

11. Appendices

11.1. Appendix A: Protected Species

Common Name	Hawaiian Name	Latin Name	ESA		MMPA	MBTA
			Endangered	Threatened		
Hawaiian monk seal	'Īlioĵoloikauaua	<i>Neomonachus schauinslandi</i>	✓		✓	
Blue whale	koholā	<i>Balaenoptera musculus</i>	✓		✓	
Fin whale	koholā	<i>Balaenoptera physalus</i>	✓		✓	
Humpback whale	koholā kuapi'o	<i>Megaptera novaeangliae</i>	✓		✓	
Sei whale	koholā	<i>Balaenoptera borealis</i>	✓		✓	
Right whale	koholā	<i>Eubalaena japonica</i>	✓		✓	
Insular false killer whale	koholā	<i>Pseudorca crassidens</i>	✓		✓	
Sperm whale	palaoa	<i>Stenella longirostris</i>	✓		✓	
Hawksbill turtle	honu'ea	<i>Eretmochelys imbricata</i>	✓			
Leatherback turtle	honu	<i>Dermochelys coriacea</i>	✓			
Olive Ridley turtle	honu	<i>Lepidochelys Belolivacea</i>	✓			
Green sea turtle	honu	<i>Chelonia mydas</i>		✓		
Loggerhead Turtle	honu	<i>Caretta caretta</i>		✓		
Bryde's whale	koholā	<i>Balaenoptera edeni</i>			✓	
Minke whale	koholā	<i>Balaenoptera acutorostrata</i>			✓	
Blainsville beaked whale	koholā	<i>Mesoplodon densirostris</i>			✓	
Common bottlenose dolphin	nai'a	<i>Tursiops truncatus</i>			✓	
Cuvier's beaked whale	koholā	<i>Ziphius cavirostris</i>			✓	
Fraser's dolphin	nai'a	<i>Lagenodelphis hosei</i>)			✓	
Longman's beaked whale	koholā	<i>Indopacetus pacificus</i>			✓	
Melon-headed whale	koholā	<i>Peponocephala electra</i>			✓	
Pygmy sperm whale	palaoa	<i>Kogia breviceps</i>			✓	
Dwarf sperm whale	palaoa	<i>Kogia sima</i>			✓	
Risso's dolphin	nai'a	<i>Grampus griseus</i>			✓	
Rough-toothed dolphin	nai'a	<i>Steno bredanensis</i>			✓	
Short-finned pilot whale	nai'a	<i>Globicephala macrorhynchus</i>			✓	
Spinner dolphin	nai'a	<i>Stenella longirostris</i>			✓	
Pantropical spotted dolphin	nai'a	<i>Stenella attenuata</i>			✓	
Pygmy killer whale	koholā	<i>Feresa attenuata</i>			✓	
Killer whale	koholā	<i>Orcinus orcus</i>			✓	
Striped dolphin	nai'a	<i>Stenella coeruleoalba</i>			✓	
-	'Akeke'e (PE)	<i>Loxops caeruleirostris</i>			✓	✓
Hawai'i 'Akepa	'Ākepa	<i>Loxops coccineus coccineus</i>	✓			✓
Maui 'Akepa	'Akepa	<i>Loxops coccineus ochraceus</i>	✓			
-	Greater 'Akiāloa	<i>Hemignathus ellisianus</i>	✓			
-	'Akiāpōlā'au	<i>Hemignathus munroi</i>	✓			

Common Name	Hawaiian Name	Latin Name	ESA			
			Endangered	Threatened	MMPA	MBTA
-	Kaua'i 'Akialoa	<i>Hemignathus procerus</i>	✓			
Kaua'i/Baird's creeper	'Akikiki	<i>Oreomystis bairdi</i>	✓			
Crested Honeycreeper	'Ākohekohe	<i>Palmeria dolei</i>	✓			✓
Maui/Lāna'i Creeper	Maui 'Alauahio	<i>Paroreomyza montana</i>				✓
O'ahu Creeper	O'ahu 'Alauahio	<i>Paroreomyza maculata</i>	✓			✓
Common 'Amakihi	Hawai'i 'Amakihi	<i>Hemignathus virens</i>				✓
-	Kaua'i 'Amakihi	<i>Hemignathus Kaua'iensis</i>				✓
-	O'ahu 'Amakihi	<i>Hemignathus flavus</i>				✓
Lesser 'Amakihi	'Anianiau	<i>Magumma parva</i>				✓
-	'Apapane	<i>Himatione sanguinea</i>				✓
-	Hawai'i Creeper	<i>Oreomystis mana</i>	✓			✓
-	Laysan Finch	<i>Telespiza cantans</i>	✓			✓
-	Nihoa Finch	<i>Telespiza ultima</i>	✓			✓
-	'I'iwi	<i>Vestiaria coccinea</i>				✓
Moloka'i Creeper	Kākāwahie	<i>Paroreomyza flammea</i>	✓			✓
- (Nihoa Reed-warbler)	Nihoa Millerbird	<i>Acrocephalus familiaris kingi</i>	✓		✓	✓
-	Maui Nukupu'u	<i>Hemignathus lucidus affinus</i>	✓			✓
-	Kaua'i Nukupu'u	<i>Hemignathus lucidus hanapepe</i>	✓			
-	'Ō'ū	<i>Psittirostra psittacea</i>	✓			✓
-	Palila	<i>Loxioides bailleui</i>	✓			✓
Maui Parrotbill		<i>Pseudonestor xanthophrys</i>	✓			✓
Black-faced Honeycreeper	Po'ouli	<i>Melamprosops phaeosoma</i>	✓			✓
Chinese Goshawk or Chinese Sparrowhawk	Gray Frog-Hawk	<i>Accipiter soloensis</i>				
-	Stejneger's Petrel	<i>Pterodroma longirostris</i>				
-	Greater Crested Tern	<i>Thalasseus bergii</i>				
Hawaiian Stilt	Ae'o	<i>Himantopus mexicanus knudseni</i>	✓			
Laysan Duck		<i>Anas laysanensis</i>	✓			
Hawaiian Duck	Koloa Maoli	<i>Anas wyvilliana</i>	✓			
Hawaiian Goose	nēnē	<i>Branta sandvicensis</i>	✓			
Hawaiian Hawk	'Io	<i>Buteo solitarius</i>	✓			
-	O'ahu 'Elepaio	<i>Chasiempus sandwichensis ibidis</i>	✓			
Hawaiian Crow	'Alalā	<i>Corvus Hawaiiensis</i>	✓			
Hawaiian Coot	'Alae ke'oke'o	<i>Fulica alai</i>	✓			
Hawaiian gallinule	'Alae 'ula	<i>Gallinula chloropus sandvicensis</i>	✓			
Kaua'i 'ō'ō	'ō'ō 'ā'ā	<i>Moho braccatus</i>	✓			
Moloka'i Thrush	Oloma'ō	<i>Myadestes Lāna'iensis ruxha</i>	✓			
Large Kaua'i Thrush	Kāma'ō	<i>Myadestes myadestinus</i>	✓			
Small Kaua'i Thrush	Puaiohi	<i>Myadestes palmeri</i>	✓			
Short-tailed Albatross	-	<i>Phoebastria albatrus</i>	✓			
Dark-rumped/Hawaiian Petrel	'Ua'u	<i>Pterodroma phaeopygia sandwichensis</i>	✓			
Newell's Shearwater	-	<i>Puffinus auricularis</i>		✓		

11.2. Appendix B: Military Activities

Military Activities

The following Department of Defense (DoD) activities and other federal agency activities supporting DoD activities or supported by DoD, occur within or adjacent to the Hawaiian Islands Humpback Whale National Marine Sanctuary. These classes of activities near Hawai‘i are conducted by all the DoD components of the United States, and during combined training and operations, by military units from cooperating foreign nations or the State of Hawai‘i Department of Defense/National Guard.

Near-Shore Activities ¹	Open Ocean Activities ¹
Surface Activities	
<ul style="list-style-type: none"> • Pierside testing and maintenance. • Dry dock activities at Pearl Harbor. • Harbor movements by ships, submarines, boats and auxiliary craft. • Anchoring and mooring to a buoy or pier. • Engineering, navigation, seamanship and general readiness-related activities. • Transit between harbors and operating areas (OPAREAS). • Salvage and towing activities. • Anti-submarine warfare (ASW) activities include but are not limited to use of: <ul style="list-style-type: none"> ○ Mobile and stationary targets ○ Active / passive sonar ○ Towed arrays and towed counter-measure devices ○ Air- and surface-launched sonobuoys, dye markers, smoke floats and sensors ○ Air, surface and subsurface launch of countermeasure devices ○ Air, surface and subsurface launch of torpedoes. ○ Evasive maneuvers • Amphibious warfare activities include but are not limited to: <ul style="list-style-type: none"> ○ Ship ballasting ○ Landing craft and small craft activities (operating in displacement and non-displacement modes) including beaching ○ Aircraft activities ○ Ship-to-shore logistics 	<ul style="list-style-type: none"> • Transit between harbors and operating areas (OPAREAS). • Engineering, navigation, seamanship and general readiness-related activities. • Salvage and towing activities. • Anti-submarine warfare (ASW) activities include but are not limited to use of: <ul style="list-style-type: none"> ○ Mobile and stationary targets ○ Active / passive sonar ○ Towed arrays and towed counter-measure devices ○ Air- and surface-launched sonobuoys, dye markers, smoke floats and sensors ○ Air, surface and subsurface launch of countermeasure devices ○ Air, surface and subsurface launch of torpedoes. ○ Evasive maneuvers • Amphibious warfare activities include but are not limited to: <ul style="list-style-type: none"> ○ Ship ballasting ○ Landing craft and small craft activities (operating in displacement and non-displacement modes) ○ Aircraft activities • Anti-surface warfare and naval surface fire support activities include but are not limited to: <ul style="list-style-type: none"> ○ Mobile and fixed targets including environmentally remediated hulks ○ Missiles, rockets, guns, small arms, kinetic energy weapon (e.g., railgun) tests and countermeasure devices stationed at sea and ashore ○ Evasive maneuvers

Near-Shore Activities ¹	Open Ocean Activities ¹
Surface Activities	
<ul style="list-style-type: none"> • Anti-surface warfare and naval surface fire support activities include but are not limited to: <ul style="list-style-type: none"> ○ Mobile and fixed targets ○ Missiles, rockets, guns, small arms, kinetic & directed energy weapon (e.g., railgun) tests and countermeasure devices ○ Evasive maneuvers • Expeditionary warfare activities against ships and small boats. • Expeditionary warfare activities involving swimmers and small boats. • Explosive ordnance disposal (EOD) activities (use of explosives for demolition). • Mine warfare and mine countermeasure (MCM) activities include but are not limited to use of: <ul style="list-style-type: none"> ○ Mine shapes ○ Mine detection using active hull and towed sonar ○ Lasers and electromagnetic systems ○ Marine mammal systems ○ Mine sweeping and mine neutralization vehicle ○ Explosives for demolition. • Equipment and personnel drops from rotary and fixed-wing aircraft. • Surveys from ships and associated small craft using towed and hull-mounted sensors/sonar. • Surveys conducted by low-flying rotary and fixed-wing aircraft. 	<ul style="list-style-type: none"> • Air and missile defense activities include but are not limited to use of: <ul style="list-style-type: none"> ○ Airborne targets both sub/supersonic ○ Missiles, guns, and countermeasure devices ○ Evasive maneuvers ○ Launch of target missiles from mobile platforms ○ Launch of Interceptor missiles from Navy ships ○ Ship-based radar and tracking activities • Replenishment activities to vessels underway (transfer of supplies and fuel via connected wire and/or transfer of supplies by low-flying rotary aircraft). • Surveys from ships and associated small craft using towed and hull-mounted sensors/sonar • Explosive ordnance disposal (EOD) activities (use of explosives for demolition). • Equipment and personnel drops from rotary and fixed-wing aircraft

¹Activities may involve the use of unmanned vehicles.

