



WILDLIFE INTERACTION AND AVOIDANCE PLAN NORTH SLOPE FIELDS, ALASKA

November 2018







Revision Date: 11/1/2018

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REVIEW AND REVISION LOG

Revision No.	Revision Date	Annual Review Y/N	Approval	Revision Description	AMOC No.
0	November 2018	Initial Issue	Beth Sharp	Initial Issue	12398

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ACRONYMS AND ABBREVIATIONS

AAC Alaska Administrative Code

ACS Alaska Clean Seas

ADF&G Alaska Department of Fish and Game

ADNR Alaska Department of Natural Resources

AS Alaska Statute

ASLC Alaska Sea Life Center

ASVL Alaska State Virology Laboratory

BPXA BP Exploration Alaska, Inc. **CFR** Code of Federal Regulations

DO&G Division of Oil and Gas

EH&S Environmental, Health and Safety

EnviroTech **Environmental Technicians**

ESA **Endangered Species Act**

Hilcorp Hilcorp Alaska, LLC

LOA Letter of Authorization

MBTA Migratory Bird Treaty Act

MMPA Marine Mammal Protection Act **NMFS** National Marine Fisheries Service

NSB North Slope Borough

PPE personal protective equipment

SDI satellite drilling island

United States Fish and Wildlife Service **USFWS**

USGS United States Geological Survey

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1. INTRODUCTION

This Wildlife Interaction and Avoidance Plan provides instructions and guidance for Hilcorp Alaska, LLC (Hilcorp) employees and contractors when they encounter live, dead, injured, sick, stranded, orphaned, or trapped animals at Hilcorp's North Slope Alaska facilities.

This document presents instructions and guidance specific to the North Slope, but it is not intended to be a stand-alone resource. The "General Wildlife Compliance Summary for Hilcorp Employees and Contractors" document ("Appendix A" to the *Hilcorp Alaska Master Wildlife Compliance Procedure* [AK-13252]) and the "Wildlife Reporting Matrix" and forms ("Appendix C" to the *Hilcorp Alaska Master Wildlife Compliance Procedure* [AK-13252]) are additional resources that should be used in conjunction with this asset-specific plan. The "Wildlife Reporting Matrix" is comprised of several matrices organized by species or group of species designed to help determine which, if any, regulatory agencies need to be contacted for various wildlife situations that may occur at Hilcorp facilities. The matrices are referenced throughout this document.

Hilcorp maintains facility-specific wildlife interaction and avoidance plans for all of its Alaska facilities. Refer to the *Wildlife Interaction and Avoidance Plan, Kenai National Wildlife Refuge, Alaska* (Beaver Creek, Birch Hill, Sterling, Swanson River, West Fork, and Wolf Lake Fields) (AK-13249) and the *Wildlife Interaction and Avoidance Plan, Kenai and Cook Inlet Facilities* (Kenai Gas Field, Cannery Loop, Deep Creek Unit, Kasilof Pad, Nikolaevsk Unit, Ninilchik Unit, West Side Gas Field [Ivan River, Stump Lake, Lewis River, and Pretty Creek units], Beluga River Unit, Trading Bay Production Facility, Granite Point Tank Farm, Drift River Terminal, Middle Ground Shoal Facility, and Cook Inlet offshore platforms) (AK-13251) for Kenai National Wildlife Refuge and Kenai/Cook Inlet facilities, respectively.

Hilcorp also maintains a separate plan titled *Bear Interaction, Mitigation, and Monitoring Plan for Hilcorp Alaska, LLC Areas of Operation, North Slope and Kenai and Cook Inlet Facilities, Alaska* (AK-13250) that addresses interaction, avoidance and hazing requirements associated with black bears, brown and grizzly bears, and polar bears.

Fields covered in this plan include Milne Point Unit, Northstar, Endicott, and Liberty. A general location map is included as Figure 1 – North Slope Overview Map.

