



**United States Department of the Interior**  
**FISH AND WILDLIFE SERVICE**  
**Midway Atoll National Wildlife Refuge**  
**Battle of Midway National Memorial**  
**1082 Makepono St.**  
**Honolulu, HI. 96819**



April 28, 2017

Ms. Ann M. Garrett  
Assistant Regional Administrator  
Protected Resources Division  
NMFS Pacific Islands Regional Office  
1845 Wasp Blvd., Building 176  
Honolulu, HI 96818

RE: Request to Initiate Informal Programmatic Consultation Under Section 7 of the Endangered Species Act for the Seawall Repairs Along Henderson Airfield, Midway Atoll

Dear Ms. Garrett:

The purpose of this letter is to initiate informal consultation pursuant to Section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. §1531 et seq.). The U.S. Fish and Wildlife Service (Service) and the Federal Aviation Administration (FAA) propose to conduct repairs under this consultation as needed along a 5,720-foot-long seawall located on Midway Atoll's Sand Island. The action is needed because the existing seawall, constructed in 1957-58, is aging and failing. Repairs would be made by replacing damaged sheet pile with armor rock revetment. Revetments would consist of large (2- to 3-foot diameter) armor rock placed over smaller rocks. Construction materials would be brought to the Refuge from existing quarries on the Pacific Coast, Alaska and/or Hawai'i.

We request an initiation of informal consultation pursuant to section 7(a)(2) of the ESA , and your concurrence with our determination that the proposed action discussed below may affect, but is not likely to adversely affect, Hawaiian monk seals (*Noemonachus schauinslandi*), Main Hawaiian Islands (MHI) false killer whale (*Pseudorca crassidens*), Central North Pacific green sea turtle (*Chelonia mydas*), Distinct Population Segments (DPS), hawksbill sea turtles (*Eretmochelys imbricata*), North Pacific loggerhead sea turtle (*Caretta caretta*) DPS, olive ridley sea turtles (*Lepidochelys olivacea*), leatherback sea turtles (*Dermochelys coriacea*), sperm whales (*Physeter macrocephalus*), fin whales (*Balaenoptera physalus*), blue whales (*Balaenoptera musculus*), sei whales (*Balaenoptera borealis*), and North Pacific right whales (*Eubalaena japonica*); and that the proposed actions would have no more than minimal impact on monk seal critical habitat.

#### Action Area

The action area is the seawall that protects Henderson Airfield runway, the inner harbor of Sand Island within Midway Atoll; and the waters between Honolulu, HI and the lagoon at Midway Atoll National Wildlife Refuge (also designated as the Battle of Midway National Memorial) which is part of the Papahānaumokuākea Marine National Monument (Monument). The Refuge is managed by the National Wildlife Refuge System, while the Monument is managed

cooperatively by four Co-Trustees: the Service, the National Oceanic and Atmospheric Administration, the State of Hawaii, and the Office of Hawaiian Affairs.

### Proposed Action

This programmatic would cover the as needed repairs of the approximately 5,720 feet of the south seawall on Midway Atoll, and the transport and staging of materials and equipment needed to complete the repairs. Materials would include rock of various sizes that would be transported from Honolulu to Midway Atoll. Repairs would take place on an annual cycle (when funding allows) between mid-August and October to avoid important nesting times for migratory birds. Repairs would consist of removing damaged sheet pile and replacing it with an armor rock revetment that would consist of three layers:

- A shallow trench that would be excavated to 1-foot depth and filled with granular fill. A geotextile fabric may be placed over this layer to keep the smaller sediment in place;
- An approximately 2-foot thick layer of medium size rock weighing around 150 pounds each; and
- An approximately 4-foot thick layer of armor rock weighing around 1,500 pounds each.

Construction materials would be transported from quarries on the Pacific Coast, Alaska, and/or Hawaii. As part of the proposed action, construction materials may be brought to the Refuge well in advance of actual repair actions to take advantage of favorable weather conditions or reduced bird populations. Upon arrival at Midway, the materials would be offloaded by excavator or front-end loaders and would be stacked at the staging area adjacent to the inner harbor for future use. All stockpile areas would be on existing paved surfaces, and all haul routes would be along existing roads, runway access routes or previously cleared areas along the seawall.

All construction would be done from land. Existing seawall structure and materials would be removed as needed, but in most cases, the revetment would be placed on top of existing materials and fill using an excavator arm or crane bucket.

Over time the entire 5,720 feet of the seawall would be replaced, this would result in a total cumulative footprint of 6.6 acres (287,500 square feet) in the marine waters. Repairs would be made as needed to protect Refuge resources, with particular emphasis on protecting Henderson Airfield runway. The most likely repair scenarios would be to repair 1,000 linear feet of seawall over the ten-year period covered by this programmatic, resulting in a total footprint of 1.15 acres (50,100 square feet).

To minimize the likelihood of interactions with listed species, the Service would abide by the following Monument Best Management Practices (BMPs) while conducting the proposed activities: Boat Operations and Diving Activities, and Marine Wildlife Viewing Guidelines; and adhere to the following protocols:

- If there is a protected species in the area prior to performing any component of the permitted activity, that activity should not commence until the animal(s) voluntarily departs the area; if the protected species is in the area when that activity is already underway, that activity should cease until the animal voluntarily departs the area.
- All project staff would be informed of the potential presence of listed species and be given species information by the biological monitor. All personnel are required to go through orientation upon arrival at Midway Atoll or immediately the next day in the case of an unusually late arrival.

