UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

LETTER OF AUTHORIZATION

The National Marine Fisheries Service's Southwest Fisheries Science Center (SWFSC) is hereby authorized under section 101(a)(5)(A) of the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1371(a)(5)(A)) to take marine mammals incidental to fishery and ecosystem research activities in the California Current Ecosystem, subject to the provisions of the MMPA and the Regulations Governing Taking of Marine Mammals Incidental to Southwest Fisheries Science Center Fisheries Research in the California Current (50 CFR Part 219, Subpart A) (Regulations).

1. This Letter of Authorization (LOA) is valid from October 30, 2015 through October 29, 2020.

2. This LOA is valid only for take incidental to the specified research survey program activities in the CCE and described in the preamble to the Regulations.

3. General Conditions

   (a) A copy of this LOA must be in the possession of SWFSC, its designees, and personnel operating under the authority of this LOA.

   (b) The taking is limited to the species and numbers listed in Table 1 (attached).

   (c) Taking of these species that exceeds the numbers and/or intensity indicated in Table 1 or any taking of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this LOA.

   (d) SWFSC shall take all necessary measures to coordinate and communicate in advance of each specific survey with the National Oceanic and Atmospheric Administration's (NOAA) Office of Marine and Aviation Operations (OMAO) or other relevant parties on non-NOAA platforms to ensure that all mitigation measures and monitoring requirements described herein, as well as the specific manner of implementation and relevant event-contingent decision-making processes, are clearly understood and agreed upon.

   (e) SWFSC shall coordinate and conduct briefings at the outset of each survey and as necessary between ship's crew (Commanding Officer/master or designee(s), as appropriate) and scientific party in order to explain responsibilities, communication procedures, marine mammal monitoring protocol, and operational procedures.

   (f) SWFSC shall coordinate as necessary on a daily basis during survey cruises with OMAO personnel or other relevant personnel on non-NOAA platforms to ensure

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that requirements, procedures, and decision-making processes are understood and properly implemented.

4. Mitigation Measures

The holder of this Authorization is required to implement the following mitigation measures:

(a) When deploying any type of sampling gear at sea, SWFSC shall at all times monitor for any unusual circumstances that may arise at a sampling site and use best professional judgment to avoid any potential risks to marine mammals during use of all research equipment.

(b) SWFSC shall implement handling and/or disentanglement protocols as specified in guidance provided to SWFSC survey personnel.

(c) Trawl survey protocols:

(i) SWFSC shall conduct trawl operations as soon as is practicable upon arrival at the sampling station.

(ii) SWFSC shall initiate marine mammal watches (visual observation) no less than thirty minutes prior to sampling. Marine mammal watches shall be conducted by scanning the surrounding waters with the naked eye and rangefinding binoculars (or monocular). During nighttime operations, visual observation shall be conducted using the naked eye and available vessel lighting.

(iii) SWFSC shall implement the move-on rule. If one or more marine mammals are observed within 1 nm of the planned set location in the thirty minutes before setting the trawl gear, SWFSC shall transit to a different section of the sampling area to maintain a minimum set distance of 1 nm from the observed marine mammals. If, after moving on, marine mammals remain within 1 nm, SWFSC may decide to move again or to skip the station. SWFSC may use best professional judgment in making this decision but may not elect to conduct trawl survey activity when animals remain within the 1-nm zone.

(iv) SWFSC shall maintain visual monitoring effort during the entire period of time that trawl gear is in the water (i.e., throughout gear deployment, fishing, and retrieval). If marine mammals are sighted before the gear is fully removed from the water, SWFSC shall take the most appropriate action to avoid marine mammal interaction. SWFSC may use best professional judgment in making this decision.

(v) If trawling operations have been suspended because of the presence of marine mammals, SWFSC may resume trawl operations when practicable only when the animals are believed to have departed the 1 nm area. SWFSC may use best professional judgment in making this determination.

