



## Letter of Authorization

Hilcorp Alaska, LLC (Hilcorp) 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 sea ice road and sea ice trail construction, maintenance, and operation in Alaska's North Slope, subject to the provisions of the MMPA and the Regulations Governing Taking of Marine Mammals Incidental to AGDC's Alaska LNG Project (50 CFR Part 217, Subpart P) (Regulations).

1. This Authorization is valid for the period December 22, 2020, through November 30, 2025.
2. This Authorization is valid only for take incidental to the specified sea ice road and sea ice trail construction, maintenance, and operation in Alaska's North Slope, as described in the preamble to the Regulations.

### 3. General Conditions

- (a) A copy of this LOA must be in the possession of Hilcorp, its designees, and work crew personnel operating under the authority of this LOA.
- (b) Hilcorp is hereby authorized to incidentally take marine mammals, by serious injury and/or mortality, and Level A and Level B harassment, as specified in Table 1.
- (c) Taking of the species that exceeds the numbers and/or intensity indicated in 3(b) or any taking of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this LOA.

4. Mitigation – The Holder of this Authorization is required to implement the following mitigation measures:

#### (a) General conditions.

- (1) Hilcorp must renew, on an annual basis, the Plans of Cooperation (POCs), throughout the life of the regulations;
- (2) Prior to initiation of sea ice road- and ice trail-related activities, project personnel associated with ice road construction, maintenance, use or decommissioning must receive annual training on implementing mitigation and monitoring measures;



(i) Personnel must be advised that interacting with or approaching any marine mammal is prohibited;

(ii) Annual training must also include reviewing Hilcorp's Wildlife Management Plan; and

(iii) In addition to the mitigation and monitoring plans, other topics in the training must include:

(A) Ringed seal identification and brief life history;

(B) Physical environment (habitat characteristics and how to potentially identify habitat);

(C) Ringed seal use in the ice road region (timing, location, habitat use, birthing lairs, breathing holes, basking, etc.);

(D) Potential effects of disturbance; and

(E) Importance of lairs, breathing holes and basking to ringed seals.

(b) General mitigation measures throughout the Ice Road/Trail Season (December through May).

(1) Ice road/trail speed limits must be no greater than 45 miles per hour (mph); speed limits must be determined on a case-by-case basis based on environmental and road conditions and ice road/trail longevity considerations;

(2) Following existing safety measures, delineators must mark the roadway in a minimum of ¼-mile increments on both sides of the ice road to delineate the path of vehicle travel and areas of planned on-ice activities (e.g., emergency response exercises). Following existing safety measures currently used for ice trails, delineators must mark one side of an ice trail a minimum of every ¼ mile. Delineators must be color-coded, following existing safety protocol, to indicate the direction of travel and location of the ice road or trail;

(3) Corners of rig mats, steel plates, and other materials used to bridge sections of hazardous ice, must be clearly marked or mapped using GPS coordinates of the locations;

(4) Personnel must be instructed to remain in the vehicle and safely continue, if they encounter a ringed seal at a distance while driving on the road;

(c) Hilcorp must implement the following additional mitigation measures after March 1st:

- (1) In addition to the general mitigation measures listed in 4(b), the following measures must also be implemented after March 1st:
- (2) Ice road/trail construction, maintenance and decommissioning must be performed within the boundaries of the road/trail and shoulders, with most work occurring within the driving lane. To the extent practicable and when safety of personnel is ensured, equipment must travel within the driving lane and shoulder areas.
- (3) Blading and snow blowing of ice roads must be limited to the previously disturbed ice road/shoulder areas to the extent safe and practicable. Snow must be plowed or blown from the ice road surface.
- (4) In the event snow is accumulating on a road within a 50-m (164-ft) radius of an identified downwind seal or seal lair, operational measures must be used to avoid seal impacts, such as pushing snow further down the road before blowing it off the roadway. Vehicles must not stop within 50 m (164 ft) of identified seals or within 150 m (500 ft) of known seal lairs.
- (5) To the extent practicable and when safety of personnel is ensured, tracked vehicle operation must be limited to the previously disturbed ice trail areas. When safety requires a new ice trail to be constructed after March 1st, construction activities must be conducted only during daylight hours with good visibility.
- (6) Ringed seal structures must be avoided by a minimum of 50 m (164 ft) during ice testing and new trail construction.
- (7) Once the new ice trail is established, tracked vehicle operation must be limited to the disturbed area to the extent practicable and when safety of personnel is ensured.
- (8) If a seal is observed on ice within 50 m (164 ft) of the centerline of the ice road/trail, the following mitigation measures must be implemented:
  - (i) Construction, maintenance or decommissioning activities associated with ice roads and trails must not occur within 50 m (164 ft) of the observed ringed seal, but may proceed as soon as the ringed seal, of its own accord, moves farther than 50 m (164 ft) distance away from the activities or has not been observed within that area for at least 24 hours; and
  - (ii) Transport vehicles (i.e., vehicles not associated with construction, maintenance or decommissioning) may continue their route within the designated road/trail without stopping.