Near-Shore Activities	Open Ocean Activities
Sub-Surface Activities	
<ul style="list-style-type: none"> • Transit to and from ports and OPAREAs. • Engineering, navigation, seamanship and general warfare-related activities. • Post maintenance shallow water dives. • ASW and anti-ship activities include but are not limited to use of: <ul style="list-style-type: none"> ○ Mobile and stationary targets ○ Active and passive sonar ○ Towed arrays ○ Torpedoes and countermeasures ○ Evasive maneuvers ○ Flares • Mine warfare activities (submarines traverse a field of bottom and moored non-explosive practice mines using sonar). • Mine warfare and mine counter-measure (MCM) activities include but are not limited to use of: <ul style="list-style-type: none"> ○ Mine shapes ○ Active hull and towed sonar ○ Lasers and electromagnetic systems ○ Marine mammal systems ○ Mine sweeping and mine neutralization vehicles ○ Launch of inert mines • ASW target service for ships and aircraft. • Expeditionary warfare activities involving swimmers operating from submerged submarines. • Unmanned underwater vehicle activities 	<ul style="list-style-type: none"> • Transit at a variety of depths. • Engineering, navigation, seamanship and general warfare-related activities. • Deep-water dives and surfacing. • ASW and anti-submarine/ship warfare activities include but are not limited to use of: <ul style="list-style-type: none"> ○ Mobile and stationary targets ○ Active and passive sonar ○ Towed arrays ○ Torpedoes and countermeasures ○ Evasive maneuvers ○ Flares • Unmanned underwater vehicle activities.

Near-Shore Activities	Open Ocean Activities
Air Activities	
<ul style="list-style-type: none"> • Landings and take-offs by aircraft, target drones and unmanned vehicles from shore. • Landings, take-offs and training flights from ships. • Training flights and transfers of personnel and equipment by aircraft. • Low-flying tactical aircraft flights (single and multi-ship, day, night unaided and night vision goggles) often involving terrain following and Nap Of the Earth (NOE) flight over or near the island and shorelines, as well as flight in published FAA transition zone below controlled airspace and flight traffic patterns over water. • Air assaults by aircraft from amphibious ships including low level. • Anti-submarine aircraft activities include but are not limited to the use of: <ul style="list-style-type: none"> ○ Mobile and stationary targets ○ Sonobuoys ○ Smoke floats ○ Torpedoes ○ Dipping sonars • Bombing, missile and/or gunnery firing activities by aircraft using surface target, Ka'ula Islet or a land-based range. • Insertion/extraction of personnel from aircraft into/out of the water. • Unmanned aerial system activities. 	<ul style="list-style-type: none"> • Landings, take-offs and flights from ships. • Air combat maneuvering. • Live missile firings by aircraft versus targets. • Live bombing, gunnery and missile firings versus surface targets. • Training flights and transfers of personnel and equipment by aircraft. • Low-flying tactical aircraft (single and multi-ship day, night unaided and night vision goggles) over-flights between island operating areas. • Air to air warfare activities involving the actual firing of guns and missiles at target craft and the launch of countermeasures and flares. • Air assaults, including low-level, by aircraft from amphibious ships. • Anti-submarine aircraft activities include but are not limited to use of: <ul style="list-style-type: none"> ○ Mobile and stationary targets ○ Sonobuoys ○ Smoke floats ○ Torpedoes ○ Dipping sonars • Aircraft conducting mine warfare detection and clearance activities with towed systems. • Unmanned aerial system activities. • Insertion/extraction of personnel from aircraft into/out of the water. • Missile Defense Test Activities <ul style="list-style-type: none"> ○ Launch of airborne target missiles ○ Intercept of target missiles with associated booster separation and drop and intercept debris ○ Reservation of temporary airspace during test activities ○ Radar and missile tracking activities from aircraft

Military Training Activities by Location

Department of Defense military training and test activities and other federal agency activities supporting DoD activities or supported by DoD occur throughout the Hawaiian Islands Humpback Whale National Marine Sanctuary. The following highlights of some the many capabilities mentioned previously. In Penguin Bank, submarines conduct post-overhaul shallow-water dives and high-speed maneuvers. The area is also used for shallow-water anti-submarine warfare (ASW) training and tests. The waters adjacent to Maui, Moloka'i, and Lāna'i are important training areas for Navy ships homeported in Pearl Harbor. The channel between Maui, Lāna'i and Moloka'i is extensively used for the biennial RIMPAC exercise as a mine counter measure (M)CM exercise area as well as for shallow-water ASW. Port visits are frequently conducted in Hilo, Hawai'i and Lahaina, Maui. Salvage ship and diving training are also frequently conducted in the area. The U.S. Naval facility Pacific Missile Range Facility (PMRF)/Barking Sands is located on western side of Kaua'i. Although it is not located directly adjacent to the sanctuary, active sonar is used frequently; target drones are launched from PMRF through coastal airspace and helicopter operations are also conducted frequently in the nearshore area. A range of vessel and aircraft activities occur on and around O'ahu out of Joint Base Pearl Harbor-Hickam, Bellows Air Force Station, Marine Corps Base Hawaii (Kaneohe Bay), and Camp Smith Training Facility. Training and testing activities also occur within the sanctuary adjacent to Hawaii Island. Army and USMC helicopter operations regularly occur over the island in support of the Pohakuloa Training Area (PTA) located in the center of the Island. Navy and Army landing craft frequently on/offload supplies and equipment at Kawaihae Bay in support of military training at PTA. The Kingfisher Underwater Training Area off the southeast coast of Ni'ihau between the water depths of 200-350 ft. in flat areas without coral cover. Kingfisher is a simulated underwater minefield used for training with active sonar. Although military activities may occur anywhere within the Hawaii Range Complex, the following table summarizes the primary military activities that overlap specific areas of the sanctuary and were previously identified in the activity tables preceding this section.

Military Activities by Location	
Military Activity	Description
Penguin Bank	
Submarines Post-Overhaul Shallow-Water Dives and High-speed Maneuvers	All submarines completing any major repair work are required to conduct initial submerged testing in shallow water. It is necessary to conduct initial testing close to shipyard facilities in case an unscheduled return to port is required for repairs. Penguin Bank is the only shallow water in the Hawaii Range Complex suitable for these required tests.
Shallow-Water ASW Activities	Exercises, of 2-5 days duration, involving surface ships and submarines using active sonar transmissions, sonobuoys, smoke floats, expendable sensors and submarine-launched inert (non-explosive) torpedoes. Activities are conducted in Penguin Bank because of the unique characteristics of the shallow water.
Submarine Mine Warfare Training	Submarines practice deploying inert mine shapes, which are later recovered by small craft.
Maui Nui Area (Maui, Moloka'i, and Lāna'i)	
Shallow Water ASW Activities	Activities take place inside 100-fathom isobaths surrounding Maui, Moloka'i, Kaho'olawe, and Lāna'i. These include use of active sonar transmissions, sonobuoys, smoke floats, expendable bathythermographs and inert training torpedoes.
MCM Activities	Activities include the use of bottom and moored inert mines, active sonar, towed mine sweeping device, and surface ships.
Flight Activities	Flight activities occur around the Hawaiian Islands for day, night, unaided, and night vision goggles (NVG) training. Flights are conducted within FAA prescribed altitudes/airspeeds at day/night for transit between islands.
Submarine Mine Warfare Training	Submarines practice deploying inert mine shapes on the ocean floor, which are later recovered by small craft.
Hawaiian Area Tracking System (HATS)	HATS is located southeast of Lāna'i to provide a passive acoustic range for shallow water tracking of non-explosive torpedoes.
Kaho'olawe Shallow Water Minefield	Simulated underwater minefield where active sonar systems are used to detect, locate, and classify mines. It is installed west of the Kaho'olawe coast. Naval vessels navigate in and around the area.
Kaua'i	
Aircraft Operations	Aircraft deploy inert weapons, including mines and missiles against submarines and mobile targets. Other exercise material may also be discharged including non-retrievable smoke markers and sonobuoys which may emit active sonar, and retrievable torpedoes.
Amphibious Exercises	Amphibious exercises involving landing craft, LCAC and AMTRACs are conducted on the beaches at and throughout PMRF.
Area R-3101 Exercises	R-3101 is a fully instrumented range that extends 3 nm seaward from the western coast of Kaua'i. The area is used for missile and gun live firing and aerial target launch and recovery
Submarine Torpedo Activities	Submarines conduct torpedo firing activities using retrievable torpedoes. Submarines traverse through a field of bottom and moored mines, using active sonar to detect and avoid mines. Non-retrievable bathythermographs or other sensors or weapons may be expended.
Missile Defense Testing	Target and Interceptor launches from PMRF with intercepts, booster drop and intercept debris dispersion over open ocean areas.

O'ahu	
Pearl Harbor	Activities within and near Pearl Harbor include transit operations, anchoring, ammunition on/off loads, maintenance, dry-docking, Civilian Port Defense exercises, and pier side activities, which could include high frequency sonar.
Marine Corps Training Area Bellows	USMC and Naval forces use beaches and adjacent waters for amphibious training including landing craft, LCAC, AAV, submarines, associated support craft, small boat landings, and low level helicopter overflights.
MCB Hawaii Kaneohe Bay	Helicopters and fixed wing aircraft overfly coastal waters at low level on approach and takeoff; small boats operate in the harbor. USMC and Naval forces conduct amphibious landings involving one or more amphibious vessel, and any associated watercraft and aircraft.
Area A-311	Army helicopters conduct day/night low level training flights to, in, around, and from tactical training area in O'ahu A-311. Adverse weather often requires aircraft to divert low level (200-500 ft.) seaward of the north shore.
Ni'ihau	
Kingfisher Underwater Training Area	An underwater minefield where active sonar systems and/or Navy marine mammals are used to detect, locate, and classify mines. It is installed 2 miles off Ni 'ihau coast in water depths of 200 to 350 feet in flat areas without coral cover. Naval vessels navigate in and around the area.
Ka'ula Islet	
Strike Warfare	Exercise involves aircraft delivery of inert or non-explosive ordnance against land targets on a portion of the islet, in day or night conditions.

11.3. Appendix C: Proposed Sanctuary Regulations

The following regulations are proposed under Alternatives 1-4 in the DEIS. Regulations in light blue are the current sanctuary-wide humpback whale regulations.

