

DEPARTMENT OF LAND AND NATURAL RESOURCES

State of Hawai'i
Division of Aquatic
Resources Honolulu,
Hawai'i 96813

July 11, 2025

Board of Land and
Natural Resources
Honolulu, Hawai'i

Request for Authorization and Approval to Amend the Board of Land and Natural Resources' (BLNR's) Prior Authorization and Approval for the Issuance of a Papahānaumokuākea Marine National Monument Conservation and Management Permit (PMNM-2025-004) Issued 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

The Division of Aquatic Resources (DAR) hereby submits a request to amend the Board of Land and Natural Resources' (BLNR's) prior authorization and approval for issuance of a Papahānaumokuākea Marine National Monument conservation and management permit (PMNM-2025-004) to Mr. James Morioka, PMDP, pursuant to §187 A-6, Hawaii Revised Statutes (HRS), Chapter 13-60.5, Hawaii Administrative Rules (HAR), and all other applicable laws and regulations.

AMENDMENT REQUEST

This request seeks to amend the BLNR's prior authorization and approval for issuance of a Papahānaumokuākea Marine National Monument (Monument) conservation and management permit (PMNM-2025-004) to PMDP for a revised island access schedule.

The amendment, 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:

- Nihoa
- Mokumanamana

SUMMARY

Of the three PMDP missions planned for this year, the first mission (Kuaihelani (Midway Atoll) clean-up April 14 - May 1, 2025) is complete, however, PMDP will no longer be conducting shoreline marine debris removal activities at Manawai, Hōlanikū, and Kuaihelani on the third mission. Therefore, PMDP requests to amend the second and third missions to the following:

Mission 2: August 5–27, 2025: Nihoa, Mokumanamana, Lalo, Kamokuokamohoali‘i, Kamole, and Kapou

Mission 3: September 15 – October 10, 2025: Kamokuokamohoali‘i and Manawai

This revised schedule now includes access to Nihoa and Mokumanamana to conduct the activities outlined below:

Nihoa – August 6, 2025

- Conduct Native Hawaiian cultural protocol, limited to oli (chant).
- Perform opportunistic unmanned aerial system (UAS) surveys targeting sandy beach areas and shallow coral reef zones for marine debris.

Mokumanamana – August 7, 2025

- Conduct Native Hawaiian cultural protocol, including ho‘okupu (ceremonial gift offering) using permitted items: ti leaf lei, wai (rainwater), and pa‘akai (salt) — all cleaned, inspected, and frozen for 48 hours. Any ho‘okupu will be released outside of nearshore waters per PMNM permit conditions.
- Conduct opportunistic small boat launch/recovery practice and UAS surveys, with cultural sensitivity toward wahi pana and Native Hawaiian cultural sites. The primary objective is to survey the shallow coral reef for marine debris.

Expedition dates may vary if unforeseen interruptions or delays occur. The activities covered under the original permit and this amendment are authorized to occur between April 2025 and March 2026.

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

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

- Discharging or depositing any material or matter into the Monument
- Possessing fishing gear except when stowed and not available for immediate use during passage without interruption through the Monument

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* in the nuisance algal mitigation zones (NAMZ) at Kuaihelani (Midway Atoll), Manawai (Pearl and Hermes Atoll), and Hōlanikū (Kure Atoll), BMP #20 requires a biosecurity plan. PMDP worked with co-managing agencies on an approved plan for each mission. The plan was accepted with the caveat that any debris collected from the NAMZ would be treated with an approved decontamination method before being brought back to the Main Hawaiian Islands for disposal. The plan and comments specifying the accepted and nonaccepted parts are included in the final plan attached to this submittal.

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 former Native Hawaiian Program Specialist, Kalani Quioco, 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.*

ENVIRONMENTAL COMPLIANCE

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 PAPAHAANAUMOKUĀKEA MARINE NATIONAL MONUMENT CONSERVATION AND MANAGMENT PERMIT TO MR. JAMES MORIOKA, PAPAHAANAUMOKUĀKEA 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”)

STAFF OPINION

DAR staff is of the opinion that the amendment request should be approved.