- A biological monitor would be on-site during all work activities and would conduct pre-work survey to determine the presence of seals, turtles, seabirds, and cetaceans, work would not commence until all seals and turtles have left the area.
- Construction materials or sediments should not be stockpiled in the marine environment.
- Construction-related materials should be placed or stored in ways to avoid or minimize disturbance to marine resources.
- All construction-related materials and equipment to be placed in the water should be cleaned of pollutants prior to use. When in service, if pollutants are found to be leaking from any equipment, that piece of equipment should be removed from service until the cause of the leak has been fixed.

### Analysis of Effects

Our analysis considered potential impacts or stressors to identified marine resources within the Monument and the waters to be transited, including: Hawaiian monk seals, false killer whales, green sea turtles, hawksbill sea turtles, loggerhead sea turtles, olive ridley sea turtles, leatherback sea turtles, sperm whales, fin whales, blue whales, sei whales, and North Pacific right whales. We believe the most likely potential impacts/stressors are: increased human activity, injury from construction activity, potential ship strikes, exposure to debris and contaminants, risk of entrapment, and effects to designated Hawaiian monk seal critical habitat.

#### *Increased human activity*

The increase in human activity and operation of heavy equipment may disturb nests established in or near the construction site. The use of artificial lights near shore can confuse certain protected species within that environment, leading to injury or mortality. The placement of the armor rock into the water by heavy equipment may disturb seals and turtles by increasing noise levels and turbidity.

The Service believes that likely impacts to protected species would be minimized because the repair activities will be short in duration, and will employ the use of observers during all construction activities who will be authorized to order shutdown of activities should it be necessary, thereby reducing the risk of exposing protected species to loud noise.

In addition to the BMPs mentioned above, the Service proposes to implement the following additional measure to mitigate any potential impacts to listed species:

- All project staff would be informed of the potential presence of listed species and be given species information by the biological monitor. All personnel are required to go through orientation upon arrival at Midway Atoll or immediately the next day in the case of an unusually late arrival. All personnel would receive the Monument Pre-Access Briefings, and the Midway Atoll National Wildlife Refuge and Battle of Midway National Memorial Briefings before commencing work on the project.
- Prior to and during work, designated personnel would monitor the site to ensure that mitigation measures are followed and to observe for the presence of protected species.

Based on adherence to the BMPs, the widely scattered nature of listed species in the project area and the tendency for listed species to avoid areas with human activities; we expect the level of disturbance to listed species from the project activities to be insignificant.

### *Injury from construction activity*

Materials would be offloaded from the barge by excavator or front-end loader and moved by truck to a designated stockpile area near the work site via routes specified by Refuge staff. All stockpile areas would be on existing paved surfaces. All haul routes would be on existing roads, runway access routes, or previously cleared/disturbed areas along the seawall. Construction materials may require storage on Sand Island for several weeks or even months prior to construction, depending on construction windows established to protect birds and on the logistics of getting materials and crews to the island. If barged early, the rock and other construction materials would be loaded onto trucks and driven to a temporary stockpile area void of any environmental concerns.

Seabirds, seals, and sea turtles within the construction site are at risk from injury from heavy equipment and construction materials. Construction will be scheduled to avoid the seabird nesting season, and pre-construction surveys will be performed to insure the project site is free of any protected species prior to transporting materials or beginning any repair work. Seals and turtles are not able to haul out because of the seawall, and observers will be positioned so as to monitor the nearshore environment. Construction activities will be delayed well before any protected species is close enough to the project area to risk physical injury, and so is an unlikely effect of the project.

In addition to the BMPs mentioned above, the Service proposes to implement the following additional measure to mitigate any potential impacts to listed species:

- A biological monitor would be on-site during all work activities and would conduct pre-work surveys to determine the presence of species of concern in the seawall repair area. Work would not commence until the monitor confirms to the construction foreman (or designated representative) that all sensitive species have left the area. The biological monitor would have the authority and responsibility to shut down disturbance-causing construction activities if a sensitive species were present within 150 feet of the seawall repair area.
- If listed species approach the seawall repair area after work has already begun, all work would cease within 150 feet of the animal. Additionally, any potentially disruptive activities within the area (further than 150 feet) would also cease until the animal leaves the area of its own volition.

Based on adherence to the BMPs, the limited project area, the widely scattered nature of listed species in the project area and the tendency for listed species to avoid areas with human activities; we expect the likelihood of an injury to listed species due to construction activity to be discountable.

### *Potential for ship strikes*

Due to the remote location and lack of local resources, construction materials would be brought to the Refuge from existing quarries on the Pacific Coast, Alaska and/or Hawaii. As part of the proposed action, construction materials may be brought to the island well in advance of proposed repair actions to ensure that materials are on hand when needed.

At least five endangered whale species are found in the offshore waters of Midway and the Hawaiian Islands. While unlikely to be affected by the seawall repair or any actions contained within the atoll, each of these species is at risk from ship strike. Deliveries of materials and equipment will implement recommended strike avoidance procedures and any additional

measures recommended in the PMNM permit to avoid the risk of negative affects to endangered whale species.

