other marine debris not stored in PMDP's marine debris storage bins, primarily ocean plastics, will be stored in supersacks on the ship's deck until they reach Honolulu. Upon arrival in Honolulu, this debris will be craned off the ship and placed in roll-off containers provided by Radius Recycling. These containers will then be transported to HPower/Covanta for incineration and disposal.

More detailed information about the project can be found in the application.

ADHERANCE TO FINDINGS CRITERIA, BMPs, AND OTHER SAFETY PROTOCOLS:

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

☒ Removing, moving, taking, harvesting, possessing, injuring, disturbing, or damaging any living or nonliving Monument resource
☒ Anchoring a vessel

☒ 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
☒ Swimming, snorkeling, or closed or open circuit SCUBA diving within any Special Preservation Area or Midway Atoll Special Management Area

Monument Management Plan Strategies

The activities proposed by the applicants directly support the Monument Management Plan (PMNM MMP Vol. 1, 2008), including but not limited to the following priority management needs:

- Strategy MD-1: Remove and prevent marine debris throughout the life of the plan:
    - Activity MD-1.1: Continue working with partners to remove marine debris in the Monument and reduce additional debris entering the Monument;
    - Activity MD-1.2: Catalog, secure, contain, and properly remove hazardous materials that wash ashore in the NWHI;
- Strategy MD-2: Investigate the sources, types, and accumulation rates of marine debris within 5 years;
    - Activity MD-2.1: Work with partners on marine debris studies;
    - Activity MD-2.2: Develop and standardize marine debris monitoring protocols for marine and terrestrial habitats;
- Strategy MD-3: Develop outreach materials regarding marine debris within 2 years.
    - Activity MD-3.1: Work with partners to continue to develop and implement an outreach strategy for marine debris.

Best Management Practices (BMPs)

To safeguard Monument resources the applicants will abide by all PMNM Best Management Practices (BMPs) while conducting the aforementioned activities within PMNM:

BMP Number	Title	Download
001	Marine Alien Species Inspection Standards for Maritime Vessels	PDF
002	Protocol for Acquiring Avian Blood Samples	PDF
003	Human Hazards to Seabirds Briefing	PDF
004	Best Management Practices for Boat Operations and Diving Activities	PDF
005	Protocols to Reduce Impact to the Laysan Finch	PDF
006	General Storage and Transport Protocols for Collected Samples	PDF
007	Best Management Practices for Terrestrial Biosecurity	PDF

008	Seabird Protocols Necessary for Conducting Trolling Research and Monitoring in Papahānaumokuākea Marine National Monument	PDF
009	Best Practices for Minimizing the Impact of Artificial Light on Sea Turtles	PDF
010	Marine Wildlife Viewing Guidelines	PDF
011	Disease and Introduced Species Prevention Protocol for Permitted Activities in the Marine Environment, Papahānaumokuākea Marine National Monument (Monument)	PDF
012	Precautions for Minimizing Human Impacts on Endangered Land Birds	PDF
015	Nonnative Species Inspection Requirements at Midway Atoll	PDF
016	Best Management Practices for Activities on Nihoa	PDF
017	Best Management Practices for Maritime Heritage Sites	PDF
018	Rodent Prevention and Inspection Standards for Permitted Vessels	PDF
019	Best Management Practices for Activities on Mokumanamana (Necker Island)	PDF
020	Best Management Practices to minimize the spread of nuisance alga	PDF

For activities related to the nuisance algal outbreak of *Chondria tumulosa* at Kuaihelani (Midway Atoll), Manawai (Pearl and Hermes Atoll), and Hōlanikū (Kure Atoll), BMP #20 requires a biosecurity plan which is currently under review. Permitted activities at these atolls will be subject to this plan once it is approved by all co-managing agencies. Activities at these atolls will not occur without an approved biosecurity plan.

REVIEW PROCESS:

The permit application was sent out for review and comment to the following scientific and cultural entities: Hawai‘i Division of Aquatic Resources, Hawai‘i 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 was posted on the Monument website, 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

MMB Agency Reviewer Questions and Applicant Responses:

1. ONMS would like to request that we acknowledge PMDP's challenges in meeting biosecurity protocols for nets collected in NAMZs and to reiterate that we will continue to work towards more manageable solutions, including those for the collection of nets with visible nuisance algae present.

Mahalo, ONMS

2. Can PMDP forward any information on the abundance of C. tumulosa during net surveys on the eastern backreef of Manawai as that is a very shallow and difficult place to access with our vessels. I circled the area I'm referring to in the image below taken from pg 23 of their biosecurity plan.