MONUMENT MANAGEMENT BOARD OPINION

The MMB is of the opinion that the amendment request should be approved.

RECOMMENDATION

That the BLNR authorize and approve this request to amend the prior authorization and approval for the issuance of the Papahānaumokuākea Marine National Monument Conservation and Management Permit PMNM-2025-004 to Mr. James Morioka, Papahānaumokuākea Marine Debris Project (PMDP), to include activities around Nihoa and Mokumanamana.

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. Final PMDP Biosecurity Plan for 2025

DAR Acceptance and Nonacceptance of PMDP's Supplemental Biosecurity Plans

There are three plans, one plan for each mission.

DAR accepts the Supplemental Biosecurity Plan #2: Mission #2: Non-NAMZ document as is.

DAR accepts the plans for removing marine debris from Kuaihelani reefs/shore and leaving the debris onshore outlined in the Supplemental Biosecurity Plan #1: Mission #1: Kuaihelani document with its earlier recommendations now incorporated and subject to any changes suggested by FWS Midway staff on better methods to mitigate the spread of *Chondria tumulosa* or marine debris into other areas of the environment at Kuaihelani such as mitigation methods for activities at the harbor.

DAR rejects the portion of Supplemental Biosecurity Plan #3: Mission #3 proposed for the return of debris collected within the NAMZ (including the return of the debris from Kuaihelani) to the MHI as described on page 4 and 7 of the Supplemental Biosecurity Plan #3: Mission #3: NAMZ document, and requests that all debris collected from the NAMZ (shoreline or in-water) be treated prior to return to the MHI.

A suggested edit for all NAMZ debris: "transport of untreated marine debris to Honolulu depends on further research regarding nuisance algae or treatment using the existing proven bleach solution method. Until these actions are completed, the untreated marine debris will remain onshore and may not be transported back to Honolulu for disposal."

Suggestions for Biosecurity Plan #1 (pg. 4 of PDF):

- Suggest adding following to 4. e. The "catchment" is inspected and cleaned to ensure no marine debris or algae remains or enter the water.
- Suggest adding following to 5. Transport to Honolulu: a. The transport of supersacks containing shoreline debris to Honolulu also depends on further research regarding marine debris containing nuisance algae. Until this action is completed (or standard bleach treatment is applied), the supersacks must be stored at Kuaihelani and may not be transported back to Honolulu for disposal.

DAR appreciates PMDP's continued efforts on these plans and especially the updated format that includes the adoption of all earlier recommendations about the collection of debris at Kuaihelani (spotter, tarp, etc.). This should reduce the chance of the algae and debris falling into the harbor.

Supplemental Biosecurity Plan #1
PMDP Marine Debris Survey and Removal Operations

PMDP-2025-01
2025 Mission #1
Kuaihelani ONLY

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 secure to affixed beams at the dock adjacent to the small boat ramp for unloading.
- b. A "catchment" apron is deployed between the dock and the small boat to capture any water droplets or net/algae fragments.
- c. A visual spotter assists in the removal process to prevent net/algae fragments from entering the water.
- d. 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.
- e. The "catchment" is inspected and cleaned to ensure no net/algae fragments remain or enter the water.
- f. Nets are weighed on the tarmac and emptied from the helicopter sling cargo nets to desiccate.

6. Transport to Honolulu:

- a. The transport of in-water marine debris to Honolulu depends on further research regarding the nets containing nuisance algae, or treatment using the existing proven bleach solution method. Until these actions are completed, the nets must be stored at Kuaihelani and may not be transported back to Honolulu for disposal.