(vi) SWFSC shall implement standard survey protocols to minimize potential for marine mammal interactions. These may include maximum tow durations at target depth and maximum tow distance, cleaning of nets prior to deployment, and careful emptying of the trawl as quickly as possible upon retrieval.

(vii) SWFSC must install and use a marine mammal excluder device at all times when the Nordic 264 trawl net or other net for which the device is appropriate is used.

(viii) SWFSC must install and use acoustic deterrent devices whenever any trawl net is used, with two to four devices placed along the footrope and/or headrope of the net. SWFSC must ensure that the devices are operating properly before deploying the net.

(d) Longline survey protocols:

(i) SWFSC shall deploy longline gear as soon as is practicable upon arrival at the sampling station.

(ii) SWFSC shall initiate marine mammal watches (visual observation) no less than thirty minutes prior to both deployment and retrieval of the longline gear. Marine mammal watches shall be conducted by scanning the surrounding waters with the naked eye and rangefinding binoculars (or monocular). During nighttime operations, visual observation shall be conducted using the naked eye and available vessel lighting.

(iii) SWFSC shall implement the move-on rule. If one or more marine mammals are observed within 1 nm of the planned set location in the thirty minutes before gear deployment, SWFSC shall transit to a different section of the sampling area to maintain a minimum set distance of 1 nm from the observed marine mammals. If, after moving on, marine mammals remain within 1 nm, SWFSC may decide to move again or to skip the station. SWFSC may use best professional judgment in making this decision but may not elect to conduct longline survey activity when animals remain within the 1-nm zone. Implementation of the move-on rule is not required upon observation of five or fewer California sea lions.

(iv) SWFSC shall maintain visual monitoring effort during the entire period of gear deployment and retrieval. If marine mammals are sighted before the

gear is fully deployed or retrieved, SWFSC shall take the most appropriate action to avoid marine mammal interaction. SWFSC may use best professional judgment in making this decision.

(v) If deployment or retrieval operations have been suspended because of the presence of marine mammals, SWFSC may resume such operations when practicable only when the animals are believed to have departed the 1 nm area. SWFSC may use best professional judgment in making this decision.

(vi) SWFSC shall implement standard survey protocols, including maximum soak durations and a prohibition on chumming.

4. Monitoring

The holder of this Authorization is required to implement the following monitoring requirements:

(a) Visual monitoring:

(i) Dedicated marine mammal visual monitoring, conducted by trained SWFSC personnel with no other responsibilities during the monitoring period, shall occur (1) for a minimum of thirty minutes prior to deployment of trawl and longline gear; (2) throughout deployment of gear and active fishing of trawl gear; (3) for a minimum of thirty minutes prior to retrieval of longline gear; and (4) throughout retrieval of all research gear.

(ii) Marine mammal watches shall be conducted by watch-standers (those navigating the vessel and/or other crew) at all times when the vessel is being operated.

(b) SWFSC shall conduct an evaluation of the feasibility of marine mammal excluder device development for the modified-Cobb trawl net.

(c) SWFSC shall conduct an analysis of past bycatch patterns in order to better understand what factors might increase the likelihood of incidental take in research survey gear. This shall include an analysis of research trawl data for any link between trawl variables and observed marine mammal bycatch, as well as a review of historical fisheries research data to determine whether sufficient data exist for similar analysis.

(d) Training:

(i) SWFSC must conduct annual training for all chief scientists and other personnel who may be responsible for conducting dedicated marine

mammal visual observations to explain mitigation measures and monitoring and reporting requirements, mitigation and monitoring protocols, marine mammal identification, completion of datasheets, and use of equipment. SWFSC may determine the agenda for these trainings.

(ii) SWFSC shall also dedicate a portion of training to discussion of best professional judgment, including use in any incidents of marine mammal interaction and instructive examples where use of best professional judgment was determined to be successful or unsuccessful.

(iii) SWFSC shall coordinate with NMFS' Northwest Fisheries Science Center regarding surveys conducted in the California Current Ecosystem, such that training and guidance related to handling procedures and data collection is consistent.