Regulations		Alternative			
Description		1	2	3	4
Approach	Approaching, or causing a vessel or other object to approach, within the Sanctuary, by any means, within 100 yards of any humpback whale except as authorized under the Marine Mammal Protection Act (MMPA), as amended, and the Endangered Species Act (ESA), as amended.	✓			
	(i) Approaching in the Sanctuary, by any means, including by interception (e.g. by placing a vessel or person in the path of an oncoming humpback whale so that the whale surfaces within 100 yards (91.4m) of the vessel or person), within 100 yards (91.4 m) of any humpback whale; (ii) Causing a vessel or other object to approach within 100 yards (91.4 m) of a humpback whale; (iii) Disrupting the normal behavior or prior activity of a whale by any other act or omission. A disruption of normal behavior may be manifested by, among other actions on the part of the whale, a rapid change in direction or speed; escape tactics such as prolonged diving, underwater course changes, underwater exhalation, or evasive swimming patterns; interruptions of breeding, nursing, or resting activities, attempts by a whale to shield a calf from a vessel or human observer by tail swishing or by other protective movement; or the abandonment of a previously frequented area; (iv) Exceptions: This paragraph (1) does not apply to any approach authorized by the National Marine Fisheries Service through a permit issued under 50 C.F.R. Part 222, subpart C, General Permit Procedures or through a similar authorization;		✓	✓	✓
Overflight	Operating an aircraft above the Sanctuary within 1,000 feet of any humpback whale except when in any designated flight corridor for takeoff or landing from an airport or runway or as authorized under the MMPA and the ESA.	✓	✓	✓	✓
Take & Possess	Taking any humpback whale in the Sanctuary except as authorized under the MMPA and ESA.	✓			
	Possessing within the Sanctuary (regardless of where taken) any living or dead humpback whale or part thereof taken in violation of the MMPA or the ESA.	✓			
	Taking or possessing any humpback whales within the Sanctuary except as authorized by the Marine Mammal Protection Act (MMPA), or the Endangered Species Act (ESA);		✓	✓	*
	Taking or possessing any marine mammal, sea turtle, seabird, Endangered Species Act-listed species or Hawai'i Revised Statutes chapter 195D listed species, within or above the Special Sanctuary Management Areas (Penguin Bank, Maui Nui Area), except as authorized by the Marine Mammal Protection Act (MMPA); the Endangered Species Act (ESA); the Migratory Bird Treaty Act (MBTA); the Magnuson Stevens Fishery Conservation and Management Act; or Hawai'i State Law.		✓		

Regulations		Alternative			
		1	2	3	4
	Taking or possessing any marine mammal, sea turtle, seabird, Endangered Species Act-listed species or Hawai'i Revised Statutes chapter 195D listed species, within or above the Special Sanctuary Management Areas ((Penguin Bank, Maui Nui Area, and Maunalua Bay), except as authorized by the Marine Mammal Protection Act (MMPA); the Endangered Species Act (ESA); the Migratory Bird Treaty Act (MBTA); the Magnuson Stevens Fishery Conservation and Management Act; or Hawai'i State Law.			✓	
	Taking or possessing any marine mammal, sea turtle, seabird, Endangered Species Act-listed species or Hawai'i Revised Statutes chapter 195D listed species, within or above the Sanctuary, except as authorized by the Marine Mammal Protection Act (MMPA); the Endangered Species Act (ESA); the Migratory Bird Treaty Act (MBTA); the Magnuson Stevens Fishery Conservation and Management Act; or Hawai'i State Law.				✓
Discharge	Discharging or depositing any material or other matter in the Sanctuary; altering the seabed of the Sanctuary, or discharging or depositing any material or other matter outside of the sanctuary if the discharge or deposit subsequently enters and injures a humpback whale or humpback whale habitat; provided that: such activity requires a Federal or State permit, license, lease, or other authorization, and is conducted: <ul style="list-style-type: none"> - without such permit, license, lease, or other authorization; or - not in compliance with the terms or conditions of such permit, license, lease, or other authorization. 	✓			
	Discharging or depositing any material or other matter in the Special Sanctuary Management Areas (Penguin Bank and Maui Nui area), except: <ul style="list-style-type: none"> (i) Fish, fish parts, chumming materials or bait used in or resulting from lawful fishing activities within the Sanctuary, provided that such discharge or deposit is during the conduct of lawful fishing activities within the Sanctuary; (ii) Biodegradable effluents incidental to vessel use and generated by Type I and II marine sanitation devices approved in accordance with section 312 of the Federal Water Pollution Control Act 33 U.S.C. 1322; (iii) Water generated by routine vessel operations (e.g., cooling water, deck wash down, and gray water as defined by section 312 of the Federal Water Pollution Control Act 33 U.S.C. 1322) excluding oily wastes from bilge pumping; (iv) Engine exhaust; or (v) Discharge of biodegradable materials for traditional ceremonies associated with culturally important customs and usage (e.g. the discharge of leis, paper lanterns). 		✓		
	Discharging or depositing any material or other matter in the Special Sanctuary Management Areas (Penguin Bank, Maui Nui area and Maunalua Bay), except: <ul style="list-style-type: none"> (i) Fish, fish parts, chumming materials or bait used in or resulting from lawful fishing activities within the Sanctuary, provided that such discharge or deposit is during the conduct of lawful fishing activities within the Sanctuary; (ii) Biodegradable effluents incidental to vessel use and generated by Type I and II marine sanitation devices approved in accordance with section 312 of the Federal Water Pollution Control Act 33 U.S.C. 1322; (iii) Water generated by routine vessel operations (e.g., cooling water, deck wash down, and gray water as defined by section 312 of the Federal Water Pollution Control Act 33 U.S.C. 1322) excluding oily wastes from bilge pumping; (iv) Engine exhaust; or 			✓	

Regulations		Alternative			
		1	2	3	4
	(v) Discharge of biodegradable materials for traditional ceremonies associated with culturally important customs and usage (e.g. the discharge of leis, paper lanterns).				
	Discharging or depositing any material or other matter in the Sanctuary, except: (i) Fish, fish parts, chumming materials or bait used in or resulting from lawful fishing activities within the Sanctuary, provided that such discharge or deposit is during the conduct of lawful fishing activities within the Sanctuary; (ii) Biodegradable effluents incidental to vessel use and generated by Type I and II marine sanitation devices approved in accordance with section 312 of the Federal Water Pollution Control Act 33 U.S.C. 1322; (iii) Water generated by routine vessel operations (e.g., cooling water, deck wash down, and gray water as defined by section 312 of the Federal Water Pollution Control Act 33 U.S.C. 1322) excluding oily wastes from bilge pumping; (iv) Engine exhaust; or (v) Discharge of biodegradable materials for traditional ceremonies associated with culturally important customs and usage (e.g. the discharge of leis, paper lanterns).				✓
Enter & Injure	Discharging or depositing any material or other matter in the Sanctuary; altering the seabed of the Sanctuary, or discharging or depositing any material or other matter outside of the sanctuary if the discharge or deposit subsequently enters and injures a humpback whale or humpback whale habitat; provided that: such activity requires a Federal or State permit, license, lease, or other authorization, and is conducted: - without such permit, license, lease, or other authorization; or - not in compliance with the terms or conditions of such permit, license, lease, or other authorization.	✓			
	Discharging or depositing any material or other matter outside of the Special Sanctuary Management Areas if the discharge or deposit subsequently enters and injures a sanctuary resource within the Special Sanctuary Management Areas (Penguin Bank and Maui Nui Area).		✓		
	Discharging or depositing any material or other matter outside of the Special Sanctuary Management Areas if the discharge or deposit subsequently enters and injures a sanctuary resource within the Special Sanctuary Management Areas (Penguin Bank, Maui Nui Area, and Maunalua Bay).			✓	
	Discharging or depositing any material or other matter outside of the Special Sanctuary Management Areas if the discharge or deposit subsequently enters and injures a sanctuary resource within the Sanctuary.				✓
Altering Submerged Lands	Discharging or depositing any material or other matter in the Sanctuary; altering the seabed of the Sanctuary, or discharging or depositing any material or other matter outside of the sanctuary if the discharge or deposit subsequently enters and injures a humpback whale or humpback whale habitat; provided that: such activity requires a Federal or State permit, license, lease, or other authorization, and is conducted: - without such permit, license, lease, or other authorization; or - not in compliance with the terms or conditions of such permit, license, lease, or other authorization.	✓			

Regulations		Alternative			
		1	2	3	4
Description					
Altering Submerged Lands	<p>Dredging, drilling into, or otherwise altering in any way the submerged lands (including natural bottom formations, live rock and coral) within the Special Sanctuary Management Areas (Penguin Bank and Maui Nui area), except:</p> <ul style="list-style-type: none"> (i) To anchor a vessel on sandy bottom or substrate other than live rock or coral; (ii) Routine maintenance of docks, seawalls, breakwaters, jetties, or piers authorized by any valid lease, permit, license, approval, or other authorization issued by any Federal, State, or local authority of competent jurisdiction; (iii) Installation and maintenance of navigational aids by, or pursuant to valid authorization by, any Federal, State, or local authority of competent jurisdiction; (iv) Activities associated with conducting harbor maintenance in accordance with a federal or state permit issued prior to [date final rule is effective], including dredging of entrance channels during the time period of one year from the [final rule effective date]; (v) Aquaculture activities authorized under a permit issued by the State of Hawai'i Department of Land and Natural Resources, the State of Hawai'i Department of Health, the U.S. Army Corps of Engineers, or the National Marine Fisheries Service pursuant to applicable regulations under the appropriate fisheries management plan. (vi) Lawful fishing activities authorized under a permit issued by the State of Hawai'i or the National Marine Fisheries Service pursuant to applicable regulations under the appropriate fisheries management plan. 		✓		
	<p>Dredging, drilling into, or otherwise altering in any way the submerged lands (including natural bottom formations, live rock and coral) within the Special Sanctuary Management Areas (Penguin Bank, Maui Nui area, and Maunalua Bay), except:</p> <ul style="list-style-type: none"> (i) To anchor a vessel on sandy bottom or substrate other than live rock or coral; (ii) Routine maintenance of docks, seawalls, breakwaters, jetties, or piers authorized by any valid lease, permit, license, approval, or other authorization issued by any Federal, State, or local authority of competent jurisdiction; (iii) Installation and maintenance of navigational aids by, or pursuant to valid authorization by, any Federal, State, or local authority of competent jurisdiction; (iv) Activities associated with conducting harbor maintenance in accordance with a federal or state permit issued prior to [date final rule is effective], including dredging of entrance channels during the time period of one year from the [final rule effective date]; (v) Aquaculture activities authorized under a permit issued by the State of Hawai'i Department of Land and Natural Resources, the State of Hawai'i Department of Health, the U.S. Army Corps of Engineers, or the National Marine Fisheries Service pursuant to applicable regulations under the appropriate fisheries management plan. (vi) Lawful fishing activities authorized under a permit issued by the State of Hawai'i or the National Marine Fisheries Service pursuant to applicable regulations under the appropriate fisheries management plan. 			✓	
	<p>Dredging, drilling into, or otherwise altering in any way the submerged lands (including natural bottom formations, live rock and coral) within the Sanctuary, except:</p> <ul style="list-style-type: none"> (i) To anchor a vessel on sandy bottom or substrate other than live rock or coral; 				✓

Regulations		Alternative			
		1	2	3	4
Description					
	<ul style="list-style-type: none"> (ii) Routine maintenance of docks, seawalls, breakwaters, jetties, or piers authorized by any valid lease, permit, license, approval, or other authorization issued by any Federal, State, or local authority of competent jurisdiction; (iii) Installation and maintenance of navigational aids by, or pursuant to valid authorization by, any Federal, State, or local authority of competent jurisdiction; (iv) Activities associated with conducting harbor maintenance in accordance with a federal or state permit issued prior to [date final rule is effective], including dredging of entrance channels during the time period of one year from the [final rule effective date]; (v) Aquaculture activities authorized under a permit issued by the State of Hawai'i Department of Land and Natural Resources, the State of Hawai'i Department of Health, the U.S. Army Corps of Engineers, or the National Marine Fisheries Service pursuant to applicable regulations under the appropriate fisheries management plan. (vi) Lawful fishing activities authorized under a permit issued by the State of Hawai'i or the National Marine Fisheries Service pursuant to applicable regulations under the appropriate fisheries management plan. 				
Explosives	Possessing or using explosives within the Special Sanctuary Management Areas, except for valid law enforcement purposes (Penguin Bank and Maui Nui area).		✓		
	Possessing or using explosives within the Special Sanctuary Management Areas, except for valid law enforcement purposes (Penguin Bank, Maui Nui area, and Maunalua Bay).			✓	
	Possessing or using explosives within the Sanctuary, except for valid law enforcement purposes				✓
Introduced Species	Introducing or otherwise releasing from within or into the Special Sanctuary Management Areas (Penguin Bank and Maui Nui area) an introduced species, except species cultivated by aquaculture activities in state or federal waters pursuant to a valid lease, permit, license or other authorization issued by the State of Hawai'i Department of Natural Resources, or the National Marine Fisheries Service in effect on the effective date of the final regulation.		✓		
	Introducing or otherwise releasing from within or into the Special Sanctuary Management Areas (Penguin Bank, Maui Nui area, and Maunalua Bay) an introduced species, except species cultivated by aquaculture activities in state or federal waters pursuant to a valid lease, permit, license or other authorization issued by the State of Hawai'i Department of Natural Resources, or the National Marine Fisheries Service in effect on the effective date of the final regulation.			✓	
	Introducing or otherwise releasing from within or into the Sanctuary an introduced species, except species cultivated by aquaculture activities in state or federal waters pursuant to a valid lease, permit, license or other authorization issued by the State of Hawai'i Department of Natural Resources, or the National Marine Fisheries Service in effect on the effective date of the final regulation.				✓
Historical & Cultural	Removing, damaging, or tampering with any historical or cultural resource within the Sanctuary.		✓	✓	✓