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. PMDP requests approval to pilot a non-motorized beach wagon with inflatable and/or fully foam tires for transporting marine debris across the shoreline.
- c. 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. Boats secure to affixed beams at the dock adjacent to the small boat ramp for unloading.
- b. A "catchment" apron is deployed between the dock and the small boat to capture any marine debris.
- c. A visual spotter assists in the removal process to prevent marine debris from entering the water.
- d. Using a telehandler, the supersacks are lifted out of the boat and transported to the designated tarmac area.
- e. The "catchment" is inspected and cleaned to ensure no marine debris remains or enter the water.
- f. Supersacks are weighed on the tarmac and stored on pallets.

5. Transport to Honolulu:

- a. The transport of supersacks containing shoreline debris to Honolulu also depends on further research regarding marine debris containing nuisance algae. Until this action is completed, the supersacks must be stored at Kuaihelani and may not be transported back to Honolulu for disposal.

Map of Proposed Operations at Kuaihelani

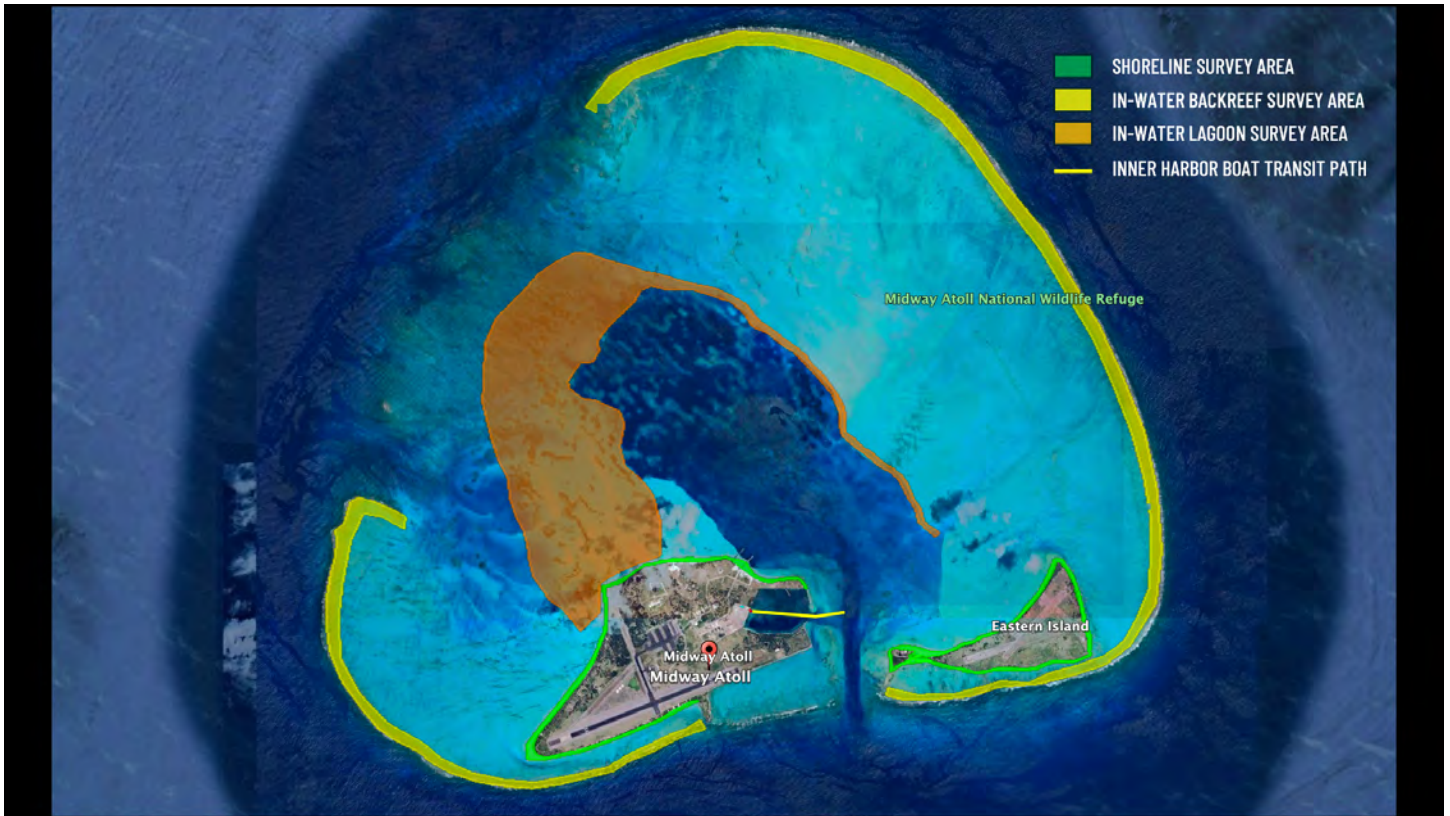


Image 1. Map of Kuaihelani (Midway Atoll) showing proposed areas for shoreline and in-water marine debris survey and removal operations.



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 on 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.

Supplemental Biosecurity Plan #2
PMDP Marine Debris Survey and Removal Operations

PMDP-2025-02

2025 Mission #2

Non-NAMZ ONLY – Cruise #1

Mission Summary

- Tentative Dates: **August 5 (Tuesday) – 27 (Wednesday), 2025 – 23 days**
- Tentative Islands/Atolls: Lalo, Kamokuokamohoali'i, Kamole, Kapou
- Proposed Operations: In-Water (Reef) and Shoreline Cleanups
- Proposed Vessel: M/V Imua
- Logistics:
 - Gear Loading in Honolulu: August 4, 2025 (Monday)
 - Ship Departure from Honolulu: August 5, 2025 (Tuesday)
 - Ship Arrival in Honolulu: August 27, 2025 (Wednesday)
 - Gear Offloading in Honolulu: August 28, 2025 (Thursday)

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 (PRRF) 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 (PRRF) 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.