Map of Proposed Operations at Manawai, Kuaihelani, and Hōlanikū:

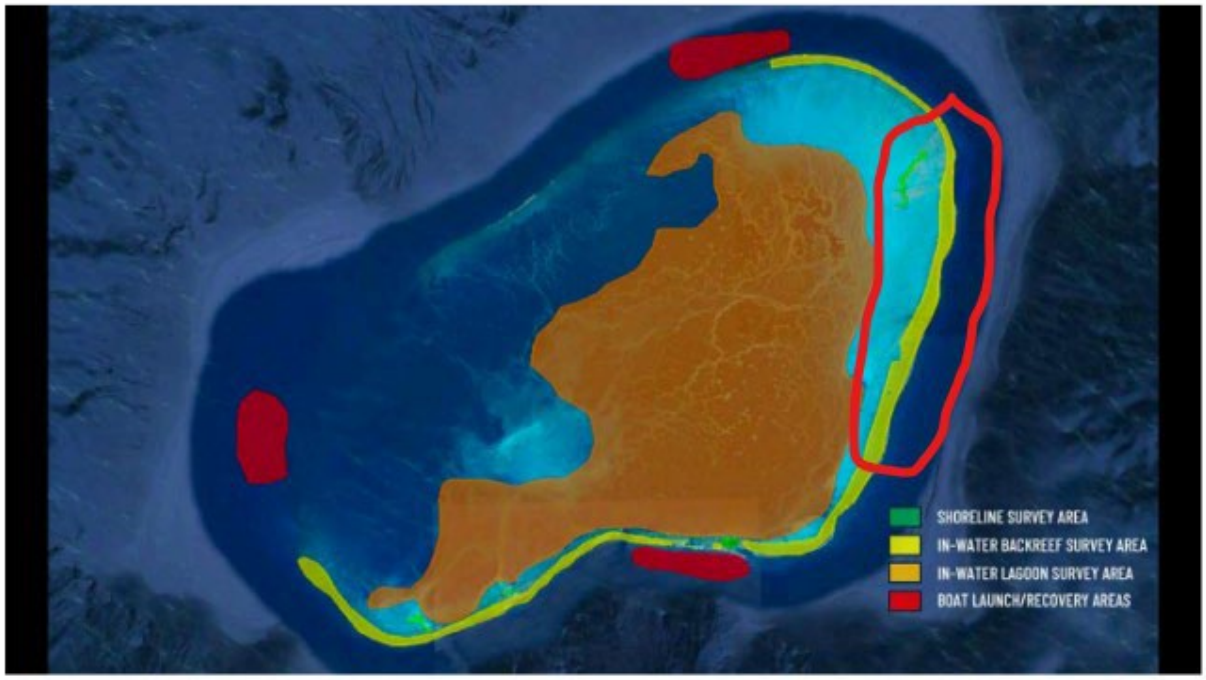

Image 8. Map of Manawai (Pearl and Hermes Atoll) showing proposed areas for boat launch, recovery, and marine debris survey and removal operations.

Yes, I will review our ArcGIS in-water database to identify any specific coordinates of Chondria tumulosa on the eastern backreef of Manawai (pg. 23). xx

3. Please ensure existing sharing of images for co-trustee use without restriction continues, includes imagery to be used for SOU purposes.

Yes, absolutely. All images will be shared with all Co-Trustees at the conclusion of each field mission.

4. Avoid anchoring on hard substrate to minimize impacts to benthic organisms. Anchors should be placed in sand whenever possible.

Yes, we strictly avoid anchoring on hard substrate to minimize impacts on benthic organisms.

5. This is a critically important project that needs to continue. PMDP has worked hard to make sure their biosecurity protocols are solid and are using the most up-to-date data to ensure

their protocols are the best they can be. PMDP has the best interest of PMNM in mind with everything they do. PMDP has been doing this for years with a stellar track record. The benefits to PMNM are countless for the health of coral reef ecosystems and ESA species.

Mahalo, MMB. We take biosecurity very seriously at PMDP and remain committed to ensuring that all facets of our operations protect and preserve the wildlife and habitats of PMNM.

6. In adherence to BMP07 any Ho'okupu should not be composed of biological material on the quarantine Islands and nearshore waters. The list of Ho'okupu are approved for Kauihelani but not the quarantine islands.

We understand that ho'okupu, including any biological material such as ti leaf leis, will not be offered on quarantine islands or nearshore waters. Our ho'okupu ceremony takes place in the open ocean while crossing the boundary of Ao to Pō, many miles from any islands, with the closest being Mokumanamana.

Biosecurity Plan Specific Questions and Responses
All MMB agencies aside from DAR have expressed support and endorsement of the PMDP biosecurity plan. According to BMP #020, all MMB agencies must approve of the supplemental biosecurity plan. DAR has provided numerous comments to PMDP regarding the plan and a meeting occurred on March 7th to further discuss DAR's concerns directly with PMDP. DAR comments that are specific to the biosecurity plan are not included here but the comments made so far are included as an attachment to the BLNR submittal. Future comments and questions will be incorporated in the final biosecurity plan that will be approved prior to validity of this permit and PMDP's departure for PMNM. The first unapproved version of the biosecurity plan is also attached to the BLNR submittal.

ENVIRONMENTAL COMPLIANCE

NEPA / HEPA: (check-one)

☒ Categorical Exclusion / Exemption Type: 1 & 5
☐ EA
☐ EIS

Other Consultations: (ESA/MMPA Section 7; NHPA Section 106, etc.)