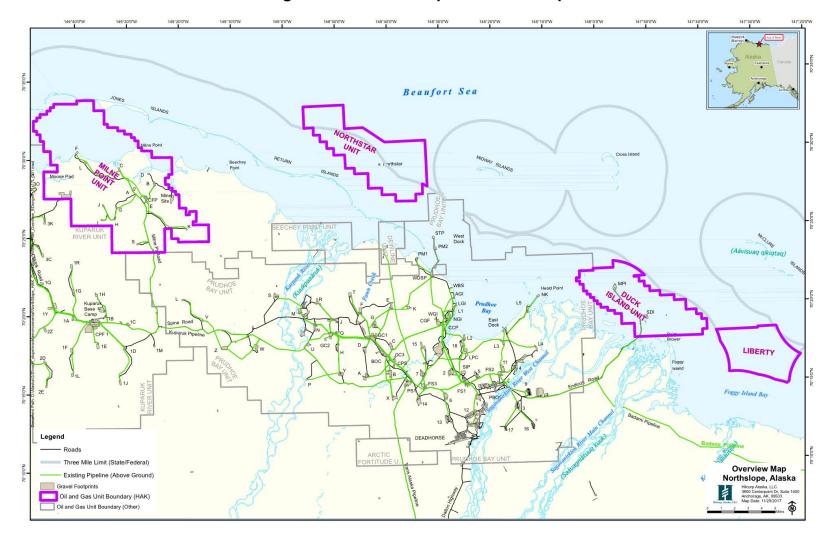
All personnel are expected to adhere to the guidance presented in this plan and to operate in accordance with applicable laws and permits. In any situation where these guidelines appear inconsistent with laws or permits, laws and permit requirements supersede guidance provided in this plan.

Periodically, some in-field activities may trigger the need for more specific guidance. A project-specific wildlife plan or addendum can be prepared in coordination with the Hilcorp Wildlife and Habitat Specialist to cover these needs.



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Figure 1 North Slope Overview Map





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1.1 Non-Interference Policy

Hilcorp maintains a non-interference policy for all wildlife. Sport hunting and trapping activities are not authorized for Hilcorp employees or contractors within the North Slope oil fields. If a wildlife interaction is observed, or a wildlife concern arises, contact security personnel, the Alaska Clean Seas (ACS) Environmental Technicians (EnviroTech), the North Slope Environmental Specialists or the Hilcorp Wildlife and Habitat Specialist. These individuals will make the appropriate contacts based upon the situation and guidance provided in this document.

1.2 Regulatory Criteria

The Alaska Department of Natural Resources (ADNR) Division of Oil and Gas (DO&G) has authority to impose conditions on state leases to ensure resource use is in the state's best interest, in accordance with Alaska Statute (AS) Title 38, Chapter 05, Section 035(e). ADNR DO&G has developed area-wide mitigation measures to mitigate potential adverse effects of lease-related activities. The North Slope Mitigation Measures require lessees to prepare and implement a human-bear interaction plan to minimize human-bear conflict. In addition, North Slope lessees must comply with all applicable local, state and federal codes, statutes and regulations, as amended. They must also comply with ADNR area plans and recreational rivers plans and Alaska Department of Fish and Game (ADF&G) refuge plans, critical habitat area plans, and sanctuary area plans within which a lease area is located (ADNR, 2008). This Wildlife Interaction and Avoidance Plan complies with the North Slope Mitigation Measures.

Applicable wildlife-related regulatory criteria include the following:

Federal:

- Bald and Golden Eagle Protection Act: Prohibits "taking" of bald eagles, including their parts, nests, or eggs. "Take" includes killing, wounding, or simply disturbing eagles.
- Migratory Bird Treaty Act (MBTA): Stipulates it is unlawful without a waiver to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect birds listed as migratory birds (most birds in Alaska are migratory).
- Endangered Species Act (ESA): Protects endangered and threatened animals and plants and their habitats. Permits are issued for scientific research and enhancement activities, incidental take, and conservation activities on private lands. Stipulates it is unlawful to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect animals and plants listed under the ESA.
- Marine Mammal Protection Act (MMPA): Prohibits harassment in the form of any act of pursuit, torment, or annoyance with potential to injure or disturb an animal by causing a disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.