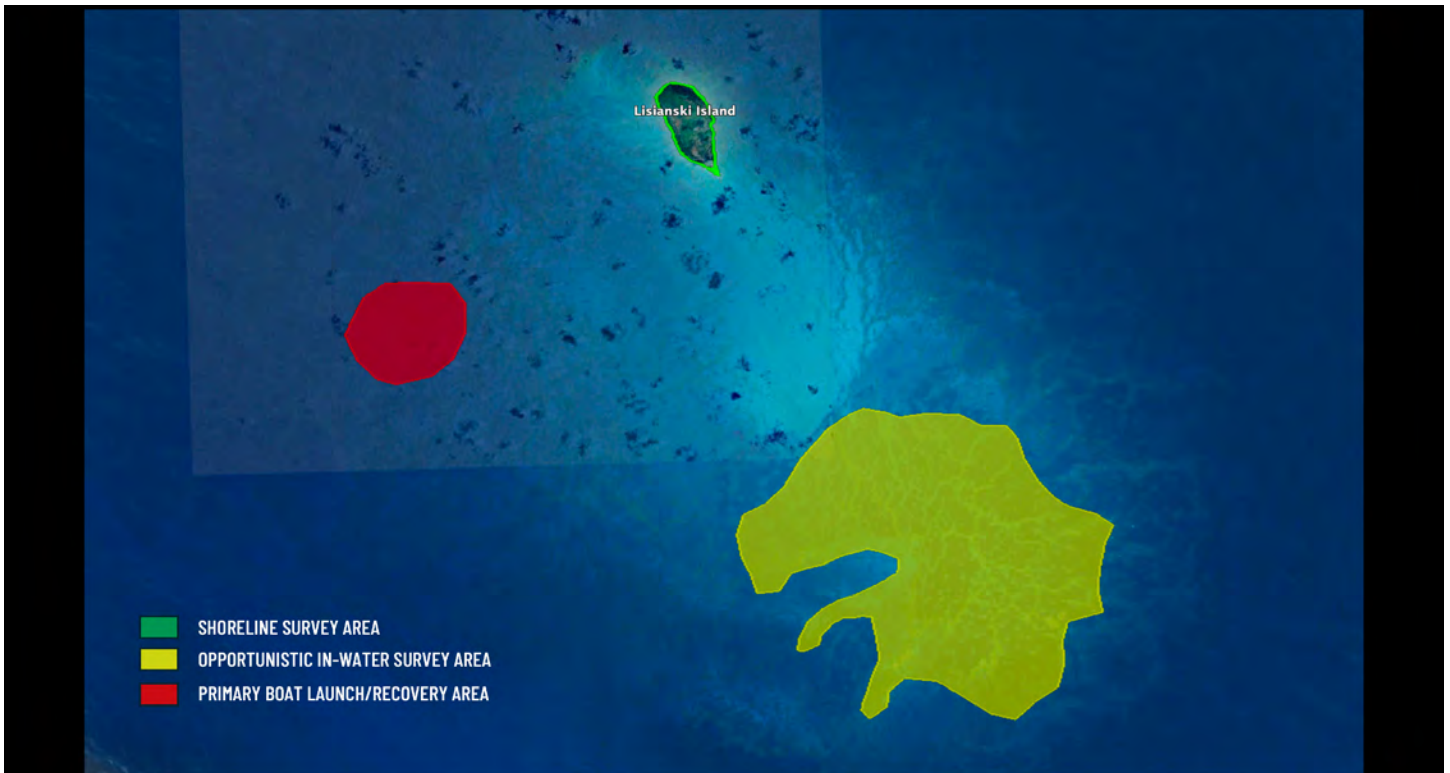


Image 6. Map of Kapou (Lisianski) showing proposed areas for boat launch, recovery, and shoreline marine debris survey and removal operations. In-water marine debris survey and removal operations are unlikely.

Supplemental Biosecurity Plan #3
PMDP Marine Debris Survey and Removal Operations

PMDP-2025-03

2025 Mission #3

NAMZ ONLY – Cruise #2

Mission Summary

- Tentative Dates: **September 13 (Saturday) – October 10, 2025 (Friday) – 28 days**
- Tentative Islands/Atolls: Manawai, Hōlanikū; Debris Pick-up Only at Kuaihelani
- Proposed Operations: In-Water (Reef) and Shoreline Cleanups
- Proposed Vessel: M/V Imua
- Logistics:
 - Gear Loading in Honolulu: September 12, 2025 (Friday)
 - Departure from Honolulu: September 13, 2025 (Saturday)
 - Arrival in Honolulu: October 10, 2025 (Friday)
 - Gear Offloading in Honolulu: October 11, 2025 (Saturday)

Standard Operating Procedures for In-Water Cleanups at Manawai 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 5), 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 5, 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, greater than 3 nautical miles offshore and 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 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 and Hōlanikū:

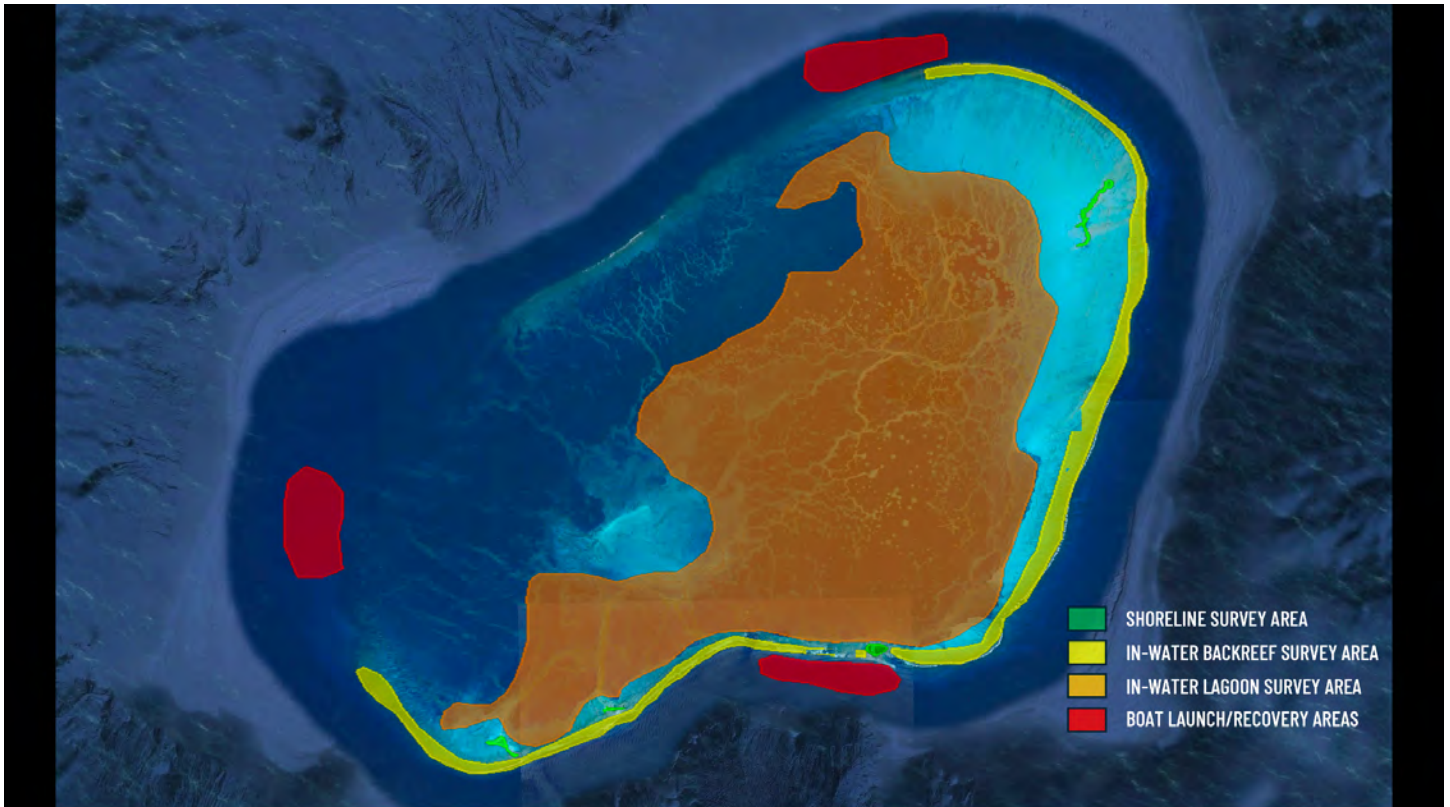


Image 8. Map of Manawai (Pearl and Hermes Atoll) showing proposed areas for boat launch, recovery, and marine debris survey and removal operations.