5. Monitoring and Reporting – The holder of this Authorization is required to implement the following monitoring and reporting requirements:

(a) All marine mammal monitoring must be conducted in accordance with Hilcorp's Marine Mammal Mitigation and Monitoring Plan (4MP). This plan may be modified throughout the life of the regulations upon NMFS review and approval.

(b) General monitoring measures will be implemented through the entire ice road/trail season including during construction, maintenance, use and decommissioning.

(1) If a ringed seal is observed within 50 m (164 ft) of the center of an ice road or trail, the operator's Environmental Specialist must be immediately notified with the information provided in section 5(e) below.

(i) The Environmental Specialist must relay the seal sighting location information to all ice road personnel and the company's office personnel responsible for wildlife interaction, following notification protocols described in the company-specific Wildlife Management Plan. All other data will be recorded and logged.

(ii) The Environmental Specialist or designated person must monitor the ringed seal to document the animal's location relative to the road/trail. All work that is occurring when the ringed seal is observed and the behavior of the seal during those activities must be documented until the animal is at least 150 ft away from the center of the road/trail or is no longer observed.

(c) Monitoring measures that begin after March 1st:

(1) In addition to the general monitoring measures listed in 5(b) above, the following measures must also be implemented after March 1st:

(2) If an ice road or trail is being actively used, under daylight conditions with good visibility, a dedicated observer (not the vehicle operator) must conduct a survey along the sea ice road/trail to observe if any ringed seals are within 150 m (500 ft) of the roadway corridor. The following survey protocol must be implemented:

(i) Surveys must be conducted every other day during daylight hours;

(ii) Observers for ice road activities must have received the training described in 4(a)(2) and understand the applicable sections of the Wildlife Interaction Plan;

(iii) Observers for ice road activities must be capable of detecting, observing and monitoring ringed seal presence and behaviors, and accurately and completely recording data;

(iv) Observers must have no other primary duty than to watch for and report observations related to ringed seals during this survey; and

(v) If weather conditions become unsafe, the observer may be removed from the monitoring activity.

(3) If a ringed seal structure (i.e., breathing hole or lair) is observed within 150 ft of the ice road/trail, the location of the structure must be reported to the Environmental Specialist and:

(i) An observer must monitor the structure every six hours on the day of the initial sighting to determine whether a ringed seal is present.

(ii) Monitoring for the seal must occur every other day the ice road is being used unless it is determined the structure is not actively being used (i.e., a seal is not sighted at that location during monitoring).

(d) Engaging with subsistence hunters for monitoring recommendations

(1) Hilcorp must engage local hunters through the Ice Seal Committee point of contact to gather recommendations on methods for ringed seal detection along sea ice roads/trails within the exposure areas.

(2) Hilcorp must incorporate these recommendations into Hilcorp's training materials provided to personnel responsible for monitoring for ringed seals along sea ice roads/trails.

(e) Reporting requirement at the end-of-season

(1) A final end-of-season report compiling all ringed seal observations must be submitted to NMFS Office of Protected Resources within 90 days of decommissioning the ice road/trail. The report must include:

(i) Date, time, location of observation;

(ii) Ringed seal characteristics (i.e., adult or pup, behavior (avoidance, resting, etc.));

(iii) Activities occurring during observation including equipment being used and its purpose, and approximate distance to ringed seal(s);

(iv) Actions taken to mitigate effects of interaction emphasizing:

(A) which mitigation and/or monitoring measures were successful;

(B) which mitigation and/or monitoring measures may need to be improved to reduce interactions with ringed seals;

(C) the effectiveness and practicality of implementing mitigation and monitoring measures;

(D) any issues or concerns regarding implementation of mitigation and/or monitoring measures; and

(E) potential effects of interactions based on observation data.

(v) Proposed updates (if any) to Wildlife Interaction Plan(s) or Mitigation and Monitoring Measures.

(vi) The methods used for detection of seals and seal structures with an assessment of their effectiveness.

(2) In the event a seal is killed or seriously injured by ice road/trail activities, Hilcorp must immediately cease the specified activities and report the incident to the NMFS Office of Protected Resources (301-427-8401) and Alaska Region Stranding Coordinator (877-925-7773). The report must include the following information:

(i) Time and date of the incident;

(ii) Description of the incident;

(iii) Environmental conditions (e.g., cloud over, and visibility);

(iv) Description of all marine mammal observations in the 24 hours preceding the incident;

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

(vi) Fate of the animal(s); and

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

(3) In the event ice road/trail personnel discover a dead or injured seal but the cause of injury or death is unknown or believed not to be related to ice road/trail activities, Hilcorp must report the incident to the NMFS Office of Protected Resources (301-427-8401) and Alaska Region Stranding Coordinator (877-925-7773) within 48 hours of discovery.

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

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

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Date

**Table 1. Authorized numbers of take by Level A harassment / serious injury / mortality and Level B harassment over 5 years of the LOA**

Species	Level A harassment / serious injury / mortality	Level B harassment
Ringed seal	6	80