Regulations		Alternative			
		1	2	3	4
Description					
Signage	Marking, defacing, or damaging in any way, or displacing or removing or tampering with any signs, notices, or placards, whether temporary or permanent, or with any monuments, stakes, posts, or other boundary markers related to the Sanctuary including boundary markers related to the Special Sanctuary Management Areas (Penguin Bank and Maui Nui area).		✓		
	Marking, defacing, or damaging in any way, or displacing or removing or tampering with any signs, notices, or placards, whether temporary or permanent, or with any monuments, stakes, posts, or other boundary markers related to the Sanctuary including boundary markers related to the Special Sanctuary Management Areas (Penguin Bank, Maui Nui area, and Maunalua Bay).			✓	
	Marking, defacing, or damaging in any way, or displacing or removing or tampering with any signs, notices, or placards, whether temporary or permanent, or with any monuments, stakes, posts, or other boundary markers related to the Sanctuary including boundary markers related to the Sanctuary.				✓
Enforcement	Interfering with, obstructing, delaying or preventing an investigation, search, seizure or disposition of seized property in connection with enforcement of either of the Acts or any regulations issued under either of the Acts.	✓	✓	✓	✓

* Intent implied by prohibition against taking or possessing any marine mammal

11.4. Appendix D: Other Regulatory Authorities

Proposed Sanctuary Regulation	Existing State Regulations	Existing Federal Regulations
Prohibit take and possess		
<p>The sanctuary proposes a prohibition against taking or possessing any marine mammal, sea turtle, seabird, ESA-listed species or Hawai'i Revised Statutes chapter 195D listed species, within or above the sanctuary. Sanctuary management is not proposing to issue any of it's own permits, however the regulation makes exception to any take or possess action that is authorized by the MMPA, the ESA, the MBTA, the Magnuson Stevens Fishery Conservation and Management Act, or Hawai'i State Law.</p>	<p>The State of Hawai'i Wildlife Law prohibits the catch, possess, injure, kill, destroy, sell, offer for sale, or transport of indigenous wildlife and introduced wild birds. The law also prohibits the take, possess, process, sell, offer for sale, or transport of any endangered and threatened species of wildlife (HAR §13-124). These regulations do not apply to authorized employees of the department, or enforcement agents and inspectors of the department of agriculture and USFWS. The State may also issue permits for scientific or educational purposes including cultural activities, or for activities that will enhance the survival of the wildlife species.</p>	<p>Under the ESA prohibited acts, it unlawful to take, possess, sell, deliver, carry, transport, or ship, any endangered species of fish or wildlife (16 U.S.C. § 1538). Under the MMPA prohibition Section 102, it is unlawful to take or possess any marine mammal in waters or on lands within the United States except as permitted for scientific research, public display, photography for educational or commercial purposes, or enhancing the survival or recovery of a species of stock. Exceptions are made for marine mammals taken incidentally in the course of commercial fishing operations (16 U.S.C. § 1372). NOAA Fisheries federal regulations prohibit the take, import, or export of any threatened or endangered species (50 C.F.R. § 216.1-11).</p> <p>The MBTA prohibits the killing or taking of migratory birds. USFWS is responsible for implementing this federal prohibition, which protects seabirds, their eggs, and their nests. However, NOAA Fisheries also has statutory authority and responsibilities to reduce the effects of fisheries bycatch and manage seabird habitat within the U.S. Exclusive Economic Zone (Rivera et al. 2009).</p>
Prohibit discharge and enter and injure		
<p>The sanctuary proposes a prohibition against discharging or depositing any material or matter into the sanctuary, or adjacent to the sanctuary if that discharge subsequently enters the sanctuary and injures a sanctuary resource. Sanctuary management may issue permits for research, education, and management. The types of activities to which these regulations may</p>	<p>The State of Hawai'i Administrative Rules Title 11 regulate water quality in state waters, including the establishment of water quality standards for various localities in compliance with the Clean Water Act and are implemented by the State of Hawai'i Department of Health (HAR § 11). The State of Hawai'i prohibits any person from allowing of any pollutant (including biological materials, soil, sludge, chemical, and agricultural waste)</p>	<p>The Clean Water Act prohibits the unauthorized discharge of pollutants into U.S. waters in an effort to restore and maintain water quality and is implemented by the Environmental Protection Agency (EPA; 33 U.S.C. § 1251-1387). The Ocean Dumping Act prohibits or limits the dumping into the ocean waters of any material which would adversely affect human health, welfare, or amenities, or the marine environment, ecological systems or economic potentialities and is also implemented by the EPA. The Rivers and Harbors Act regulates construction and prohibits the discharge of any refuse matter of any kind into navigable waters of the U.S. and is implemented by the U.S. Army Corps of Engineers. The Oil Pollution Act requires vessel owners to demonstrate evidence of financial</p>

Proposed Sanctuary Regulation	Existing State Regulations	Existing Federal Regulations
<p>apply include, but are not limited to, dumping of dredge, untreated vessel sewage and marine debris. It would also apply to land-based sedimentation and pollution discharge into sanctuary waters. These regulations will not apply to fish, fish parts, chumming materials or bait used in or resulting from fishing in the sanctuary, biodegradable effluents incidental to vessel use, water generated by routine vessel operations, engine exhaust, and discharge for ceremonial purposes.</p>	<p>to enter any state waters without a permit (HRS § 342D-50). Additionally, the State of Hawai'i prohibits littering or polluting water within a small boat harbor (HAR § 13-232) and requires all vessels on state waters and having a marine sanitation device to comply with 33 C.F.R. § 159 (HAR § 13-243-2).</p>	<p>responsibility for oil spills and requires tank vessels operating in the waters of the U.S. to be equipped with a double hull and is implemented by the Coast Guard. The Marine Plastic Pollution Research and Control Act prohibits the discharge of any plastic materials and regulates the discharge of other materials and is implemented by the EPA and NOAA. The Marine Debris Research, Prevention and Reduction Act is an effort to identify, assess, reduce and prevent marine debris and is implemented by NOAA.</p>
Prohibit altering submerged lands		
<p>The sanctuary proposes a prohibition against dredging, drilling into, or otherwise altering in any way submerged lands. Submerged lands include bottom formations, live rock and coral. This regulation will not apply to anchoring a vessel on sandy bottom or substrate, routine maintenance, ecological maintenance, or navigation. In addition, sanctuary management would recognize any aquaculture activities authorized under a permit issued by appropriate authorities. Sanctuary management would also issue permits for research, education, and management and submarine cables.</p>	<p>The State of Hawai'i prohibits intentional or negligent large-scale damage to stony coral and live rock, such as by vessel groundings, introduction of sediments, biological contaminants, and other pollutants. It also prohibits the take, break, or damage any stony coral or live rock. It is also unlawful to sell stony coral or live rock (HAR § 13-95 Amended). Hawai'i Water Quality Standards define activities that are permissible in specific marine bottom ecosystems categorized as Class I, in which activities are restricted to passive human uses without intervention or alteration, allowing the perpetuation and preservation of the marine bottom in a most natural state, and Class II, in which activities are restricted to uses compatible with the protection and</p>	<p>NOAA Fisheries prohibits any person from taking any stony coral, or to break or damage any stony coral with a crowbar, chisel, hammer, or any other implement. All precious corals beds in the populated Hawaiian Islands are designated as Essential Fish Habitat (EFH) by NOAA Fisheries and federal consultations are required for activities that may affect precious corals. Specific EFH, with extremely important ecological functions or areas that are especially vulnerable to human-induced degradation, are further defined by NOAA Fisheries and WesPac as Habitats of Particular Concern (HAPC). NMFS issues permits for harvesting precious corals for designated "Established Beds" in federal waters outside of 3 nautical miles.</p> <p>WesPac has also banned bottom trawling in the 1.5 square miles of exclusive economic zone around the U.S.-Affiliated Pacific Islands in 1983.</p> <p>Any entity (public or private) trying to establish an artificial reef or fish aggregation devices (FAD) in Hawai'i must get a permit from the U.S. Army Corp of Engineers. In addition to state authorities, the U.S. Army regulates the construction of aquaculture facilities.</p>

Proposed Sanctuary Regulation	Existing State Regulations	Existing Federal Regulations
	<p>propagation of fish, shellfish, and wildlife, and with recreation.</p> <p>In addition to the U.S. Army, the Hawai'i Office of Conservation and Coastal Lands and the Hawai'i Office of Environmental Quality Control regulate the construction of aquaculture facilities.</p>	
Prohibit explosives		
<p>The sanctuary proposes a prohibition against possessing or using explosives within the sanctuary. Explosives used for valid law enforcement purposes would not be prohibited under this regulation. Sanctuary management will not issue any additional permits for this regulation.</p>	<p>The State of Hawai'i restricts the use of firearms and spears in the marine environment and altogether prohibits the use of explosives in catching fish. The State of Hawai'i also prohibited the use of firearms to catch, attempt to catch or kill fish, crustaceans, mollusks, turtle, or marine mammals with the exception of sharks and gaffed tuna and billfish. Explosives, electro-fishing devices, and noxious chemicals are both unlawful to use in fishing and unlawful to possess in the vicinity of fishing activities (HAR § 13-75, HRS § 188-23).</p>	
Prohibit introduced species		
<p>The sanctuary proposes a prohibition against introducing or otherwise releasing an introduced species into the sanctuary. The regulation will not apply to species cultivated by mariculture activities in state waters pursuant to a valid lease, permit, license or other authorization issued by DLNR or NOAA Fisheries in effect on the effective date of the final regulation.</p>	<p>The State of Hawai'i prohibits the introduction or spread of species within state waters including HAR § 4-76 (Non-Indigenous Aquatic Species) including discharge of ballast water and has permitting requirements. The State of Hawai'i Department of Agriculture issues permits when mariculture ventures include non-indigenous species.</p>	<p>Executive Order 13112, which established the National Invasive Species Council, directs federal agencies to:</p> <p>Identify actions that may affect the status of invasive species;</p> <ol style="list-style-type: none"> (1) Use relevant programs and authorities to prevent the introduction of invasive species; (2) Detect, respond to and control populations of invasive species; (3) Monitor invasive species populations accurately and reliably; (4) Provide for restoration of native species and habitat conditions; (5) Conduct research; promote public education; and (6) Not authorize or fund actions that may promote introduction of species

Proposed Sanctuary Regulation	Existing State Regulations	Existing Federal Regulations
Sanctuary management will not issue any of it's own permits for introduced species.		in consultation with the Invasive Species Council. NOAA Fisheries issues permits when mariculture ventures include non-indigenous species