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State:

- 5 Alaska Administrative Code (AAC) 92.230 Feeding of Game Prohibited: Prohibits feeding of game, including intentional and unintentional feeding of wildlife (i.e., any mismanaged waste that may attract and allow wildlife access to it).
- 5 AAC 92.410 Taking game in defense of life or property: Prohibits a person from taking game in defense of life or property unless absolutely unavoidable and as last resort.
- 5 AAC 92.033 Public Safety: Requires anyone engaging in hazing, aversive conditioning, live trapping, or lethal taking of wildlife have a public safety permit.
- 11 AAC 83.158 Plans of Operation: Plans of Operation must address minimization of adverse effects on fish and wildlife habitats. Completion and compliance with a mitigation measures analysis form is also required.
- AS 16.05.841-871 Fish Habitat: Any activity or project conducted below the ordinary high water mark of an anadromous stream requires a Fish Habitat Permit (e.g., installation of culverts); ADF&G also applies this to non-anadromous streams.
- AS 16.20.185 &190 Alaska Endangered Species: ADF&G must take measures to preserve the
 natural habitat of fish and wildlife species recognized as threatened with extinction; activities
 must comply with Alaska Endangered Species stipulations.

Local:

- North Slope Borough Code of Ordinances Title 19-Zoning: Land management principles, procedures, and mitigation measures that Hilcorp is required to follow for development in the Borough.
- Alaska Eskimo Whaling Commission Conflict Avoidance Agreement: This is not a legally binding regulation or law but is an agreement with AEWC as to how Hilcorp conducts inwater work to avoid interfering with the North Slope subsistence whaling hunts.

1.3 Oil Spill Response

Wildlife interactions associated with an oil spill (either exposure to oil or injury as a result of spill cleanup activities) will be under the direction of the Incident Command Team during an oil spill response. These actions are not addressed in this document. Detailed requirements for wildlife response during a major spill can be found in "Annex G – Alaska Wildlife Protection Guidelines" of the Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases (Unified Plan). For small spills, the ACS EnviroTech is authorized to handle some wildlife (e.g., birds) under existing permits.

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1.4 Hilcorp Contact Information

A list of Hilcorp contacts for wildlife-related issues or questions that arise at Hilcorp North Slope facilities is provided in Table 1: Hilcorp North Slope Wildlife Contacts. Additionally, the "Wildlife Reporting Matrix" ("Appendix C" to the *Hilcorp Alaska Master Wildlife Compliance Procedure* (AK-13252) includes guidance about who to contact during a wildlife-related situation, along with Hilcorp and agency contact information.

Table 1 Hilcorp North Slope Wildlife Contacts

Contact Title	Name/Location	Phone	Email	
Wildlife and Habitat Specialist	Beth Sharp	907-777-8436 (office) 907-242-5700 (cell)	esharp@hilcorp.com	
Site.	Milne Point Dispatch	907-670-3300	AlaskaNS-Milne- SecurityDesk@hilcorp.com	
Security	Endicott Dispatch	907-659-6800 (or 6516	AlaskaNS-Endicott- SecurityDesk@hilcorp.com	
North Slope Asset	Deb Heebner	907-782-7431 (cell)	AlaskaNS-	
Environmental Specialist	Stefan Gogosha	907-744-3609 (cell)	EnvironmentalSpecialist@hilcorp.com	
EH&S Specialist –	John Rothbarth	907-659-6666 (office)	AlaskaNS-EHS-	
Endicott & Northstar	Jon Wagner	907-659-6666 (office)	Specialist@hilcorp.com	
EH&S Specialist – Milne	Sarra Ghiassi	907-670-3332 (office) 207-415-8000 (cell)	AlaskaNS-Milne-EHS-	
Point	Thadius Eby	907-670-3332 (office) 907-744-1737 (cell)	Specialists@hilcorp.com	
	Endicott	907-659-6810	AlaskaNS-Endicott-EnviroTech- ACS@hilcorp.com	
Alaska Clean Seas (ACS) EnviroTech	Northstar	907-670-3508	AlaskaNS-Northstar-EnviroTech- ACS@hilcorp.com	
	Milne Point	907-670-3473	nhermon@hilcorp.com -ORrmurray@hilcorp.com	

1.5 Training

The more educated site personnel are about working safely in areas with wildlife populations, the less potential there is for adverse human-wildlife interactions. Lead Operators will address wildlife safety as part of their facility orientation, and all supervisors will address wildlife safety during tailgate meetings as needed to reinforce awareness and communicate recent sightings and identified den locations. Environmental bulletins that focus on wildlife compliance and safety are periodically distributed. These bulletins should be used to instigate conversations about wildlife issues.