Shipments to the Refuge for the project would follow all pertinent Monument BMPs. Barges and auxiliary vessels would stage in Honolulu, HI to undergo required cleaning and eradication to prevent transport of invasive species. All vessels would comply with vessel monitoring system protocols. Additional BMPs associated with the transport of the materials needed for the repairs would include:

- Reduce vessel speed to 10 knots or less when piloting vessels in the proximity of marine mammals;
- Reduce vessel speed to 5 knots or less when piloting vessels in areas of known or suspected turtle activity;
- All work will be postponed, meaning the vessel would stop when whales and other protected species are within 200 meter of the ship. Vessel will resume operations only after the animal(s) depart the area.

Based on adherence to the BMPs, along with no known record of ship strikes with a marine protected species by any authorized vessel operator in the Monument; we expect the likelihood of a marine protected species being the victim of a ship strike to be discountable.

#### *Exposure to debris and contaminants*

Debris is present within the seawall itself and within the immediate vicinity, dating from the seawall construction and earlier. Materials encountered during construction will be removed and properly disposed of, thereby reducing the potential of negative effects to protected species from debris ingestion or entrapment.

In addition to the BMPs mentioned above, the Service proposes to implement the following additional measure to mitigate any potential impacts to listed species:

- All manmade construction debris would be collected and not allowed to enter waters of the U.S.
- All debris removed from the seawall construction site would be disposed of at an approved upland site.
- If debris or spill material accidentally enters the waterway, immediate actions would be taken to remove the material and proper entities notified.
- Care would be taken in all work to prevent debris, oils, and grease from entering the water.
- Turbidity and siltation from the removal of existing sheet piles would be minimized and confined to the immediate vicinity of the removal and discharge through the use of effective silt containment devices (e.g., silt curtains) and the curtailment of debris removal during adverse sea conditions.
- Fueling of construction related equipment shall occur away from the seawall construction site at a designated location with the ability to handle an accidental spill.
- Contractor would follow protocol in the existing Spill Prevention, Control and Countermeasures Plan for Service, prepared in 2004 and last updated in 2009 (GeoEngineers, Inc).

- A contingency plan to control the accidental spills of petroleum products at the construction site shall be developed. Absorbent pads and containment booms would be stored on-site to facilitate the cleanup of petroleum spills.
- A contingency plan to respond to previously unknown hazardous materials discovered during construction shall be developed. The plan shall include specific chain of communication and steps to contain and/or remove and dispose of hazardous materials.

Based on adherence to the BMPs, limited amount of time that activities associated with the project would occur, and the widely scattered nature of listed species in the project area; we expect the likelihood of exposure to debris or contaminants for listed species from the project activities to be discountable.

#### *Risk of entrapment*

The current condition of the seawall presents a risk of entrapment to seabirds, seals, and sea turtles, as demonstrated at other similar facilities. Repair of the seawall will remove the risk of these animals becoming trapped behind the corroded seawall. The newly constructed armor rock revetment may also improve access to the nearshore environment for these species without the obstruction of the failing seawall to intervene.

In addition to the BMPs mentioned above, the Service proposes to implement the following additional measure to mitigate any potential impacts to listed species:

- Armor rocks and fill materials shall be placed in a manner that would not pose an entrapment hazard to fish and wildlife.
- At the end of each day of work at the seawall repair site, the biological monitor would inspect the area to determine if it may pose a hazard for seals or turtles to be trapped and the monitor would direct project staff to alter armor rocks to ensure no entrapment can occur.

Based on adherence to the BMPs, the widely scattered nature of listed species in the project area and the tendency for listed species to avoid areas with human activities; we expect the risk of entrapment to be discountable.

#### *Effects to designated Hawaiian monk seal critical habitat*

Because the current sheet pile seawall is a manmade hardened structure, the marine areas adjacent to the Henderson Airfield runway where the rock wall revetment would be constructed is not designated as monk seal critical habitat. But, monk seal critical habitat has been designated in the lagoon and beach areas of Midway Atoll where activities associated with the transport and staging of the materials and equipment for the seawall repairs would occur. Potential impacts from transport of seawall materials and staging would include the risk of a vessel grounding, rock or construction equipment being dropped during offloading, and a contaminant spill. These potential impacts would be reduced or eliminated due to the general and special conditions imposed on the proposed action.

Based on adherence to Boating Operation BMPs, and the proposed protocols to prevent and minimize debris or contaminant spills; we expect the level of disturbance to designated monk seal critical habitat to be insignificant.

## Effect Determination

We have evaluated the effects of the proposed actions on ESA-listed marine species. The proposed action, repairs of the approximately 5,720 feet of the south seawall on Midway Atoll, and the transport and staging of materials and equipment needed to complete the repairs, populations of ESA-listed Hawaiian monk seals (*Neomonachus schauinslandi*), MHI false killer whale (*Pseudorca crassidens*), Central North Pacific green sea turtle (*Chelonia mydas*) DPS, hawksbill sea turtles (*Eretmochelys imbricata*), North Pacific loggerhead sea turtle (*Caretta caretta*) DPS, olive ridley sea turtles (*Lepidochelys olivacea*), leatherback sea turtles (*Dermochelys coriacea*), sperm whales (*Physeter macrocephalus*), fin whales (*Balaenoptera physalus*), blue whales (*Balaenoptera musculus*), sei whales (*Balaenoptera borealis*), and North Pacific right whales (*Eubalaena japonica*).