11.5. Appendix E: Class I and Class II Marine Bottom Ecosystems

Marine Bottom Ecosystems		
Marine Bottom Type	Class I	Class II
Sand Beaches	Northwestern Hawaiian Islands	Populated Hawaiian Islands
Lava Rock Shoreline	All lava rock shorelines in preserves, reserves, sanctuaries, and refuges established by the Department of Land and Natural Resources under chapter 195 or chapter 190, HRS, or similar reserves for the protection of marine life established under chapter 190, HRS, as amended; or in refuges or sanctuaries established by USFWS or NOAA Fisheries.	All lava rock shorelines not in Class I.
Solution benches	All solution benches in preserves, reserves, sanctuaries, and refuges established by DLNR under chapter 195 or chapter 190, HRS, or similar reserves for the protection of marine life established under chapter 190, HRS, as amended; or in refuges or sanctuaries established by the USFWS or NOAA Fisheries.	Maui: Kīhei, Papa‘ūla Point Kaua‘i: Near Hanapēpē Salt Ponds, Miloli‘i, Nu‘alolo, Mākaha, Māhā‘ulepu, Kūhiō Beach Park (Kukui‘ūla) O‘ahu: Diamond Head, Mānana Island, Makapu‘u, Lā‘ie, Kahuku, Mokulē‘ia, Mākua, Mākaha, Maile, Lualualei, Barbers Point.
Marine Pools & Protected Coves	Hawai‘i: Hōnaunau, Kiholo All marine pools and protected coves in preserves, reserves, sanctuaries, and refuges established by DLNR under chapter 195 or chapter 190, HRS, or similar reserves for the protection of marine life established under chapter 190, HRS, as amended; or in refuges or sanctuaries established by the USFWS or NOAA Fisheries.	Hawai‘i: Kalpana, Pohaulpa, Kapalaoa, Kapoho King’s Landing (Pāpa‘i), Hilo, Leileiwi Point, Wailua Bay Maui: Hāna, Ke‘anae, Napulu, Pu‘u Ōla‘i to Cape Hanamanioa, Kīpahulu Moloka‘i: Cape Hālawa, Kalaupapa, South Coast O‘ahu: Diamond Head, Halona Blowhole to Makapu‘u, Mokulē‘ia, Ka‘ena Point, Mākua, Punalu‘u Kaua‘i: Keālia, Māhā‘ulepu, Hanamā‘ulu, Po‘ipū, Puolo Point

11.6. Appendix F: List of Agencies and Organizations Receiving Copies of the DEIS

Aha Moku Advisory Council
National Park Service
National Sea Grant College
NOAA Fisheries Pacific Islands Regional Office
NOAA National Centers for Coastal Ocean Science
NOAA Office of Law Enforcement
NOAA Office of Marine and Aviation Operations
NOAA Office of Ocean and Coastal Resource Management
NOAA Office of Response and Restoration
NOAA Pacific Islands Fisheries Science Center
State of Hawai‘i – Coastal Zone Management Program
State of Hawai‘i – Department of Business, Economic Development & Tourism - Energy Office
State of Hawai‘i – Department of Health
State of Hawai‘i – Department of Land and Natural Resources
State of Hawai‘i – Department of Transportation
State of Hawai‘i – Office of Conservation and Coastal Lands
State of Hawai‘i – Office of Hawaiian Affairs
State of Hawai‘i – Office of Planning
United States Coast Guard
United States Department of Defense
United States Environmental Protection Agency
United States Fish and Wildlife Service
University of Hawai‘i
Western Pacific Fisheries Management Council

11.7. Appendix G: Acronyms

AIS	Aquatic Invasive Species
AP	Assessing Progress
BFRA	Bottomfish Restricted Fishing Area
BMP	Best Management Practices
BPI	Black Pearl Inc.
BV	Ecosystem Benefits and Values
CBSFA	Community-based subsistence fishing area
CCP	Comprehensive Conservation Plan
CDUA	Conservation District Use Application
CE	Compliance and Enforcement
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CITES	Convention on International Trade in Endangered Species
CLIP	National Park Service Climate Leadership in Parks
COTS	Crown of Thorns Starfish
CP	Community Partnerships
CRED	Coral Reef Ecosystem Division
CT	Evolving Cultural Traditions
CWA	Clean Water Act
DBEDT	Department of Business, Economic Development and Tourism
DEIS	Draft Environmental Impact Statement
DLNR	Department of Land and National Resources
DMP	Draft Management Plan
DOBOR	Department of Boating and Ocean Recreation
DOCARE	Division of Conservation and Resource Enforcement
DOH	Department of Health
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EIS	Environmental Impact Statement
ENSO	El Niño Southern Oscillation
EO	Executive Order
EP	Emergency Preparedness and Damage Assessment
EPA	Environmental Protection Agency
ER	Understanding and Managing Specis and Habitats
ERMA	Environmental Response Management Application
FAD	Fish Aggregation Device
FR	Federal Register
FRN	Federal Register Notice
GDP	Gross Domestic Product
GIS	Geographic Information System
HADS	Heritage Awareness Diving seminars
HAPC	Habitats of Particular Concern
HAZWOPER	Hazardous Waste Operations and Emergency Response
HCH	Hexachlorocyclohexane

HECO	Hawaiian Electricity Company
HINMSA	Hawaiian Islands National Marine Sanctuary Act
HLCC	Hawaiian Lee Counter Current
HRS	Hawai'i Revised Statutes
HTA	Hawai'i Tourism Authority
MAST	Maritime Archaeology Survey Techniques
MBTA	Migratory Bird Treaty Act
MCBI	Marine Conservation Biology Institute
MH	Maritime Heritage
MLCD	Marine Life Conservation District
MMPA	Marine Mammal Protection Act
MOA	Memorandum of Agreement
MOP	Marine Option Program
MPR	Management Plan Review
MPRSA	Marine Protection, Research and Sanctuaries Act
NAS	Nautical Archeology Society
NEC	North Equatorial Current
NEEH	NextEra Energy Hawai'i
NEPA	National Environmental Policy Act
NGO	Nongovernmental Organization
NHPA	National Historic Preservation Act
NHRC	North Hawaiian Ridge Current
NMFS	National Marine Fisheries Service
NMSA	National Marine Sanctuary Act
NMSAS	National Marine Sanctuary of American Samoa
NMSP	National Marine Sanctuary Program
NOAA	National Oceanic and Atmospheric Administration
NOS	National Ocean Service
NPC	North Pacific Central Water Mass
NRDA	Natural Resource Damage Assessment
NRHP	National Register of Historic Places
NWHI	Northwestern Hawaiian Islands
NWR	National Wildlife Refuge
OAT	Ocean Awareness Training
OCEAN	Ocean Conservation Education Action Network
OCS	Outer Continental Shelf
OF	Operational Foundation
OL	Ocean Literacy
OLE	NOAA Office of Law Enforcement
ONMS	Office of National Marine Sanctuaries
OPM	Operations, Personnel and Maintenance
OPR	Office of Protected Resources
ORMA	Ocean Recreation Management Area
OTEC	Ocean Thermal Energy Conversion
OWS	Oscillating Water Column
PacIOOS	Pacific Integrated Ocean Observing System

PDO	Pacific Decadal Oscillation
PIBHMC	Pacific Islands Benthic Habitat Mapping Center
PIFSC	Pacific Island Fisheries Science Center
PIR	Pacific Islands Region
PMNM	Papahānaumokuākea Marine National Monument
POP	Persistent Organic Pollutant
PUC	Public Utilities Commission
RC	Resilience to a Changing Climate
RFP	Request for Proposal
RHA	Rivers and Harbors Act
ROD	Record of Decision
ROI	Region of Interest
ROV	Remotely Operated Vehicle
RUST	Resources and Undersea Threats
SCUBA	Self-Contained Underwater Breathing Apparatus
SHIELDS	Sanctuaries Hazardous Incident Emergency Logistics Database System
SPLASH	Structure of Populations, Levels of Abundance, and Status of Humpbacks
SU	Sustainable Use
TOAD	Tethered Optical Assessment Device
U.S.C.	United States Code
UAS	Unmanned Aircraft Systems
USACE	US Army Corp of Engineers
USCG	United States Coast Guard
USFWS	US Fish and Wildlife Service
USWEX	Undersea War Exercise
WesPac	Western Pacific Regional Fishery Management Council
WQ	Water Quality Protection
WTP	Willingness to Pay

11.8. Appendix H: Hawaiian Terms Glossary

ae‘o	Hawaiian stilt
‘ahi	white spotted surgeonfish
‘ahi	yellowfin or bigeye tuna
āholehole	Hawaiian flagtail
ahupua‘a	land division usually extending from mountain to sea
‘ai	food
‘āina	land
‘alae ke‘oke‘o	Hawaiian coot
‘alae‘ula	Hawaiian moorhen
‘ala‘ihi	spotfin squirrelfish
ali‘i	chief
aloha ‘āina	love of the land and sea
a‘o aku	to teach
a‘o mai	to learn
‘āpe‘ape‘a	Hawaiian hoary bat
‘aumakua	deified ancestor
‘auwai	taro irrigation ditch
ehu	squirrelfish snapper
‘ewalu	eight
hāhālua	manta ray
hailepo	spotter eagle ray
hāpu‘upu‘u	Hawaiian sea bass
he‘e	octopus
heiau	shrine or place of worship
hīnālea lau-wili	saddle wrasse
hinana	juvenile goby
hi‘uwai	water purification festivity
honu	turtle
honu ‘ea	hawksbill turtle
ho‘ohawai‘i	to act as an Hawaiian
ho‘okaulike	to balance
hope	after
hukilau	seine fishing
hula	Hawaiian dance
‘Īlioholoikaua	Hawaiian monk seal
imu	underground oven
kāhala	amberjack
kai	sea
kala	unicornfish
kalekale	Von Siebold’s snapper (Hawaiian snapper)
Kanaka ‘Ōiwi	Native Hawaiian person
kapu kai	ceremonial sea bath for purification
kapu	sacred
kilo i‘a	fish sighting spot

ko'a	coral, fishing grounds or shrine built of coral and stone
koa'e	longtail snapper (also tropicbirds, particularly the white-tailed variety)
koholā kuapi'o	humpback whale
kohola	or reef flat
koholā	Humpbacked whale
koloa maoli	Hawaiian duck
kuleana	responsibility
kumulipo	origin, Hawaiian creation chant
kupuna	ancestor
Laka	goddess of hula
laulima	many hands, cooperation
lehi	silverjaw snapper (also lehe)
lei	necklace of flowers, leaves, shells and more
leina	jumping off point
leina-a-ka-uhane	place from which spirits leap into ancestral land
lele	cliff jumping spot
limu	algae, underwater plant
lo'i	irrigated terrace for taro or rice
loko i'a	fishpond
mahimahi	dolphinfish
makai	ocean
makawalu	eight eyes, numerous
makukana	thornback cowfish
mālama	to take care of
mamo	Hawaiian sergeant
manini	convict tang
manō kihikihi	scalloped hammerhead shark
manō lālākea	oceanic white tip reef shark
manō	shark
mauka	inland
mo'o	reptile, water spirit
moi	Pacific threadfin
moku	district encompassing ahupua'a
mo'okū'auhau	genealogy
mua	before
muliwai	brackish pond
na'ena'e	orange band surgeonfish
nai'a	dolphin
nēnē	Hawaiian goose
nenuē	rudderfish, or chub
'ohana	family
o'i liuwi'uwi	fantail filefish
'ōlelo Hawai'i	Hawaiian language
'ōmaka	belted wrasse
'ōmilu	bluefin trevally
onaga	red snapper
ono	wahoo

‘o‘opu ‘akupa	<i>Eleotris sandwicensis</i>
‘o‘opu alamo‘o	<i>Lentipes concolor</i>
‘o‘opu nākea	<i>Awaous Guamensis</i>
‘o‘opu naniha	<i>Stenogobius hawaiiensis</i>
‘o‘opu nōpili	<i>Sicyopterus stimpsoni</i>
‘ōpakapaka	pink snapper
‘opihi	limpet
‘opihi alinalina	yellowfoot limpet
pāku‘iku‘i	achilles tang
palani	eyestripe surgeonfish
palaoa	sperm whales
pāpa‘i kualoa	Kona crab
Pele	volcano goddess
pipipi	nerite snail
po kane	night marcher
pu‘uōla‘i	crowned toby
puhi	eel
puna kea	rice coral
pupu	small shelter
pūpū	marine or land shell
pu‘uhonua	place of refuge
roi	peacock grouper
ta‘ape	blueline snapper
toau	blacktail snapper
uhu	parrotfish
‘ukīkiki	Bringham’s snapper
uku	snapper
ula	spiny lobster
ula-pāpapa	slipper lobster
ulua	crevally
umeiki	stone fish trap
wā	time
wahi pana	legendary place
weke	<i>Mullidae</i>
weke ‘ula	goatfish

11.9. Appendix I: Definitions

Acts means the Hawaiian Islands National Marine Sanctuary Act (HINMSA; sections 2301-2307 of Pub. L. 102-587), and the National Marine Sanctuaries Act (NMSA; also known as Title III of the Marine Protection, Research, and Sanctuaries Act (MPRSA), as amended, 16 U.S.C. 1431 et seq.).