1.6 Penalties

Personnel caught feeding wildlife or leaving food and waste outside of designated areas will receive a verbal warning. Depending upon the severity of non-compliance with this plan, or after repeated offenses, personnel will be asked to leave the facility, either for a temporary period of time or permanently.

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2. GENERAL GUIDANCE

Human activity has the potential to attract wildlife, particularly through improper food and waste handling activities. Garbage and dumpsters, in particular, are major attractants for wildlife, especially bears. Potential human-caused impacts can range from disturbance of wildlife habitat or behavior to wildlife injury or death. Wildlife can impact Hilcorp operations by posing a threat to the safety of site personnel, causing property damage, and delaying work. This section identifies procedures and practices site workers are expected to follow to prevent human-wildlife encounters and address encounters if they occur. Species-specific guidance is presented in following sections.

2.1 Protect Both Workers and Wildlife

Potential for wildlife, especially bears, to come into contact with Hilcorp operations still exists even if all precautions are taken to eliminate attractants. In these situations, the primary concern is to maintain personnel safety. For this reason, avoidance of all interactions to the extent possible in order to minimizing potential conflict is necessary. Site personnel must take ownership of their personal safety, including implementing the following practices:

- Personnel new to a field will be briefed on field-specific procedures for communicating
 wildlife sightings to other onsite personnel and precautions to be taken to reduce potential for
 an encounter.
- Communicate animal observations, as well as potential attractants such as animal carcasses, to other field personnel according to field-specific procedures.
- Do not hunt, trap, or fish while on duty.
- Do not approach or crowd wildlife. The more distance between you and the animal, the better for conflict avoidance.
- Never feed wildlife.
- If you observe an animal of concern in an area of the field routinely accessed or visited by personnel or you observe an animal demonstrating aggressive behavior, immediately radio the sighting to other onsite personnel so all potentially affected personnel can alter their work activities accordingly to avoid interaction. Depending on the distance between the animal and activities, this may mean retreating to the safety of vehicles and buildings.
- If you observe an animal of concern in more remote areas of the field and even if it is not demonstrating aggressive behavior, notify your supervisor, who, in turn, should notify the Lead Operator, so the sighting can be communicated to other personnel at the next safety meeting.

2.2 Prevent Food Association

Proper food waste management is critical in order to prevent wildlife from associating human activity with a food source. The single biggest contribution an individual can make is to handle food waste correctly. Therefore, extra care is necessary to keep food properly stored and food



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waste properly disposed of so animals cannot gain access. If animals do not find food, they will usually avoid human activities. The following procedures will help limit the potential for wildlife to associate humans and facilities with food:

- Segregate food waste from other wastes and dispose of into wildlife-resistant dumpsters or storage containers (e.g., **not** in open-top containers, unsecured vehicles, or open truck beds).
- Vehicle operators are responsible for the cleanliness of their truck beds and are to keep windows and doors closed if food or food waste is inside unoccupied vehicles.
- Camp and other facility trash from offices, break rooms, living quarters, and kitchens will be collected and handled as *food waste*, and will be segregated from oily waste. This will ensure cups, food remnants, and other attractants are controlled.
- Use wildlife-proof dumpsters for food waste and stage them in areas with good visibility and away from high traffic areas.
- Use only designated receptacles for food waste inside facilities or those that are secure from wildlife access.
- Some chemicals (e.g., glycol) can smell like food and be toxic to animals. Be sure to store chemicals in secure containers.
- At facilities that transfer food waste to a local landfill, waste will remain inside buildings or in wildlife-proof dumpsters until transferred.
- Take extra caution at onsite incinerators to eliminate food odors by storing food waste in closed containers and incinerating the waste as soon as possible, if not immediately.

The following sections describe wildlife species that may occur in the facility areas or fields covered by this Wildlife Interaction and Avoidance Plan. Hilcorp has a non-interference policy for all wildlife. Sport hunting and trapping activities are not authorized within the North Slope oil fields. When a wildlife interaction is observed, or a wildlife concern arises, contact the Asset Team Environmental Specialists or Hilcorp Wildlife and Habitat Specialist. The Wildlife and Habitat Specialist will make appropriate contacts based upon the situation and guidance provided in this document.