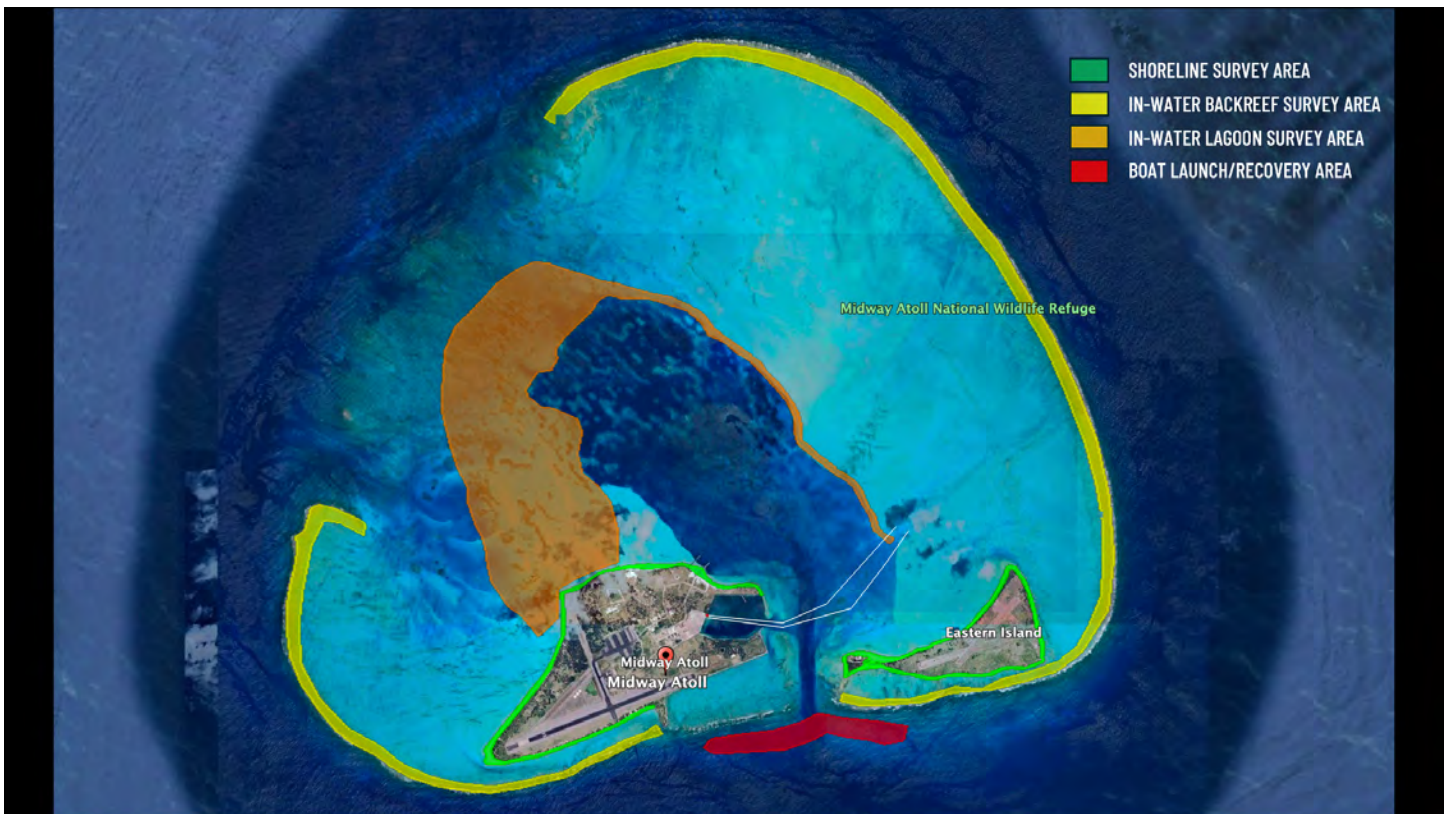


Image 9. Map of Kuaihelani (Midway Atoll) showing proposed areas for boat launch, recovery, and marine debris survey and removal operations. Marine debris survey and removal operations at Kuaihelani are unlikely aboard Imua.