Adverse Impact means an impact that independently or cumulatively damages, diminishes, degrades, impairs, destroys, or otherwise harms.

Alteration of the seabed means drilling into, dredging, or otherwise altering a natural physical characteristic of the seabed of the Sanctuary; or constructing, placing, or abandoning any structure, material, or other matter on the seabed of the Sanctuary.

Biocultural Resources means biological resources that also have cultural value. In Hawaiian culture, all biological resources are perceived to have cultural value so this refers to all resources found within the sanctuary. The United Nations Development Program (UNDP) has coined the term “biocultural” to describe the “fundamental link between local language, ecological knowledge, cultural practices and biodiversity” (Maffi and Woodley, 2010).

Civil Action means actions arising under the National Marine Sanctuaries Act or under authorities supporting state claims within the sanctuary, including civil penalties recovered under section 307, and amounts recovered under section 312, of the National Marine Sanctuaries Act.

Coral means but is not limited to species of the Phylum Cnidaria, including all species in the: Class Anthozoa, Subclass Hexacorallia, Order Scleractinia (stony corals); Class Anthozoa, Subclass Hexacorallia, Order Antipatharia (black corals); Class Anthozoa, Subclass Hexacorallia, Order Zoantharia, Family Parazoanthidae (gold coral); Class Anthozoa, Subclass Octocorallia, Order Alcyonacea (soft corals, bamboo coral, pink coral); Class Anthozoa, Subclass Octocorallia, Order Gorgonacea (gorgoneans); Class Anthozoa, Subclass Octocorallia, Order Pennatulacea (sea pens); Class Hydrozoa, Subclass Hydroidolina, Order Anthoathecata, Suborder Filifera, Family Stylasteridae (stylasterids).

Coral Reef means the hard bottoms, deep-water banks, patch reefs, and outer bank reefs.

Ecosystem means a community of living organisms (e.g., plants, animals and microbes) in conjunction with the nonliving components of their environment (e.g., air, water and mineral soil), interacting as a system.

Ecosystem-based Management means an environmental management approach that recognizes the full array of interactions within an ecosystem, including humans, rather than considering single issues, species, or ecosystem services in isolation (Christensen et al. 1996, McLeod et al. 2005).

Emergency Regulations means any temporary regulation, including prohibitions necessary to prevent or minimize the destruction of, loss of, or injury to a sanctuary resource.

Governor means the Governor of the State of Hawai‘i, or designee.

Habitat means those ecological or environmental areas inhabited by one or more living species.

Introduced Species means any species (including, but not limited to, any of its biological matter capable of propagation) that is non-native to the ecosystems of the Sanctuary; or any organism into which altered genetic matter, or genetic matter from another species, has been transferred in order that the host organism acquires the genetic traits of the transferred genes.

Live Rock means any Coral, basalt rock, or other natural structure with any living organisms growing in or on the Coral, basalt rock, or structure.

Management Plan means the final management plan and regulations for the Hawaiian Islands National Marine Sanctuary - *Nā Kai ‘Ewalu*.

Military Activities means those military activities conducted by or under the auspices of the Department of Defense and any combined military activities carried out by the Department of Defense and the military forces of a foreign nation.

Native Hawaiian Practice means cultural activities conducted for the purposes of perpetuating traditional knowledge, caring for and protecting the environment and strengthening cultural and spiritual connections to the Hawaiian Islands that have demonstrable benefits to the Native Hawaiian community. This may include, but is not limited to, the non-commercial use of sanctuary resources for direct personal consumption while in the sanctuary.

Protected Species means an animal or plant population that is declining in the wild, and is protected under federal or state statutes or regulations. The decline could be as a result of human or other causes. They are also widely known as endangered and threatened species.

Sanctuary means the Hawaiian Islands National Marine Sanctuary - *Nā Kai ‘Ewalu*.

Sanctuary Focus Areas means specific locations within the sanctuary with place-based management approaches developed to improve the overall health of the marine environment (i.e., Nī‘ihau, Pīla‘a, and Maunalua).

Special Sanctuary Management Areas means discrete, biologically and/or culturally important areas that help sustain critical marine species and habitats.

Sanctuary Resource means any living or non-living resource of a national marine sanctuary that contributes to the conservation, recreational, ecological, historical, research, educational, or aesthetic value of the sanctuary, including, but not limited to, the substratum of the area of the sanctuary, other submerged features and the surrounding submerged lands, carbonate rock, corals and other bottom formations, coralline algae and other marine plants and algae, marine invertebrates, phytoplankton, zooplankton, fish, seabirds, sea turtles and other marine reptiles, marine mammals, and historical and cultural resources.

Secretary means the Secretary of Commerce.

Shoreline means the upper reaches of the wash of the waves, other than storm or seismic waves, at high tide during the season of the year in which the highest wash of the waves occurs, usually evidenced by the edge of vegetation growth, or the upper limit of debris left by the wash of the waves.

State means the State of Hawai‘i.

Take or Taking a humpback whale or protected species means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect or injure a humpback whale, or to attempt to engage in any such conduct. The term includes, but is not limited to, any of the following activities: collecting any dead or injured humpback whale, or any part thereof; restraining or detaining any humpback whale, or any part thereof, no matter how temporarily; tagging any humpback whale; operating a vessel or aircraft or doing any other act that results in the disturbing or molesting of any humpback whale.

Vessel means a watercraft of any description, including, but not limited to, motorized and non-motorized watercraft, personal watercraft, airboats, and float planes while maneuvering on the water, capable of being used as a means of transportation in/on the waters of the sanctuary.

11.10. Appendix J: Index

Ahupua‘a, 56, 57, 157, 163, 167, 204, 205, 444, 446, 452
 Aloha ‘Āina, 35, 40, 303, 447
 Aquaculture, 117, 166, 235, 440, 441, 454, 456
 Biocultural, 415, 447, 451
 Connectivity, 148
 Coral Bleaching, 89
 Dumping, 217, 403
 Fisheries, 3, 30, 52, 54, 80, 81, 82, 83, 85, 93, 95, 113, 128, 129, 131, 132, 133, 134, 137, 146, 163, 168, 175, 180, 198, 216, 218, 224, 235, 236, 238, 239, 240, 241, 242, 367, 403, 404, 405, 407, 408, 410, 411, 434, 443, 444, 445, 447, 452, 453, 454, 455, 456, 457, 458, 459
 Fishpond, 105, 106, 237, 365
 Humpback Whale, 2, 3, 14, 15, 24, 26, 30, 32, 35, 38, 46, 51, 71, 74, 76, 77, 81, 84, 85, 95, 119, 124, 134, 247, 253, 260, 390, 394, 436, 441, 442, 447, 453, 455, 461, 462
 Invasive Species, 223, 224, 405, 409, 459
 Limu, 206, 236, 242, 243
 Marine Debris, 97, 130, 131, 217, 283, 403, 453
 Maui Nui, 17, 18, 19, 22, 47, 49, 50, 51, 53, 54, 60, 64, 65, 66, 67, 68, 72, 138, 173, 177, 179, 180, 190, 192, 196, 197, 198, 199, 200, 209, 215, 227, 228, 230, 231, 255, 257, 330, 343, 344, 345, 346, 347, 348, 395, 397, 398, 399, 401, 402, 457
 Maunalua Bay, 17, 18, 22, 47, 60, 61, 65, 66, 67, 68, 169, 170, 171, 172, 192, 196, 209, 210, 211, 212, 213, 214, 215, 221, 225, 227, 228, 230, 231, 246, 255, 257, 330, 349, 350, 351, 352, 354, 355, 356, 357, 398, 399, 401, 402, 446, 460, 463
 Monk Seal, 85, 104, 115, 117, 120, 146, 157, 159, 163, 165, 166, 204, 206, 440, 447, 453, 454, 455, 457, 462
 Navy, 30, 91, 97, 111, 112, 113, 116, 132, 133, 134, 138, 152, 156, 171, 178, 221, 234, 391, 394, 396, 462
 Ni‘ihau, 17, 18, 19, 22, 47, 49, 50, 54, 55, 61, 62, 64, 70, 71, 75, 76, 100, 111, 114, 133, 137, 139, 140, 142, 143, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 192, 201, 202, 227, 228, 229, 230, 255, 257, 330, 331, 332, 333, 334, 335, 336, 394, 396, 416, 448, 459
 Ocean Count, 46, 122, 268, 274, 318, 320, 322
 Penguin Bank, 17, 18, 19, 27, 47, 49, 51, 53, 54, 60, 64, 65, 66, 67, 68, 72, 80, 173, 174, 175, 196, 197, 198, 199, 200, 208, 215, 227, 228, 230, 231, 394, 395, 397, 398, 399, 401, 402, 436, 445
 Permit, 107, 434, 447
 Recreation, 29, 30, 99, 116, 117, 120, 124, 125, 154, 167, 168, 171, 181, 183, 210, 211, 230, 236, 245, 409, 410, 454
 Runoff, 375
 Speed, 246, 247, 249
 Spills, 448
 Spinner Dolphin, 454, 463
 Turtle, 119, 163, 166, 168, 206, 324, 388, 438, 441, 442, 451, 456
 Vessel, 90, 91, 94, 197, 215, 287, 344, 375, 417, 441, 447, 456, 462
 Volunteer, 311, 372
 Water Quality, 21, 22, 50, 89, 99, 180, 181, 182, 185, 188, 189, 202, 203, 204, 217, 218, 219, 225, 228, 253, 254, 257, 260, 282, 284, 285, 288, 404, 411

11.11. Appendix K: Summary of Proposed Changes to the Sanctuary Terms of Designation

Section 304(a)(4) of the National Marine Sanctuaries Act (NMSA) requires that the terms of designation include the geographic area included within the sanctuary; the characteristics of the area that give it conservation, recreational, ecological, historical, research, educational, or aesthetic value; and the types of activities that will be subject to regulation by the Secretary of Commerce to protect these characteristics.

Pursuant to the NMSA and the HINMSA, the terms of designation of the sanctuary shall be modified pursuant to Sections 303 and 304 of the NMSA and Sections 2305 and 2306 of the HINMSA.