Based on our analysis and adherence to the Best Management Practices listed above, the Service has determined that the likelihood of listed species sustaining an injury from construction activities, being a victim of a potential ship strike, being exposed to debris and contaminants, or being at risk of entrapment are discountable; and that the likely impacts from increased human activities and the effects to designated monk seal critical habitat would be insignificant. Therefore, we request your concurrence with our determination that the proposed action may affect, but is not likely to adversely affect, Hawaiian monk seals, MHI false killer whales, Central North Pacific green sea turtle DPS, hawksbill sea turtles, North Pacific loggerhead sea turtle DPS, olive ridley sea turtles, leatherback sea turtles, sperm whales, fin whales, blue whales, sei whales, and North Pacific right whales; and with our determination that the proposed action will have no more than minimal effect on monk seal critical habitat.

Please contact me should you have further questions or concerns.

**ROBERT PEYTON** Digitally signed by ROBERT  
PEYTON  
Date: 2017.04.28 16:13:45 -11'00'

Robert L. Peyton  
Refuge Manager



**U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE**

Pacific Islands Regional Office  
1845 Wasp Blvd., Bldg 176  
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**MAY 17 2017**

Mr. Bob Peyton  
Refuge Manager  
Midway Atoll National Wildlife Refuge  
United States Fish and Wildlife Service  
1082 Makepono St.  
Honolulu, HI 96819

Mr. Peyton:

On May 2, 2017, the U.S. Fish and Wildlife Service (USFWS) sent the National Marine Fisheries Service (NMFS) Pacific Islands Regional Office (PIRO) a request for informal programmatic consultation (along with supporting documents) under Section 7 of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. §1531 et seq.). A programmatic consultation is an effective way for the Federal government to consult on a relatively large number of unrelated actions, or on a single action that is repeated over a period of time, all of which have minimal impact on protected species, or have impacts that can be mitigated through the implementation of best management practices.

Along with your request letter, additional documentation was sent which provided greater detail on the proposed action, the resources in the project area, and the mitigation measures that the Service and the FAA are proposing to minimize the impacts from this project. These include: the Environmental Assessment Seawall Long Term Maintenance Project, the Biological Assessment Seawall Long Term Maintenance Project, Appendix A Description of Proposed Action, Appendix B Implementation Plan, and the Midway Seawall Coral Mitigation Plan.

Your request asked for our concurrence with your determination that repairs of the seawall along the runway of Henderson Airfield on Midway Atoll within the Papahānaumokuākea Marine National Monument (Monument) and the activities associated with transport and staging of construction materials at Midway Atoll, may affect but is not likely to adversely affect (NLAA) the Central North Pacific green sea turtle Distinct Population Segment (DPS), hawksbill sea turtles, leatherback sea turtles, olive ridley sea turtles, North Pacific loggerhead sea turtles, Hawaiian monk seals, Main Hawaiian Islands false killer whale DPS, blue whales, fin whales, sei whales, sperm whales, and North Pacific right whales.

The programmatic covering these actions will be in force from the date that all authorizing signatures have been obtained. Actions that would be covered are the as-needed repairs of the south seawall on Midway Atoll, and the transport and staging of materials and equipment needed to complete the repairs. As a condition of the programmatic, an annual report from the USFWS will be submitted on the number of actions undertaken under the auspices of the programmatic.

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). The programmatic will be available through NMFS' Public Consultation Tracking System [<https://pcts.nmfs.noaa.gov>]. A complete record of this consultation is on file at the Pacific Island Regional Office, Honolulu, Hawaii.



Proposed Action/Action Area: The action area is the seawall that protects Henderson Airfield runway and the waters immediately adjacent to the seawall that will be impacted by the construction activities, the inner harbor of Sand Island within Midway Atoll; and the waters between Honolulu, HI and the lagoon at Midway Atoll National Wildlife Refuge (also designated as the Battle of Midway National Memorial) which is part of the Monument. The Refuge is managed by the USFWS National Wildlife Refuge System, while the Monument is managed cooperatively by four Co-Trustees: the USFWS, the National Oceanic and Atmospheric Administration, the State of Hawaii, and the Office of Hawaiian Affairs.

This programmatic would cover the as-needed repairs of the approximately 5,720 feet of the south seawall on Midway Atoll, and the transport and staging of materials and equipment needed to complete the repairs. Materials would include rock of various sizes that would be transported from Honolulu to Midway Atoll. Repairs would take place on an annual cycle (when funding allows) between mid-August and October to avoid important nesting times for migratory birds. Repairs would consist of removing damaged sheet pile and replacing it with an armor rock revetment that would consist of three layers:

- A shallow trench that would be excavated to 1-foot depth and filled with granular fill. A geotextile fabric may be placed over this layer to keep the smaller sediment in place;
- An approximately 2-foot thick layer of medium size rock weighing around 150 pounds each; and
- An approximately 4-foot thick layer of armor rock weighing around 1,500 pounds each.

Construction materials would be transported from quarries on the Pacific Coast, Alaska, and/or Hawaii. As part of the proposed action, construction materials may be brought to the Refuge well in advance of actual repair actions to take advantage of favorable weather conditions or reduced bird populations. Upon arrival at Midway, the materials would be offloaded by excavator or front-end loaders and would be stacked at the staging area adjacent to the inner harbor for future use. All stockpile areas would be on existing paved surfaces, and all haul routes would be along existing roads, runway access routes or previously cleared areas along the seawall.