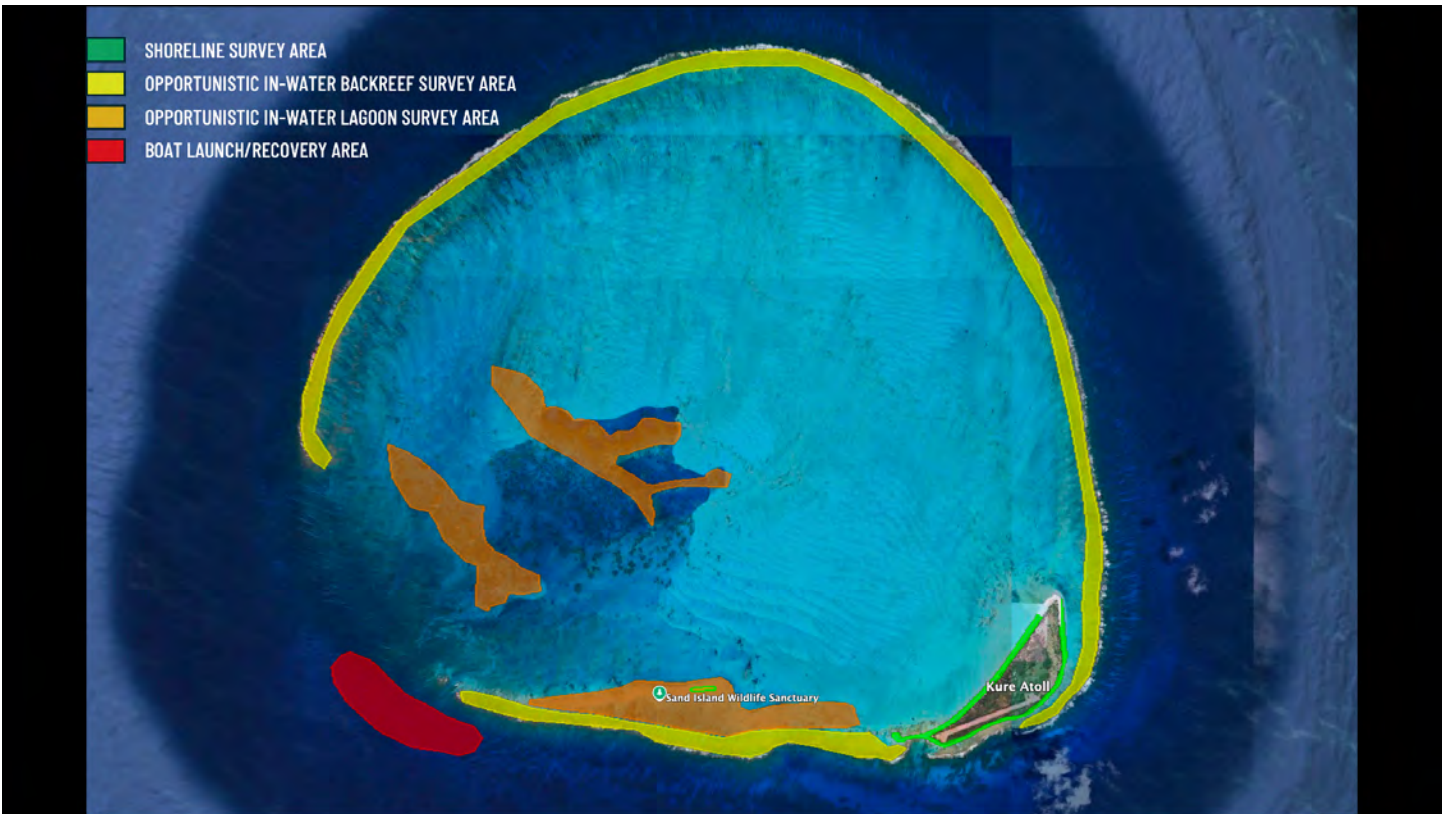


Image 10. Map of Hōlanikū (Kure Atoll) showing proposed areas for boat launch, recovery, and shoreline marine debris survey and removal operations. In-water marine debris survey and removal operations are unlikely.

Proposed Marine Debris Pick-up at Kuaihelani

1. Debris Handling and Transport:

- a. Five months after PMDP-2025-01, PMDP may return to Kuaihelani aboard the Imua to load the previously collected marine debris (May 1, 2025 - October 5, 2025).
- b. The transport of in-water marine debris to Honolulu depends on further research regarding the nets containing nuisance algae, or treatment using the existing proven bleach solution method. Until these actions are completed, the marine debris must be stored at Kuaihelani and may not be transported back to Honolulu for disposal.



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