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SEAL AND WHALE REPORTING AND RESPONSE

All marine mammals are protected by the Marine Mammal Protection Act (MMPA), which gives these animals the highest protection under federal law. Some marine mammals are also listed as threatened or endangered under the Endangered Species Act (ESA). Whales and seals currently listed under the ESA that may occur in the Beaufort Sea include bowhead whales, ringed seals, and bearded seals. Sea lions and sea otters1 occur in Cook Inlet. Certain population segments of Steller sea lions and sea otters that may occur in Cook Inlet are listed under the ESA.

9.1 **Procedure**

Without consultation with the National Marine Fisheries Service (NMFS) or USFWS, personnel should not under any circumstances approach a marine mammal, whether dead or alive. When determining the course of action for handling and reporting seal, whale, sea lion or sea otter injuries or mortalities at a Hilcorp facility, refer to Section 9.2 and "Matrix G: Seal – Whale - Sea Lions" in the "Wildlife Reporting Matrix" ("Appendix C" to the Hilcorp Alaska Master Wildlife Compliance Procedure [AK-13252]).

Always notify the Wildlife and Habitat Specialist prior to conducting sound-generating activities (e.g., seismic work, seafloor profiling, pile driving) near or in the ocean. In some cases, an Incidental Take Authorization² may be needed from NMFS or USFWS³ prior to conducting the sound-generating activity. This type of authorization may require 12 to 24 months to obtain depending on the specific activities proposed and species that may be exposed.

Vessels ranging from small support vessels to large ocean-going barges have the potential to disturb, injure or kill marine mammals. For mitigation measures specific to vessels, please refer to Section 9.1.1 below.

Ice road and trail construction, maintenance, and use between December and May could result in interactions with ringed seals or their habitat (i.e., breathing holes or birthing lairs). Hilcorp's Ice Road and Trail Best Management Practices (BMPs) for North Slope Areas of Operation is the foremost guidance for avoiding and minimizing interactions with ringed seals. Please refer to Section 9.1.2 and "Appendix D – Ice Road and Trail Best Management Practices" for specific detail on ice road and trail BMPs.

¹ Sea otters, polar bears and Pacific walrus are under the jurisdiction of USFWS. NMFS has jurisdiction over all other marine mammals.

² An Incidental Take Authorization may be in the form of an Incidental Harassment Authorization (IHA) or a Letter of Authorization (LOA). An IHA is in effect for activities occurring up to one year while an LOA applies to activities that may require up to five years to complete. For additional information on IHAs and LOAs, please reach out to the Wildlife and Habitat Specialist.

³ Sea otters only.

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9.1.1 Marine Vessels and Vessel Traffic

Vessel captains will watch for and avoid all marine mammals, will reduce speeds if a marine mammal is seen, and will report sightings to other vessels operating in the area. In addition vessel operators will check the waters immediately adjacent to the vessel(s) to ensure that no whales will be injured when the vessel's propellers are engaged.

All vessels shall reduce speed to less than 5 kn (9.26 km/hr) prior to coming within 900 ft (274 m) of whales. The reduction in speed will vary based on the situation but must be sufficient to avoid interfering with the whales. Those vessels capable of steering around groups of whales should do so. Vessels may not be operated in such a way as to separate members of a group of whales from other members of the group.

All vessels shall avoid multiple changes in direction and speed when within 274 m (300 yards) of whales and also operate the vessel(s) to avoid causing a whale to make multiple changes in direction. When visibility is reduced, such as during inclement weather (rain, fog) or darkness, adjust vessel speed will be adjusted accordingly to avoid the likelihood of injury to whales. Vessels and barges will not allow tow lines to remain in the water and no trash or other debris will be thrown overboard, thereby reducing the potential for marine mammal entanglement.

If an encounter causes an unforeseen injury or mortality of a marine mammal, the vessel captain will report the incident as described in Section 9.2 using the specific contact numbers and procedures found in "Matrix G: Seal – Whale - Sea Lions" in the "Wildlife Reporting Matrix" ("Appendix C" to the *Hilcorp Alaska Master Wildlife Compliance Procedure* [AK-13252]).