All construction would be done from land. Existing seawall structure and materials would be removed as needed, but in most cases, the revetment would be placed on top of existing materials and fill using an excavator arm or crane bucket.

Over time the entire 5,720 feet of the seawall would be replaced, resulting in a total cumulative footprint of 6.6 acres (275,000 square feet) in the marine waters. Repairs would be made as needed to protect Refuge resources, with particular emphasis on protecting Henderson Airfield runway. The most likely repair scenarios would be to repair 1,000 linear feet of seawall over the ten-year period covered by this programmatic, resulting in a total footprint of 1.15 acres (50,100 square feet).

Species That May Be Affected: The USFWS has determined that the proposed action is NLAA the Central North Pacific green sea turtle (*Chelonia mydas*) DPS, hawksbill sea turtles (*Eretmochelys imbricata*), North Pacific loggerhead sea turtle (*Caretta caretta*) DPS, olive ridley sea turtles (*Lepidochelys olivacea*), leatherback sea turtles (*Dermochelys coriacea*), Main Hawaiian Islands false killer whale (*Pseudorca crassidens*) DPS, sperm whales (*Physeter macrocephalus*), fin whales (*Balaenoptera physalus*), blue whales (*Balaenoptera musculus*), sei whales (*Balaenoptera borealis*), North Pacific right whales (*Eubalaena japonica*), Hawaiian monk seals (*Neomonachus schauinslandi*), and Hawaiian monk seal critical habitat. Detailed information about the biology, habitat, and conservation status of sea turtles can be found in their recovery plans and other sources at <http://www.nmfs.noaa.gov/pr/species/turtles/>. The same can be found for Hawaiian monk seals and cetaceans at <http://www.nmfs.noaa.gov/pr/species/mammals/>.

Critical Habitat: In designated areas of the Northwestern Hawaiian Islands, critical habitat for Hawaiian monk seals includes: all beach areas, sand spits and islets, including all beach crest vegetation to its deepest extent inland, lagoon waters, inner reef waters, and including marine habitat through the water's

edge, including the seafloor and all subsurface waters and marine habitat within 10 m of the seafloor, out to the 200-m depth contour line (relative to mean lower low water).

Detailed information on monk seal critical habitat can be found at [http://www.fpir.noaa.gov/PRD/prd\\_critical\\_habitat.html](http://www.fpir.noaa.gov/PRD/prd_critical_habitat.html).

Analysis of Effects: In order to determine that a proposed action is not likely to adversely affect listed species, NMFS must find that the effects of the proposed action are expected to be insignificant, discountable, or beneficial as defined in the joint USFWS-NMFS Endangered Species Consultation Handbook: (1) insignificant effects relate to the size of the impact and should never reach the scale where take occurs; (2) discountable effects are those that are extremely unlikely to occur; and (3) beneficial effects are positive effects without any adverse effects (USFWS & NMFS 1998). This standard, as well as consideration of the probable duration, frequency, and severity of potential interactions, was applied during the analysis of effects of the proposed action on ESA-listed marine species, as is described in detail in the USFWS consultation request.

To minimize the likelihood of interactions with listed species, the USFWS would abide by the following Monument Best Management Practices (BMPs) while conducting the proposed activities: Boat Operations and Diving Activities, and Marine Wildlife Viewing Guidelines; and adhere to the following protocols:

- If there is a protected species in the area prior to performing any component of the permitted activity, that activity should not commence until the animal(s) voluntarily departs the area; if the protected species is in the area when that activity is already underway, that activity should cease until the animal voluntarily departs the area.
- All project staff would be informed of the potential presence of listed species and be given species information by the biological monitor. All personnel are required to go through orientation upon arrival at Midway Atoll or immediately the next day in the case of an unusually late arrival.
- A biological monitor would be on-site during all work activities and would conduct pre-work survey to determine the presence of seals, turtles, seabirds, and cetaceans, work would not commence until all seals and turtles have left the area.
- Construction materials or sediments should not be stockpiled in the marine environment.
- Construction-related materials should be placed or stored in ways to avoid or minimize disturbance to marine resources.
- All construction-related materials and equipment to be placed in the water should be cleaned of pollutants prior to use. When in service, if pollutants are found to be leaking from any equipment, that piece of equipment should be removed from service until the cause of the leak has been fixed.

In addition, the USFWS has proposed to institute specific BMPs for each of the project-related activities as listed below:

#### *Construction Material Acquisition & Transport*

Due to the remote location and lack of local resources, construction materials would be brought to the Refuge from existing quarries on the Pacific Coast, Alaska and/or Hawaii. As part of the proposed action, construction materials may be brought to the island well in advance of proposed repair actions to ensure that materials are on hand when needed.