With this proposed rule, NOAA is proposing changes to the HIHWNMS terms of designation, which were previously published in the Federal Register on March 28, 1997 (62 FR 14799). The changes would:

1. Modify the introduction to change the name of the sanctuary to the Hawaiian Islands National Marine Sanctuary - Nā Kai 'Ewalu, and re-characterize the purpose of the sanctuary as ecosystem-based (rather than single species).
2. Modify Article I. Effect of Designation to change the name of the sanctuary to the Hawaiian Islands National Marine Sanctuary - Nā Kai 'Ewalu.
3. Modify Article II. Description of the Area to update the boundary description with the new areas NOAA proposes adding to the sanctuary and remove the outdated text pertaining to Kahoolawe Island.
4. Modify Article III. Characteristics of the Area to update information on the abundance of humpback whales found near the Hawaiian Islands.

5. Modify Article IV. Scope of Regulations to update the activities regulated to include the activities covered by the proposed regulations.
6. Modify Article V to update the reference to the NMSA.

The revised terms of designation are proposed to read as follows (new text in bold and deleted text in brackets and italics):

DESIGNATION OF THE HAWAIIAN ISLANDS [HUMPBACK WHALE] NATIONAL MARINE SANCTUARY – NĀ KAI ‘EWALU

On November 4, 1992, President Bush signed into law the Hawaiian Islands National Marine Sanctuary Act (HINMSA or Act; Subtitle C of the Oceans Act of 1992, Pub. L. 102–587) which designated the Hawaiian Islands Humpback Whale National Marine Sanctuary [(HIHWNMS or Sanctuary)], **now called the Hawaiian Islands National Marine Sanctuary - Nā Kai ‘Ewalu (Sanctuary)**. The purposes of the Sanctuary are to:

- (1) protect **and conserve the marine ecosystem of the Hawaiian islands including** humpback whales, **marine turtles and other protected species**, [and their] Sanctuary habitat, **and historic and cultural resources and values**;
- (2) educate and interpret for the public the **value** [relationship] of [humpback whales to] the **natural, historic and cultural value of the** Hawaiian Islands marine environment; **and**
- (3) manage human uses of the Sanctuary consistent with the designation and Title III of the Marine Protection, Research and Sanctuaries Act, as amended (MPRSA; also cited as the National Marine Sanctuaries Act or NMSA), 16 U.S.C. § 1431 et seq. [; and
- (4) provide for the identification of marine resources and ecosystems of national significance for possible inclusion in the Sanctuary.]

ARTICLE I. EFFECT OF DESIGNATION

Section 2306 of the HINMSA requires the Secretary to develop and issue a comprehensive management plan and implementing regulations to achieve the policy and purposes of the Act, consistent with the procedures of sections 303 and 304 of the NMSA. Section 304 of the NMSA authorizes the issuance of such regulations as are necessary and reasonable to implement the designation, including managing and protecting the conservation, recreational, ecological, historical, research, educational and aesthetic resources and qualities of the Hawaiian Islands Humpback Whale National Marine Sanctuary, **now called the Hawaiian Islands National Marine Sanctuary - Nā Kai ‘Ewalu**. Section 1 of Article IV of this Designation Document lists activities subject to regulation which are those activities that may be regulated on the effective date of the regulations, or at some later date in order to implement the Sanctuary designation.

ARTICLE II. DESCRIPTION OF THE AREA

The HINMSA identified a Sanctuary boundary but authorized the Secretary to modify the boundary as necessary to fulfill the purposes of the designation. The Sanctuary boundary was modified by the Secretary to encompass the submerged lands and waters off the coast of the Hawaiian Islands extending seaward from the shoreline, cutting across the mouths of rivers and streams,—

(1) O‘ahu: The sanctuary boundary on the southern shore of O‘ahu is defined by the coordinates provided in table A1 and the following textual description. The boundary begins ENE of Makapuu Point roughly 3.4 nautical miles offshore at Point 1. It approximates the 100-fathom (182.8 meter) isobath line extending first clockwise to the SE, then to the SW, and finally to the west to Point 68 in numerical order. From Point 68 the

boundary extends NE towards Point 69 and the Kapahulu Groin. From Point 69 the boundary extends towards Point 70 until it intersects the shoreline. From this intersection the boundary then follows the shoreline eastward around Diamondhead Crater and Maunalua Bay until it intersects the line segment between Point 71 and Point 72 at the western entrance to the Hawaii Kai Marina. From this intersection the boundary moves towards Point 72 across the entrance to the marina until it intersects the shoreline again. The boundary then follows the shoreline eastward until it intersects the line segment between Point 73 and Point 74 at the eastern entrance to the Hawaii Kai Marina. From this intersection the boundary moves towards Point 74 across the entrance to the marina until it intersects the shoreline again. The boundary then follows the shoreline south around Koko Head and then northward around Pai‘olu‘olu Point, into Hanauma Bay and then back out and around Palea Point. The boundary then continues to follow the shoreline to the NE until it intersects the line between Point 75 and Point 76 at Makapuu Point. From this intersection the boundary extends seaward to the NE to Point 76. The sanctuary boundary on the North Shore of O‘ahu is defined by the coordinates provided in table A2 and the following textual description. The boundary extends from Point 1, located roughly 3.5 nautical miles NW of Ali‘i Beach Park in Hale‘iwa, approximating the 100-fathom (182.8 meter) isobath line first to the NE and then to the SE to Point 60 in numerical order roughly 2.7 nautical miles NE of Māhie Point. The eastern edge of the sanctuary extends SW from Point 60 towards Point 61 at Māhie Point (aka Makahonu Point) until it intersects the shoreline. From this intersection the boundary follows the shoreline to the NW around Kahuku Point and then to the SW until it intersects the line segment between Point 62 and Point 63 at the eastern breakwater protecting Haleiwa Harbor. From this intersection the boundary extends towards Point 63 and the western breakwater until it

intersects the shoreline again. From this intersection the boundary follows the shoreline to the SW until it intersects the line segment between Point 64 and Point 65 near Ali‘i Beach Park. From this intersection the sanctuary boundary extends seaward to the NW to Point 65.

(2) **Hawai‘i:** The sanctuary boundary of Hawai‘i Island is defined by the coordinates provided in table A3 and the following textual description. The boundary begins offshore roughly 0.5 nautical miles west of Keāhole Point at Point 1, and approximates the 100-fathom (182.8 meter) isobath line as it extends northward to Point 102 in numerical order. The northeastern edge of the sanctuary boundary extends from Point 102 south towards Point 103 on the tip of ‘Upolu point until it intersects the shoreline. From this intersection, the boundary extends west and then south along the shoreline until it intersects the line segment between Point 104 and Point 105 to the north of Kawaihae Harbor. Kawaihae Harbor is excluded from the sanctuary so the boundary extends across the mouth of the harbor from this intersection towards Point 105 on the outer breakwater of Kawaihae Harbor until it intersects the shoreline. From this intersection the boundary continues south along the shoreline until it intersects the line segment between Point 106 and Point 107 at the westernmost tip of Hawai‘i Island (Keahole Point), west of the southern end of Kona Airport. From this intersection, the boundary extends seaward approximately 0.5 nautical miles west to Point 107.

(3) **Ni‘ihau:** The sanctuary boundary around the island of Ni‘ihau (including Lehua Island) is defined by the coordinates provided in table A4 and the following textual description. The landward boundary of Ni‘ihau and Lehua is the shoreline. The seaward boundary of

Ni‘ihau and Lehua is approximately three nautical miles from the shoreline and extends around the islands from Points 1 to 61 in numerical order.

(4) Kaua‘i: The sanctuary boundary off the north coast of Kaua‘i is defined by the coordinates in table A5 and the following textual description. The boundary begins offshore nearly 3.8 nautical miles WNW of Ka‘ilio Point at Point 1 and approximates the 100-fathom (182.8 meters) isobath line as it extends eastward in numerical order to Point 59, approximately 1.5 nautical miles NE of Kepuhi point at roughly the Pila‘a/Waipake ahupua‘a boundary. The eastern edge of the sanctuary boundary then extends SW from Point 59 towards Point 60 on Kepuhi Point until it intersects the shoreline. From this intersection the sanctuary boundary extends westward along the shoreline of the north coast of Kaua‘i, and then continues to follow the shoreline as it extends southward along the eastern shore of Hanalei Bay until it intersects the line segment between Point 61 and Point 62 at approximately the mouth of the Hanalei River. From this intersection the boundary extends towards Point 62 until it intersects the shoreline again. From this intersection the boundary continues to follow the shoreline south around Hanalei Bay and then westward around Ka‘ilio Point until it intersects the line between Point 63 and Point 64 at approximately the boundary of the Ha‘ena/Hanakāpi‘ai ahupua‘a NE of Hanakāpi‘ai beach. From this intersection, the boundary extends seaward to the WNW to Point 64.

(5) Maui Nui: The sanctuary boundary in Maui Nui between the islands of Moloka‘i, Lana‘i, and Maui is defined by the coordinates in table A6 and the following textual description. The boundary begins roughly 3.5 nautical miles west of ‘Īlio Point off the northwest tip of Moloka‘i at Point 1. The boundary approximates the 100-fathom (182.8

meter) isobath line to the west and south around Penguin Bank and then back to the north and east following the coordinates in numerical order across Kalohi Channel to Point 202 to the NE of Kaena on Lana'i. The boundary then continues to approximate the 100-fathom (182.8 meter) isobath line south continuing to the west of Lana'i and then SE crossing the Kealaikahiki Channel and continuing between Kaho'olawe and Molokini to the SE to Point 347 in numerical order roughly 2.2 nautical miles SW of Hanamanioa Lighthouse on the southern shore of Maui. The boundary then continues NE towards Point 348 until it intersects the shoreline near the Hanamanioa Lighthouse. At this intersection the boundary follows the shoreline northward to Mā'alaea Bay until it intersects the line segment between Point 349 and Point 350 at the eastern breakwater of the entrance to Mā'alaea Harbor. From this intersection the boundary continues toward Point 350 until it intersects the shoreline at the western breakwater of Mā'alaea Harbor. From this intersection the boundary continues to follow the shoreline SW around McGregor and Papawai Points and then to the NW until it intersects the line between Point 351 and Point 352 at the outer breakwater entrance to Lahaina Small Boat Harbor. From this intersection the boundary continues towards Point 352 until it intersects the shoreline again. From this intersection the boundary then continues to follow the shoreline northward until it intersects the line between Point 353 and Point 354 at Lipoa Point on the NW tip of Maui. From this intersection the boundary continues to the NNW across the Pailolo Channel through Point 354 and Point 355 to the intersection of the line segment between Point 356 and Point 357 and the shoreline at Cape Halawa on the NE tip of Molokai. From this intersection the boundary continues to follow the shoreline to the SW and then westward until it intersects the line segment between Point 358 and Point 359 east of Kaunakakai Pier. From this intersection the boundary then continues offshore through

Point 359 and Point 360 and towards Point 361 to the west of Kaunakakai Pier until it intersects the shoreline. From this intersection the boundary continues to follow the shoreline westward until it intersects the line segment between Point 362 and Point 363 near the entrance to Lono Harbor. From this intersection the boundary continues towards Point 363 until it intersects the shoreline again. From this intersection the boundary continues to follow the shoreline westward around Laau Point, and then it continues NNE until it reaches the intersection of the shoreline with the line segment between Point 364 and Point 365 at ‘Īlio Point on the NW tip of Moloka‘i. From this intersection the boundary continues seaward to Point 366 west of ‘Īlio Point. The landward sanctuary boundary around the island of Lana‘i is the shoreline. The boundary follows the western shoreline of the island south from Keanapapa Point until it intersects the line between Point 367 and Point 368 at the breakwater north of Kaumalapau Harbor. The boundary extends towards Point 368 south of the harbor mouth, excluding Kaumalapau Harbor from the sanctaury, until it intersects the shoreline again. From this intersection the boundary continues to follow the shoreline south around Palaoa Point and then east until it intersects the line between Point 369 and Point 370 at the SE breakwater of Manele Small Boat Harbor. From this intersection the boundary extends across the mouth of the harbor towards Point 370 until it intersects the shoreline again at the NE breakwater, excluding Manele Small Boat Harbor from the sanctuary. From this intersection the boundary continues to follow the shoreline of Lana‘i to the east around Kikoa Point and then to the NW to Keanapapa Point.