(e) Handling procedures and data collection:

(i) SWFSC must develop and implement standardized marine mammal handling, disentanglement, and data collection procedures. These standard procedures will be subject to approval by NMFS' Office of Protected Resources (OPR).

(ii) When practicable, for any marine mammal interaction involving the release of a live animal, SWFSC shall collect necessary data to facilitate a serious injury determination.

(iii) SWFSC shall provide its relevant personnel with standard guidance and training regarding handling of marine mammals, including how to identify different species, bring an individual aboard a vessel, assess the level of consciousness, remove fishing gear, return an individual to water, and log activities pertaining to the interaction.

(iv) SWFSC shall record such data on standardized forms, which will be subject to approval by OPR. The data shall be collected at a sufficient level of detail (e.g., circumstances leading to the interaction, extent of injury, condition upon release) to facilitate serious injury determinations under the MMPA.

5. Reporting

The holder of this Authorization is required to report as follows:

(a) SWFSC shall report all incidents of marine mammal interaction to NMFS' Protected Species Incidental Take database within 48 hours of occurrence, and shall provide supplemental information to OPR upon request. Information related

to marine mammal interaction (animal captured or entangled in research gear) must include details of survey effort, full descriptions of any observations of the animals, the context (vessel and conditions), decisions made, and rationale for decisions made in vessel and gear handling.

(b) Annual reporting:

(i) SWFSC shall submit an annual summary report to OPR not later than ninety days following the end of a given year. SWFSC shall provide a final report within thirty days following resolution of comments on the draft report.

(ii) These reports shall contain, at minimum, the following:

1. Annual line-kilometers surveyed during which the EK60, ME70, SX90 (or equivalent sources) were predominant and associated pro-rated estimates of actual take;

2. Summary information regarding use of all longline (including bottom and vertical lines) and trawl (including bottom trawl) gear, including number of sets, hook hours, tows, etc., specific to each gear;

3. Accounts of all incidents of marine mammal interactions, including circumstances of the event, descriptions of any mitigation procedures implemented or not implemented and why, and, for interactions due to use of longline gear, whether the move-on rule was waived due to the presence of five or fewer California sea lions;

4. A written evaluation of the effectiveness of SWFSC mitigation strategies in reducing the number of marine mammal interactions with survey gear, including best professional judgment and suggestions for changes to the mitigation strategies, if any, and an assessment of the practice of discarding spent bait relative to interactions with longline gear, if any;

5. Final outcome of serious injury determinations for all incidents of marine mammal interactions where the animal(s) were released alive;

6. Updates as appropriate regarding the development/implementation of MMEDs and analysis of bycatch patterns; and

7. A summary of all relevant training provided by SWFSC and any coordination with NWFSC or NMFS' West Coast Regional Office.

(c) Reporting injured or dead marine mammals:

(i) In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a prohibited manner, SWFSC personnel engaged in the research activity shall immediately cease such activity until such time as an appropriate decision regarding activity continuation can be made by the SWFSC Director (or designee). The incident must be reported to OPR (Benjamin.Laws@noaa.gov) and the West Coast Regional Stranding Coordinator, NMFS. OPR will review the circumstances of the prohibited take and work with SWFSC to determine what measures are necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. The report must include the following information:

1. Time, date, and location (latitude/longitude) of the incident;

2. Description of the incident;

3. Environmental conditions (e.g., wind speed and direction, Beaufort sea state, cloud cover, visibility);

4. Description of all marine mammal observations in the 24 hours preceding the incident;

5. Species identification or description of the animal(s) involved;

6. Status of all sound source use in the 24 hours preceding the incident;

7. Water depth;

8. Fate of the animal(s); and

9. Photographs or video footage of the animal(s).

(ii) In the event that SWFSC discovers an injured or dead marine mammal and determines that the cause of the injury or death is unknown and the death is relatively recent (e.g., in less than a moderate state of decomposition), SWFSC shall immediately report the incident to OPR and the West Coast Regional Stranding Coordinator, NMFS. The report must include the information identified in 5(c)(i) of this LOA. Activities may continue while OPR reviews the circumstances of the incident. OPR will work with SWFSC to determine whether additional mitigation measures or

modifications to the activities are appropriate.