Shipments to the Refuge for the project would follow all pertinent Monument BMPs. Barges and auxiliary vessels would stage in Honolulu, HI to undergo required cleaning and eradication to prevent transport of invasive species. All vessels would comply with vessel monitoring system protocols. Additional BMPs associated with the transport of the materials needed for the repairs would include:

- Contractor would source armor rocks directly from a quarry that is free from insects and seeds. If this is not possible, the armor rock would be pressure washed on a concrete surface prior to loading them onto the barges.
- Contractor would limit the amount of time that rocks are stored before being shipped. Contractor would ensure that materials, rocks, aggregate, etc. are packed and stored on clean concrete/asphalt.
- Contractor would be required to develop and implement a program to insure that non-native species have been eradicated from imported materials prior to offloading at the refuge.
- Prior to any ship or barge entering the Refuge, the hull must be inspected for fouling marine organisms by the Bishop Museum scientist in Honolulu. Any vessel found to have a fouled hull would be required to have the entire hull cleared. Re-inspection of the cleaned hull by Bishop Museum scientist would be required before the barge or ship is allowed to enter the Refuge.
- Shipping containers must have a rat station inside with a baited sticky trap. Cargo inside containers shall be fumigated with a bug bomb. Vessels must be inspected for rats and have a “rat-free certification.”
- Vessels in transit would remain at least 100 yards from humpback whales, and at least 50 yards from other marine mammals (dolphins, other whale species, and Hawaiian monk seals).

### *Staging*

Materials would be offloaded from the barge by excavator or front-end loader and moved by truck to a designated stockpile area near the work site via routes specified by Refuge staff. All stockpile areas would be on existing paved surfaces. All haul routes would be on existing roads, runway access routes, or previously cleared/disturbed areas along the seawall. Construction materials may require storage on Sand Island for several weeks or even months prior to construction, depending on construction windows established to protect birds and on the logistics of getting materials and crews to the island. If barged early, the rock and other construction materials would be loaded onto trucks and driven to a temporary stockpile area void of any environmental concerns. Additional BMPs associated with staging of materials for the repairs would include:

- The contractor must install rat guards on vessel and barge lines at Midway Island to prevent rodents from reaching land. Refuge personnel would place rodent bait stations and traps containing rodenticide on the boat and barge decks, around the dock, and in areas where shipping containers are stored on the island.
- Prior to construction, any sensitive areas near proposed construction sites would be clearly marked to contain disturbance areas to the minimum amount needed to safely construct needed repairs to the seawall.

### *Pre-Construction*

Repairs to the seawall would be made using conventional construction equipment such as backhoe loaders and excavators. Current plans are to utilize equipment already on the island; however, additional equipment may need to be barged in for larger repairs. Equipment would access individual repair sites via the area upland of the existing seawall. There is sufficient access upland of the seawall, and no road construction or tree removal is proposed, although access routes may need to be cleared, stabilized, or

repaired. Any such repairs would be described in the project-specific work plans the USFWS would prepare for each annual repair cycle. Additional BMPs associated with the pre-construction activities would include:

- Prior to specific repairs, surveys would be performed of all areas contained within the proposed project area for the presence/absence of corals, seals, turtles and marine mammals, as well as habitat suitability for these species (for potential relocation). Survey results would be considered valid for three years.
- The site would be assessed to ensure that no new conditions have arisen and all appropriate pre-work mitigation measures have been implemented.
- Relocate, prior to the start of construction, the coral and macroinvertebrates present within the project area that would be damaged by construction (both in the direct fill footprint and adjacent to this, if appropriate) to an area that would not be disturbed (i.e., not alongside unrepaired sections of the seawall or other areas likely to be disturbed at some point in the future).
- All project staff would be informed of the potential presence of listed species and be given species information by the biological monitor. All personnel are required to go through orientation upon arrival at Midway Atoll or immediately the next day in the case of an unusually late arrival. All personnel would receive the Monument Pre-Access Briefings, and the Midway Atoll National Wildlife Refuge and Battle of Midway National Memorial Briefings before commencing work on the project.
- A contingency plan to control the accidental spills of petroleum products at the construction site shall be developed. Absorbent pads and containment booms would be stored on-site to facilitate the cleanup of petroleum spills.
- A contingency plan to respond to previously unknown hazardous materials discovered during construction shall be developed. The plan shall include specific chain of communication and steps to contain and/or remove and dispose of hazardous materials.

### *Construction*

Sections of the seawall along the coastline on the south side of the island that fronts portions of the Refuge and run along the runway at Henderson Airfield would be repaired on an as needed basis, with priority given to ensuring continuing operation of the runway. Repairs would result in the replacement of failed sections of the current sheet pile with a rock wall revetment consisting of three layers of various sized stones. Additional BMPs associated with the construction-related activities would include:

- Prior to and during work, designated personnel would monitor the site to ensure that mitigation measures are followed and to observe for the presence of protected species.
- All manmade construction debris would be collected and not allowed to enter waters of the U.S.
- All debris removed from the seawall construction site would be disposed of at an approved upland site.
- If debris or spill material accidentally enters the waterway, immediate actions would be taken to remove the material and proper entities notified.
- Care would be taken in all work to prevent debris, oils, and grease from entering the water.
- Armor rocks and fill materials shall be placed in a manner that would not pose an entrapment hazard to fish and wildlife.
- A biological monitor would be on-site during all work activities and would conduct pre-work surveys to determine the presence of species of concern in the seawall repair area. Work would not commence until the monitor confirms to the construction foreman (or designated representative) that all sensitive species have left the area. The biological monitor would have the

authority and responsibility to shut down disturbance-causing construction activities if a sensitive species were present within 150 feet of the seawall repair area.