9.1.2 Ice Roads and Ice Trails

Ice road construction and establishment of new ice trails should be avoided after March 1st in order to minimize potential interactions with ringed seals and their lairs. If ice road construction or relocation of an ice trail is necessary after March 1st, notify the Hilcorp Wildlife and Habitat Specialist prior to construction activities to determine the appropriate actions to avoid ringed seals and seal lairs. All construction, maintenance and use of sea ice roads and trails over water depths of 10 ft or more will be conducted following the Alaska North Slope Ice Road and Ice Trail BMPs in Appendix D.

9.1.2.1 Seal Surveys

After March 1st, if an ice road or trail is being actively used4, under daylight conditions with good visibility, a dedicated observer (not the vehicle operator) will conduct a survey every other day along the sea ice road(s) to observe if any ringed seals are within 500 ft of the roadway corridor (see additional details in BMPs provided in Appendix D). The observer will have received wildlife training applicable to seal observations as described in Section 1 of the Alaska North Slope Ice Road and Ice Tail BMPs. They must be capable of detecting, observing and monitoring ringed seal

⁴ Any days when there is no traffic on an ice road, monitoring for ringed seals will not occur in order to minimize potential for interactions with seals.



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presence, and behavior and must be able to follow the reporting requirements described in Section 9.2.1. The dedicated observer can be a member of the security staff, ACS Environmental Technician, North Slope Environmental Specialist or the Wildlife and Habitat Specialist. Should the need arise, Hilcorp may choose to contract a dedicated wildlife observer, who also will be required to have applicable wildlife and wildlife observation training described in the BMPs.

9.2 Reporting Procedures

All encounters with seals or whales must be reported to the Hilcorp North Slope Environmental Specialist or Wildlife and Habitat Specialist, who will determine the appropriate communications and actions (as needed). In addition to general reporting requirements, specific reporting requirements for ringed seal encounters on or within 150 feet of ice roads or trails are provided in Section 9.2.1.

"Matrix G: Seal – Whale - Sea Lions" in the "Wildlife Reporting Matrix" ("Appendix C" to the *Hilcorp Alaska Master Wildlife Compliance Procedure* [AK-13252]) provides all necessary contact and reference information applicable to the instances described in the following subsections.

9.2.1 Seal Encounters on Sea Ice Roads

Personnel observing seals during operations and maintenance or during dedicated surveys will:

- Remain in the vehicle.
- Report the date, time, location and specific details of the observation to the Hilcorp Environmental Specialist as soon as practicable after the observation occurs.
- The Environmental Specialist will relay the seal sighting location information to all ice road personnel and the company's office personnel responsible for wildlife interaction and will log all data and sighting or encounter information.
- The Environmental Specialist or designated person will 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 will be documented until the animal is at least 150 ft from the center of the road/trail or is no longer observed (see Section 2 in Appendix D).
- The Environmental Specialist will contact the Hilcorp Wildlife and Habitat Specialist in Anchorage and National Marine Fisheries Service (NMFS). Detailed reporting procedures are provided in Matrix G: Seals, Whales, Sea Lions and Sea Otters.
- A final end-of-season report compiling all seal observations will be submitted to NMFS Alaska Region Protected Resources Division (greg.balogh@noaa.gov) and NMFS Office of Protected Resources Permits Division (jaclyn.daly@noaa.gov) within 90 days of decommissioning the ice road/trail (see Section 5 in Appendix D).
- In the unanticipated event a seal is killed or seriously injured by ice road activities, NMFS will be notified immediately (see contact information above).

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• In the event ice road 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 activities, NMFS will be notified within 48 hours of discovery (see contact information above).

9.2.2 Dead Seals and Whales

Do NOT attempt to move or touch the animal. Animals can only be picked up by an authorized individual. As with all out-of-ordinary incidents in the field, the person who encountered the animal will immediately notify either security who will notify the North Slope Environmental Specialist or the person encountering the animal will notify the North Slope Environmental Specialist directly. The North Slope Environmental Specialist will contact the Hilcorp Wildlife and Habitat Specialist in Anchorage and National Marine Fisheries Service (NMFS) immediately via the online stranding report form or the 24-hour Stranding Hotline, both listed in Matrix G: Seals, Whales, Sea Lions and Sea Otters.