- An informal review of all aforementioned activities following section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA; 16 U.S.C. 1855(b)) was conducted. The outcome of this review may have required the applicant to adhere to other NMFS-prescribed conditions; such conditions would be reflected in the PMNM permit, prior to issuance.
- The proposed activities are covered under PMNM's programmatic ESA Section 7 informal consultation with National Marine Fisheries Service (NMFS). The outcome of this consultation may have required the applicant to adhere to other NMFS-prescribed

conditions; such conditions would be reflected in the PMNM permit, prior to issuance.

- NOAA previously conducted a Programmatic Environmental Assessment (PEA or EA) under the National Environmental Policy Act (NEPA), resulting in a Finding of No Significant Impact (FONSI) in June 2005 (valid indefinitely) for the Project. PMDP's operation strictly adheres to all existing NOAA protocols and procedures, ensuring the safe execution of the mission.

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

If so, please summarize past permits:

Conservation and Management Permits (marine debris removal): PMNM 2022-06, 2023-05, 2024-003

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 ☒

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 §11-200.1-15, HAR, including the criteria used to determine significance under §11-200.1-13, 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 methodology used throughout the permit period, the categorical exemption determination here will treat all planned activities as a single action under §11-200.1-10, HAR.

2. The General Exemption Type #1 for Operations, Repairs or Maintenance of Existing Structures, Facilities, Equipment, or Topographical Features, Involving Minor Expansion or Minor Change of Use Beyond That Previously Existing and The General Exemption Type #5 for Basic Data Collection, Research and Experimental Management with no Serious or

Major Environmental Disturbance Appears to Apply. §11-200.1-16 (a) (1) and §11-200.1-16 (a) (2), HAR, exempts the class of actions that involve the "operations, repairs or maintenance of existing structures, facilities, equipment, or topographical features, involving minor expansion or minor change of use beyond that previously existing" and "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 type has been interpreted to include activities related to the surveying and removal of marine debris, and disentanglement of marine wildlife, as needed and as described above.

The proposed activities here appear to fall squarely under the general exemption type identified under HAR §11-200.1-16 (a) (1) and §11-200.1-16 (a) (2), as described under the revised 2020 DLNR Exemption List (Concurred on by the Environmental Council on November 10, 2020), under the general exemption type #1 (Part 1), items #1, #2 and #31 and under the general exemption type #5 (Part 1), items #13 and #15 and (Part 2), item #4:

Type #1 (Part 1), items #1, #2 and #31, includes, respectively, the "removal of boulders, rocks, hazardous trees, marine debris, and other similar hazards necessary to maintain lands and waters in a safe condition" and the "rescue of threatened or endangered species", and the removal and disposal of rubbish and debris from lands and waters".

Type #5 (Part 1), items #13 and #15 and (Part 2), item #4, includes, respectively, "research that the Department declares is designed specifically to monitor, conserve, or enhance native species or native species' habitat", "game and non-game wildlife surveys, vegetation and rare plant surveys, aquatic life surveys, inventory studies, new transect lines, photographing, recording, sampling, collection, culture, and captive propagation" and "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, the general exemption types 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." §11-200.1-15 (d), HAR. 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. 11-200.1-13, HAR.

The applicant would abide by the PMNM Best Management Practices (BMPs) as listed in earlier section above while conducting the aforementioned activities within the PMNM. PMDP's operation follows all existing NOAA protocols and procedures in place for this same Project when it was operated by NOAA (for which a Finding of No Significant Impact (FONSI) in June 2005 was determined), for the safe execution of the mission.

All Papahānaumokuākea Marine Debris Project (PMDP) activities proposed will be carried out with strict safeguards for the natural, cultural, and historic resources of the Monument as required by Presidential Proclamation 8031, and other applicable policies and standard operating procedures. All agencies will receive PMDP's detailed field protocols and best management practices (BMP). These practices and procedures will minimize or avoid disturbance to wildlife, flora, habitat, and cultural and historic resources.

PMDP conducts rigorous PMNM (biological and environmental), ship, small boat, and freedive/snorkel operational training before conducting at-sea field operations. This training regimen emulates the rigorous training that James Morioka (PMDP Executive Director) and Kevin O'Brien (PMDP President) led at NOAA for all field staff in preparation for field operations between 2007- 2021 and continued with PMDP in from 2022 to 2024. This includes all marine debris removal activities, but also how to safeguard and minimize impacts to other natural and cultural resources. This will be further supported through PMNM pre-access and cultural briefings for all staff. In addition, James Morioka has conducted Resource Monitor duties on past expeditions; either this member of the personnel or another member of the personnel who has been trained in PMNM Resource Monitor duties will accompany all permitted activities to provide oversight and ensure compliance with permit conditions and BMPs.

Careful biosecurity quarantine procedures (outlined under PMNM BMP 007) will be followed and enforced at each island where personnel land on shore or boats and divers are put in the water. This includes use of gear purchased new and dedicated to each island/atoll. Thorough cleaning, biosecurity, and safe storage protocols are followed between field missions and adherence to biosecurity procedures outlined under PMNM BMP 020 is applied in water or zones where applicable.

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 have a Minimal or No Significant Effect on the Environment. 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 conservation and management 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 11-200.1 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.