- If listed species approach the seawall repair area after work has already begun, all work would cease within 150 feet of the animal. Additionally, any potentially disruptive activities within the area (further than 150 feet) would also cease until the animal leaves the area of its own volition.
- Turbidity and siltation from the removal of existing sheet piles would be minimized and confined to the immediate vicinity of the removal and discharge through the use of effective silt containment devices (e.g., silt curtains) and the curtailment of debris removal during adverse sea conditions.
- Fueling of construction related equipment shall occur away from the seawall construction site at a designated location with the ability to handle an accidental spill.
- Contractor would follow protocol in the existing Spill Prevention, Control and Countermeasures Plan for USFWS, prepared in 2004 and last updated in 2009 (GeoEngineers, Inc).
- Avoid construction during coral spawning season from May-September, specifically avoiding the week before and the week after the full moon during these months.
- At the end of each day of work at the seawall repair site, the biological monitor would inspect the area to determine if it may pose a hazard for seals or turtles to be trapped and the monitor would direct project staff to alter armor rocks to ensure no entrapment can occur.

#### *Post-Construction*

Following each repair, remains of the failed seawall and other obstructing debris would be transported to an existing disposal site on-island or barged off-island to an approved disposal location. Some rock, rubble, and/or sand currently available on-site may be reused as backfill. Demobilization would involve additional truck traffic to remove debris from the seawall area. Any crew or equipment brought to the island solely to support the seawall repair would demobilize via typical Refuge protocols. Additional BMPs associated with the post-construction activities would include:

- Information on the species, size and the total amount of any corals impacted from the repairs would be provided to NMFS within 30 days of the completion of repairs. Post-construction marine biological surveys would be conducted to determine the actual project-related impact and the need for compensatory Environmental Measures. Lost ecological function associated with any project impact must be mitigated through mutually agreed conditions.
- A post-construction environmental compliance inspection would be completed that identifies any environmental concerns or lessons learned that could be applied to subsequent repairs.

Based on the extent of the proposed action, the USFWS has identified the following potential stressors for protected species from the planned seawall repairs and mobilization efforts:

1. Temporary disturbance from human activities;
2. Injury from construction activities;
3. Potential for ship strikes;
4. Exposure to debris or contaminants;
5. Risk of entrapment; and
6. Effects to designated Hawaiian monk seal critical habitat.

#### *Temporary disturbance from human activities*

The staging of the seawall materials would require a number of USFWS personnel and contractors, the use of front-end loaders, and dump trucks to take the materials off the barge and move it to the staging

area. The noise that would be generated and the extra activity at the dock may result in listed species avoiding the beaches and the nearshore waters during the period of time the seawall materials are moved off the barge into the staging area, but this action would be of a limited duration and would take place outside of any nesting or rearing times. Repairs to the rock wall would be made on an as needed basis to ensure the safety of the runway or to protect Refuge land, but due to budget limitations, repairs would be made to small sections (100 – 200 feet) at a time. Although incremental repairs would result in more frequent mobilization of materials and equipment, each action would require a matter of weeks which would result in temporary disturbances, with possibly long intervals between repairs, which would reduce the disturbance to the protected species near Midway Atoll. Based on the proposed timing of any construction activities, the penchant for most marine species to avoid areas of human activities, and adherence to the Monument permit conditions and the BMPs listed above; the USFWS has determined that the disturbance to listed species from this proposed action would be insignificant.

#### *Injury from construction activity*

There is the risk of injury to, or death of, an individual from a listed species during the actual construction of the rock wall revetment. The greatest risk would be from equipment to be used to build the rock wall, or from placement of the larger rocks that would make up the wall. Injuries and deaths could be in the form of crushing of limbs or carapaces by being run over by construction equipment; or by being caught under construction equipment buckets or arms, or under rock, during the effort to build the rock wall. Based on the limited number of individuals from listed species that frequent the construction area and the widely scattered nature of these species in the waters around Midway, the penchant for listed species to avoid areas of human activity, and the strict adherence to the BMPs listed above, which include having resource monitors on site during construction activities, and the requirement to delay the start of construction activities, or to halt construction work, when individuals from listed species are in proximity to the construction zone; the USFWS has determined the risk of injury or death of an individual of a listed species from construction activities would be discountable.

#### *Potential for ship strikes*

There is the risk of an individual from a listed species being struck by the barge or tug boat during the transit of the materials from the west coast to Hawaii, from Hawaii to Midway Atoll and back to Hawaii, and within Midway Atoll lagoon. Vessel collisions with marine mammals and sea turtles are known to occur, and the severity of the injury to the individual struck depends largely on the speed of the vessel involved, and the part of the body of the individual that is struck. Hazel *et al.* (2007) demonstrated that greater vessel speed increased the probability that sea turtles would fail to flee from an approaching vessel. Coincidentally, vessel operators have more difficulty detecting sea turtles at higher speeds, especially during choppy seas or low-visibility conditions. Vanderlann and Taggart (2007) report that the severity of injury to large whales is directly related to speed. They found that the probability of lethal injury increased from 21 % for vessels traveling at 8.6 knots, to over 79 % for vessels moving at 15 knots or more. Because of the load the barge would be carrying, the speed of the tug and barge would be considerably less than 8 knots, and more likely be 4 - 6 knots, depending on sea and wind conditions.