(iii) In the event that SWFSC discovers an injured or dead marine mammal and determines that the injury or death is not associated with or related to the specified activity (e.g., previously wounded animal, carcass with moderate to advanced decomposition, scavenger damage), SWFSC shall report the incident to OPR and the West Coast Regional Stranding Coordinator, NMFS, within 24 hours of the discovery. SWFSC shall provide photographs or video footage or other documentation of the stranded animal sighting to OPR.

6. This Authorization may be modified, suspended or withdrawn if the holder fails to abide by the conditions prescribed herein or contained in the Regulations, or if OPR determines the authorized taking is having more than a negligible impact on the species or stock of affected marine mammals.

PERRY GAYALDO

Donna S. Wieting
for Director,
Office of Protected Resources,
National Marine Fisheries Service.

OCT 30 2015

Date

Table 1. Authorized take numbers, by species

Species		Authorized Take		
		M/SI + Level A[1]		Level B[2]
		Trawl	Longline	
Gray whale (*Eschrichtius robustus*)		-	-	346
Humpback whale (*Megaptera novaeangliae*)		-	-	14
Minke whale (*Balaenoptera acutorostrata*)		-	-	13
Sei whale (*Balaenoptera borealis*)		-	-	1
Fin whale (*Balaenoptera physalus*)		-	-	33
Blue whale (*Balaenoptera musculus*)		-	-	24
Sperm whale (*Physeter macrocephalus*)		-	-	65
Pygmy or dwarf sperm whale (*Kogia* spp.)		-	1	42
Cuvier's beaked whale (*Ziphius cavirostris*)		-	-	146
Baird's beaked whale (*Berardius bairdii*)		-	-	34
Hubbs', Blainville's, ginkgo-toothed, Perrin's, lesser, or Stejneger's beaked whales (*Mesoplodon* spp.)		-	-	40
Bottlenose dolphin (*Tursiops truncatus*)	CA/OR/WA stock	8	1	32
	CA coastal stock	3		
Striped dolphin (*Stenella coeruleoalba*)		11	1	301
Long-beaked common dolphin (*Delphinis capensis*)		11	1	348
Short-beaked common dolphin (*Delphinis delphis*)		11	1	5,592
Pacific white-sided dolphin (*Lagenorhynchus obliquidens*)		35	-	378
Northern right whale dolphin (*Lissodelphis borealis*)		10	-	176
Risso's dolphin (*Grampus griseus*)		11	1	188
Killer whale (*Orcinus orca*)		-	-	13
Short-finned pilot whale (*Globicephala macrorhynchus*)		-	1	12
Harbor porpoise (*Phocoena phocoena*)		5	-	682
Dall's porpoise (*Phocoenoides dalli*)		5	-	1,365
Guadalupe fur seal (*Arctocephalus philippii townsendi*)		-	-	134
Northern fur seal (*Callorhinus ursinus*)	California stock	5	-	236
	Pribilof Islands/ Eastern Pacific stock			11,555
California sea lion (*Zalophus californianus*)		20	5	4,302
Steller sea lion (*Eumetopias jubatus*)		9	1	1,055
Harbor seal (*Phoca vitulina*)		9	-	910
Northern elephant seal (*Mirounga angustirostris*)		5	-	4,743
Unidentified cetacean (Family Delphinidae or Family Phocoenidae)		1	-	-
Unidentified pinniped		1	1	-

[1] These takes may be by mortality or any lesser intensity, including serious injury and Level A harassment, and are apportioned by gear type. The number represents the total authorization over five years.

[2] These takes may be by Level B harassment only. The number represents the annual take authorization for five years.