NMFS requires written approval for moving or salvaging such animals on a case-by-case basis and coordination of any sampling or salvaging activities (as often requested) with NMFS. Be aware that touching seals or whales can result in serious infection. A condition referred to as "seal finger" (also known as "sealer's finger" or "blubber finger") may occur following handling of seals. The infection is generally localized, and treatment with antibiotics has proved successful in most cases. If asked to collect samples or move a carcass, wear surgical gloves. If any unusual symptoms occur after handling a seal or whale, seek medical attention and contact Hilcorp's medical personnel.

9.2.3 Live Stranded or Injured Seals and Whales

Do NOT attempt to approach the animal. Field personnel (or Security) should immediately report the occurrence to the North Slope Environmental Specialist, who will contact the Wildlife and Habitat Specialist and NMFS immediately. In all instances, the North Slope Environmental Specialist will contact the NMFS Stranding Hotline at 1-877-925-7773 (877-9-AKR-PRD), or if the NMFS hotline cannot be reached, they will call the Alaska Sea Life Center (ASLC) Stranding Hotline at 1-888-774-7325 (888-774-SEAL). The North Slope Environmental Specialist will report the stranding to NMFS using the online Marine Mammal Stranding Form per Hilcorp's Marine Mammal Stranding Reporting Instructions (AK-13190).

9.3 Key Documents/Tools/References

Hilcorp Marine Mammal Stranding Reporting Form Instructions http://filetrail.hilcorp/FileTrail/DataManager/Item.aspz?ID=1795384

USFWS Marine Mammal Stranding Webpage

https://www.fws.gov/alaska/fisheries/mmm/strandings.htm

NMFS Alaska Marine Mammal Stranding Network

https://alaskafisheries.noaa.gov/pr/strandings

Hilcorp Ice Road and Trail Best Management Practices (BMPs)

Appendix D

Revision Number: 00

North Slope Fields, Alaska

APPENDIX D – ICE ROAD AND TRAIL BEST MANAGEMENT PRACTICES FOR NORTH SLOPE AREAS OF OPERATION



Alaska North Slope

Ice Road and Ice Trail Best Management Practices

Best Management Practices Introduction and Definitions

The following Best Management Practices (BMPs) and monitoring measures are applicable to operations on the Alaska North Slope. They are proposed for the construction and maintenance of sea ice roads and sea ice trails in areas where water depth is greater than 10 feet (ft) (the minimum depth required to establish ringed seal lairs) as well as any open leads in the sea ice requiring a temporary bridge during the ice road season. These BMPs do not apply to land-based ice roads/trails or ice roads/trails crossing lakes. These measures are intended to avoid and minimize interactions with ringed seals. For the purposes of these BMPs, sea ice roads and trails are generally defined1 as follows:

- · Sea Ice Road: a route across sea ice created by clearing and grading snow, then pumping seawater through drilled holes in the sea ice until the desired thickness is achieved. The top layer is typically strengthened by a fresh water cap of ice.
- Sea Ice Trail: a route across sea ice created, used and maintained by equipment such as Tuckers, PistenBullys, snow machines or similar tracked equipment. Sea ice trails do not require seawater flooding

These BMPs and monitoring activities are organized into the following categories:

Section 1: Wildlife Training

Section 2: General BMPs Implemented Throughout the Ice Road Season

Section 3: BMPs Implemented Before March 1st Section 4: BMPs Implemented After March 1st

Section 5: Reporting

Section 1: Wildlife Training

Prior to initiation of sea ice road- and ice trail-related activities, project personnel associated with ice road construction, maintenance, use or decommissioning (i.e., ice road construction workers, surveyors, security personnel, and the environmental team) will receive annual training2 on these BMPs. Personnel are advised that interactions with, or approaching, any wildlife is prohibited. Annual training also includes reviewing the company's Wildlife Management Plan3. In addition to the BMPs, other topics in the training will include:

- Ringed Seal Identification and Brief Life History
- Physical Environment (habitat characteristics and how to potentially identify habitat)

¹ Specific construction techniques may vary depending on site-specific conditions. However, this description generally describes the process by which a sea ice road is constructed.

² Training rosters can be made available to audit if requested.

³ May also be referred to as a Wildlife Interaction Plan.



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