Based on adherence to the Monument boating BMPs, the expectation that listed species are widely scattered throughout the waters of the Monument, and the penchant for listed species to avoid areas where vessels are operating; the USFWS has determined that the risk of a ship strike on a protected marine species would be discountable.

### *Risk of entrapment*

There is the risk that a protected species could become trapped behind barriers set-up to prevent debris or contaminants from getting outside of the construction area, or those designed to prevent protected species from accessing the construction area. All construction-related activities would be done so as to minimize the entrapment hazard. All barriers or booms would be used only when necessary and would be removed immediately upon completion of the activity they were installed for. The presence of monitors on site during construction activities would ensure that the measures used to prevent entrapment are in place and functioning properly. Based on the fact that listed species in the area are limited in number and widely distributed throughout the area where construction activities would take place, and adherence to the BMPs listed above, which includes having resource monitors on site to watch for listed species and halting all construction if a listed species is in proximity to the work; the USFWS has determined that the risk of entrapment to listed species from this proposed action would be discountable.

The removal of the sheet piles currently in place, the materials used as fill behind the sheet pile, and the materials to be used in the construction of the seawall could make their way into the marine environment and place listed species at risk of coming in contact with debris. There is also the risk of listed-species being exposed to fuel or other contaminants from an accidental spill during fueling equipment or an accident that results in machinery falling into the marine environment or leaking fuel or contaminants. Barriers and booms would be installed during construction activities which would contain any debris or contaminants close to the construction zone. All fueling would be done in areas that would prevent spills into the marine environment, and response materials would be kept on site and within easy access to respond to an accidental spill of any possible contaminant. Based on the limited number of individuals from any listed species in waters around the construction area and the widely scattered nature of those individuals, the limited duration of any single repair action, and the adherence to the BMPs listed above, which includes installing barriers that would prevent debris or contaminants from getting outside the construction area: the USFWS has determined that the risk of listed species being exposed to debris or contaminants would be discountable.

### *Effects to Hawaiian monk seal critical habitat*

Because the current sheet pile seawall is a manmade hardened structure, the marine areas adjacent to the Henderson Airfield runway where the rock wall revetment would be constructed is not designated as monk seal critical habitat. But, monk seal critical habitat has been designated in the lagoon and beach areas of Midway Atoll where activities associated with the transport and staging of the materials and equipment for the seawall repairs would occur. Potential impacts from transport of seawall materials and staging would include the risk of a vessel grounding, rock or construction equipment being dropped during offloading, and a contaminant spill. These potential impacts would be reduced or eliminated due to the general and special conditions imposed on the proposed action. In accordance with the permit, under which the proposed action would be authorized, contractors and partner agency representatives would be required to follow a set of BMPs to minimize any potential damage to bottom habitat or the water column to the greatest extent possible. Based on compliance with the Monument permit conditions and other BMPs as described above; the USFWS has determined that the impacts to monk seal critical habitat from the transport, and staging, of materials and construction equipment would be insignificant.

Considering the information and assessments presented in the USFWS consultation request, and in the best scientific information available about the biology and expected behaviors of the ESA-listed marine species considered in this consultation; NMFS agrees that: 1) the list of ESA-listed species and critical habitats potentially exposed to the effects of the action is correct, 2) the suite of identified stressors is comprehensive, and 3) the assessment of exposure risk and significance of exposure to those stressors is accurate.

Conclusion: NMFS concurs with the USFWS' determination that the transport of materials (stone and equipment) to, and the staging of those materials on Midway Atoll which would be used for repairs to the seawall that protects the Henderson Airfield runway, and those actions associated with actual repairs to the seawall, are NLAA for the Central North Pacific green sea turtle Distinct Population Segment (DPS), hawksbill sea turtles, leatherback sea turtles, olive ridley sea turtles, North Pacific loggerhead sea turtles, Hawaiian monk seals, Main Hawaiian Islands false killer whale DPS, blue whales, fin whales, sei whales, sperm whales, and North Pacific right whales.

Under this programmatic, the USFWS is required to contact the PIRO Protected Resources Division by e-mail in advance of each repair action to seek our concurrence with your determination that the proposed repairs fall within the scope of the actions covered under this original consultation. In order to facilitate our concurrence, the USFWS must provide sufficient information on the nature and the extent of the proposed repairs for our office to determine that the action to be taken is comparable to those covered under the programmatic. PIRO recommends that the USFWS coordinate early with our office on each planned repair to avoid unnecessary delays or commitment of resources which may result in unintended costs or construction problems. The information provided for each proposed repair must be sufficient to show that the repairs and their potential effects on listed marine species are not substantially different from those described here.

ESA Consultation must be reinitiated if: 1) a take occurs; 2) new information reveals effects of the action that may affect listed species or designated critical habitat in a manner or to an extent not previously considered; 3) the identified action is subsequently modified in a manner causing effects to listed species or designated critical habitat not previously considered; or 4) a new species is listed or critical habitat designated that may be affected by the identified action.

If you have further questions please contact Richard Hall on my staff at (808) 725-5018 or at richard.hall@noaa.gov. Thank you for working with NMFS to protect our nation's living marine resources.

Sincerely,



Ann M. Garrett  
Assistant Regional Administrator  
Protected Resources Division

cc: Mark Harris, USFWS  
Gordon Wong, FAA  
Brenna Hughes, PND Engineers  
Justin Rivera, ONMS/PMNM

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