[(1) To the 100-fathom (183 meter) isobath adjoining the islands of Maui, Molokai and Lanai, including Penguin Bank, but excluding the area within three nautical miles of the upper

reaches of the wash of the waves on the shore of Kahoolawe Island;

(2) To the deep water area of Pailolo Channel from Cape Halawa, Molokai, to Nakalele Point, Maui, and southward;

(3) To the 100-fathom (183 meter) isobath around the island of Hawaii;

(4) To the 100-fathom (183 meter) isobath from Kailiu Point eastward to Makahuena Point, Kauai; and

(5) To the 100-fathom (183 meter) isobath from Puaena Point eastward to Mahie Point, and from the Ala Wai Canal eastward to Makapuu Point, Oahu.

Excluded from the Sanctuary boundary are the following commercial ports and small boat harbors:

Hawaii (Big Island)

Hilo Harbor Honokohau Boat Harbor

Kawaihae Boat Harbor & Small Boat Basin

Keauhou Bay

Oahu

Ala Wai Small Boat Basin

Kauai

Hanamaulu Bay

Nawiliwili Harbor

Lanai

Kaumalapau Harbor

Manele Harbor

Maui

Kahului Harbor

Lahaina Boat Harbor

Maalaea Boat Harbor

Molokai

Hale o Lono Harbor

Kaunakakai Harbor

As specified at sections 2305(b) of the HINMSA, on January 1, 1996, the area of the marine environment within 3 nautical miles of the upper reaches of the wash of the waves on the shore of Kahoolawe Island was to become part of the Sanctuary, unless during the 3 month period immediately preceding January 1, 1996, the Secretary certified in writing to Congress that the area was not suitable for inclusion in the Sanctuary. The Secretary made such a certification in December 1995. As such, the waters surrounding Kahoolawe are not included in the Sanctuary. The HINMSA was amended in 1996 to allow the Kahoolawe Island Reserve Commission

(KIRC) to request inclusion of the marine waters three miles from Kahoolawe in the Sanctuary. Upon receiving a request from the KIRC, should NOAA determine that Kahoolawe waters may be suitable for inclusion in the Sanctuary, NOAA will prepare a supplemental environmental impact statement, management plan, and implementing regulations for that inclusion. This process will include the opportunity for public comment. Further, the Governor would have the opportunity to certify his or her objection to the inclusion, or any term of that inclusion, and if this occurs, the inclusion or term will not take effect.]

ARTICLE III. CHARACTERISTICS OF THE AREA THAT GIVE IT PARTICULAR VALUE

The Hawaiian Islands comprise an archipelago which consist of eight major islands and 124 minor islands, with a total land area of **6,471** [6,423] square miles, and a general coastline of 750 miles. The central North Pacific stock of endangered humpback whales, the largest of the three North Pacific stocks, estimated to be at approximately **50**[10]% of its pre-whaling abundance, uses the waters around the main Hawaiian Islands for reproductive activities including breeding, calving and nursing. The warm, calm waters around the main Hawaiian Islands provide protective environments required for such activities. Of the known wintering and summering areas in the North Pacific used by humpback whales, the waters around the main Hawaiian Islands maintain the largest seasonally-resident population; approximately **12,000 to 16,000** [2,000 to 3,000] humpback whales use these waters. The proximity to shore helps support an active commercial whalewatch industry, which is supported annually by millions of visitors who either directly or indirectly enjoy the Sanctuary waters. In sections 2302 (1) and (4) of the HINMSA, Congressional findings state that “many of the diverse marine resources and ecosystems within the Western Pacific region are of national significance,” and “the marine environment adjacent to and between the Hawaiian Islands is a diverse and unique subtropical

marine ecosystem.” In addition, Congress found that the Sanctuary could be expanded to include other marine resources of national significance. The waters around the Hawaiian Islands contain 24 other species of cetaceans, the highly endangered Hawaiian monk seal, three species of sea turtles and many other marine species endemic to this environment. Coastal Hawaiian waters also support spectacular coral reef ecosystems which provide local people with an abundant source of fish and are a popular dive destination for visitors worldwide. These waters also contain a number of cultural/historical resources, including those reflecting native Hawaiian traditions and uses.

ARTICLE IV. SCOPE OF REGULATIONS

Section 1. Activities Subject to Regulation.

In order to implement the Sanctuary designation, the following activities **may be regulated** [are subject to regulation] to the extent necessary [and reasonable] to ensure the protection and management of the characteristics and values of the Sanctuary described above [; primarily the protection and management of humpback whales and their Sanctuary habitat. Regulation may include governing the method, location, and times of conducting the activity, and prohibition of the activity, after public notice and an opportunity to comment. If a type of activity is not listed it may not be regulated, except on an emergency basis, unless Section 1 of Article IV is amended by the procedures outlined in section 304(a) of the NMSA. Such activities are]:

a. Taking or otherwise damaging natural resources;

[a. Approaching, or causing another vessel or object to approach, by any means a humpback whale in the Sanctuary;]

b. [Flying over a humpback whale in the Sanctuary in any type of aircraft except as necessary for takeoff or landing from an airport or runway;

c.] Discharging or depositing any substance; [, from within or from beyond the boundary of the Sanctuary, any material or other matter into, or that enters or could enter the Sanctuary, without, or not in compliance with, the terms or conditions of a required, valid Federal or State permit, license, lease or other authorization;]

c. Disturbing the benthic community;

d. Removing or otherwise harming cultural or historical resources;

e. Operating a vessel;

f. Moving, removing, or tampering with any sign or other Sanctuary property;

g. Introducing or otherwise releasing an introduced species.

[d. Drilling into, dredging or otherwise altering the seabed of the Sanctuary; or constructing, placing or abandoning any structure, material or other matter on the seabed of the Sanctuary without, or not in compliance with, the terms or conditions of a required, valid Federal or State permit, license, lease or other authorization;

e. Taking, removing, moving, catching, collecting, harvesting, feeding, injuring, destroying or causing the loss of, or attempting to take, remove, move, catch, collect, harvest, feed, injure, destroy or cause the loss of any humpback whale or humpback whale habitat;

f. Possessing within the Sanctuary a humpback whale or part thereof regardless of where taken, removed, moved, caught, collected or harvested; and

g. Interfering with, obstructing, delaying or preventing an investigation, search, seizure or disposition of seized property in connection with enforcement of the HINMSA or NMSA or any regulation or permit issued under the HINMSA or NMSA.]

Section 2. Emergencies.

Where necessary to prevent or minimize the destruction of, loss of, or injury to a Sanctuary resource or quality; or minimize the imminent risk of such destruction, loss or injury, any activity, including those not listed in Section 1 of this Article, is subject to immediate temporary regulation, including prohibition. If such a situation arises, the Director of NOAA's Office of **National Marine Sanctuaries** [Ocean and Coastal Resource Management] or his or her designee shall seek to notify and consult to the extent practicable with any relevant Federal agency and the Governor of the State of [Hawaii] **Hawai'i**.

ARTICLE V. EFFECT ON LEASES, PERMITS, LICENSES, AND RIGHTS

Pursuant to section 304(c)(1) of the NMSA, 16 U.S.C. §1434(c)(1), no valid lease, permit, license, approval or other authorization issued by any Federal, State, or local authority of competent jurisdiction, or any right of subsistence use or access, may be terminated by the Secretary of Commerce, or his or her designee, as a result of this designation, or as a result of any Sanctuary regulation, if such authorization or right was in existence on the effective date of Sanctuary designation (November 4, 1992).

ARTICLE VI. ALTERATION OF THIS DESIGNATION

The terms of designation, as defined under section 304(a) of the NMSA, may be modified only by the procedures outlined in section 304(a) of the NMSA, including public hearings, consultation with interested Federal, State, and county agencies, review by the appropriate Congressional committees, and review and non-objection by the Governor of the State of [Hawaii] **Hawai'i**, and approval by the Secretary of Commerce, or his or her designee.

**HAWAIIAN ISLANDS [HUMPBACK WHALE] NATIONAL MARINE SANCTUARY – NĀ
KAI ‘EWALU BOUNDARY COORDINATES**

Appendix A to subpart Q, part 922, 15 CFR sets forth the precise boundary coordinates for the Sanctuary.

11.12. Appendix L: Photo Credits

- Cover: Jason Waltman
- 3.1 HIHWNMS
- 3.2 HIHWNMS
- 3.3 HIHWNMS
- 7.1.1.1 Paul Wong
- 7.1.1.3 Fiona Langenberger
- 7.1.2.1 Seale/HIHWNMS/NOAA Fisheries MMHSRP Permit #14682
- 7.1.2.2 Ben Richards
- 7.1.2.3 Ed Lyman
- 7.1.2.4 Ed Lyman
- 7.1.2.5 Fiona Langenberger
- 7.1.2.6 Paul Wong
- 7.1.3 Jonathan Martinez
- 7.1.4.1 Jonathan Martinez
- 7.1.4.3 Ed Lyman
- 7.1.4.5 Lyman/HIHWNMS/NOAA Fisheries MMHSRP Permit #932-1905
- 7.1.4.6 Barbara Billand
- 7.1.4.7 HIHWNMS
- 7.1.4.8 Ed Lyman
- 7.1.4.10 Carey Morishige
- 7.1.4.11 Paul Wong
- 7.2.2.2 Fiona Langenberger, Fiona Langenberger, Polynesian Voyaging Society
- 7.2.2.3 Jeff Kuwabara
- 7.2.3.1 Paul Wong
- 7.2.3.2 NOAA
- 7.2.3.3 Paul Wong, Paul Wong
- 7.4.1 Paul Wong, Ed Lyman
- 8.1 Norman Wang
- 8.1.1.1 Ray Boland
- 8.1.1.2 Derek Wang, Patrick Doyle, Andre Seale
- 8.2.1.2 Fiona Langenberger
- 8.2.2.2 Fiona Langenberger
- 8.3.1.2 Fiona Langenberger
- 8.4.1.1 Jean Souza
- 8.4.2.2 Emily Gaskin
- 8.5.2.1 Fiona Langenberger
- 8.6.1.1 Fiona Langenberger
- 8.6.2.2 Emily Gasking
- 8.6.4 Jonathan Martinez
- 8.8.1.1 Ed Lyman
- 8.8.2.2 Seale/HIHWNMS/NOAA Fisheries MMHSRP Permit #14682
- 9.2.1 Hawaii Undersea Research Lab, Tamara Paltin
- 9.2.2 Paul Wong
- 9.3.3.1 Derek Want

0	Fiona Langenberger
10.1	Alison Andrews
10.1.1	Ed Lyman
10.1.2	Fiona Langenberger
10.1.3	Fiona Langenberger
10.2	Alison Andrews
10.2.1	Fiona Langenberger
10.2.2	Hans VanTilburg
10.3	Alison Andrews
10.3.1	Jean Souza
10.3.2	Bo Petty
10.3.3	Jean Souza
10.4	Alison Andrews
10.4.1	Greg McFall
10.4.3	Fiona Langenberger
10.4.4	Paul Wong
10.5	Alison Andrews
10.5.1	Ed Lyman
10.5.2	HIHWNMS
10.5.3	Ed Lyman
10.5.4	Donna Loudon

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