Determination of NEPA Adequacy
Hilcorp Alaska, LLC G&G Survey/Ancillary Activity
April 2020

This document reflects the Bureau of Ocean Energy Management (BOEM), Alaska Office's determination of NEPA adequacy (DNA) regarding the Cook Inlet Lease Sale 244 Environmental Impact Statement's (LS244 EIS) consideration of the activities described in Hilcorp Alaska, LLC's (HAK or Hilcorp) 2020 Lower Cook Inlet Shallow Hazard Survey (Proposed Action). The Proposed Action includes both on and off-lease activities, thus, it is described in two HAK-submitted documents: a permit application to conduct geological and geophysical exploration off-lease (G&G permit 20-01) submitted to BOEM on February 25, 2020 and revised on March 27, 2020 to extend its operations window through October 31, 2020; and a notice of Ancillary Activities (AA014) covering on-lease activities, submitted to BOEM on February 5, 2020. HAK has requested that the operations window of AA014 be extended commensurate to its permit application.

HAK must conduct a shallow hazards assessment for each of its proposed wells and submit the assessment in an exploration plan per 30 CFR § 550.214. NTL 2005-A01 requires the evaluation of the entire area around a well site to a distance of 2400 meters (approximately 1.5 miles). Hilcorp's proposed well site locations require them to survey off-lease areas in order to meet the areal requirements of NTL 2005-A01. The G&G permit action area covers approximately 88 square miles over 5 potential well locations and includes the same suite of geophysical tools Hilcorp proposes to use in the on-lease portions of the shallow hazards evaluation. Work on the evaluation would be conducted between mid-April and October 31, 2020.

As these actions together constitute a single proposed action under NEPA (they are "connected" as per 40 CFR § 1508.25(a)(1)), both are considered one Proposed Action in this DNA. Subsequent references to the "Proposed Action" and "Cook Inlet Shallow Hazard Survey" in this document do not distinguish between the activities described in the G&G permit 20-01 application and the Ancillary Activities Notice.

Background

BOEM prepared the LS244 EIS to disclose the environmental impacts of conducting a lease sale in Lower Cook Inlet and to assist with planning and decision making. The EIS analyzes the impacts of activities typically associated with the development of oil and gas leases following a lease sale, including air and vessel traffic, seismic surveys (including the activities in the Proposed Action), and other activities associated with offshore drilling.

BOEM issued a Record of Decision in March 2017 to offer for lease 224 Outer Continental Shelf (OCS) blocks in Lower Cook Inlet with mitigation measures adopted to reduce potential impacts to beluga whales and their critical habitat and feeding areas; sea otters and their critical habitat; and the gillnet fishery.

Project Description: Cook Inlet Shallow Hazard Survey

HAK's G&G permit application is for a geohazard survey in the Cook Inlet from April 1 – October 31, 2020. The survey area will cover portions of 11 of 14 lease blocks (a total of approximately 88 square

miles) over 5 potential well locations that HAK may include in its future exploration plan submission. HAK proposes to survey the area with multibeam, magnetometer, sidescan sonar, and hi-res and low-res sparker arrays. The G&G activities are proposed to cover the off-lease portions and occur at the same time as the on-lease ancillary activities, from April 1 – Oct 31, 2020. The Proposed Action takes place entirely within the area offered for lease in Lease Sale 244.

Hilcorp proposes to survey the on and off-lease areas with a suite of geophysical tools composed of a multibeam echosounder, magnetometer, sidescan sonar, hi-res and low-res sparker arrays, and a sound velocity profiler. Hilcorp also proposes to collect water samples, seabed sediment samples, cores using a gravity/piston corer or grab sampler, and cone penetrometers. Hilcorp may use alternative coring methods (e.g., vibracore or rotary coring) depending on adequacy of initial results from the corer or grab sampler. HAK also proposes to collect water samples, seabed sediment samples, cores using a gravity/piston corer or grab sampler, cone penetrometers. They may use alternative coring methods (e.g., vibra core or rotary coring) depending on adequacy of initial results from the corer or grab sampler.

Review and Analysis

BOEM's Alaska Office of Environment has reviewed the LS244 EIS, HAK's G&G Permit 20-01 application, and its Notice to Conduct Ancillary Activities to determine whether the EIS is adequate to support BOEM's consideration of the Proposed Action, or whether BOEM must conduct additional NEPA analyses (e.g., a site-specific EA) prior to rendering its decision. This review addressed whether the LS244 EIS sufficiently covered the proposed action to such an extent that an EA is not necessary, per Department of the Interior regulations 43 CFR §§ 46.300(a)(2) and 46.120(c), the latter of which specifies:

> An existing environmental analysis prepared pursuant to NEPA and the Council on Environmental Quality regulations may be used in its entirety if the Responsible Official determines, with appropriate supporting documentation, that it adequately assesses the environmental effects of the proposed action and reasonable alternatives. The supporting record must include an evaluation of whether new circumstances, new information or changes in the action or its impacts not previously analyzed may result in significantly different environmental effects.

When BOEM produced the LS244 EIS it applied conservative analysis assumptions to ensure that its scope was broad enough to capture all activities reasonably foreseeable as a result of a Lease Sale. All of the activities described as part of HAK's Cook Inlet Shallow Hazard Survey, including the use of multibeam, magnetometer, sidescan sonar, and hi-res and low-res sparker arrays, water sample collection, seabed sediment sample collection, core collection using a gravity/piston corer or grab sampler, vibra core or rotary coring, and cone penetrometers measurements, and associated vessel noise and vessel traffic in Cook Inlet were all considered as part of the proposed Lease Sale. Other activities considered in the EIS, such as pile driving, drilling, the presence of structures, and air traffic are not relevant to the Proposed Action. There are no unique site-specific factors associated with the location of the proposed activities that require additional analysis of effects beyond those considered in the EIS and summarized below.

The subsections below address on a resource-specific basis the potential environmental effects associated with the Proposed Action and where those effects are considered in the LS244 EIS. See Section 4.2 *Impact-Producing Factors* of the LS 244 EIS for a general description of the types of impacts considered. For each individual resource see section citations below.

Air Quality. Vessel emissions for the activities described as part of the Proposed Action were analyzed in the LS244 EIS and determined to have negligible impacts to air quality. The Proposed Action would not result in additional emissions not already analyzed in the EIS (Section 4.3.1 *Air Quality*).

Water Quality. The LS244 EIS considered impacts to water quality from vessels and bottom disturbing activities associated with core sampling to be localized, short term, and thus minor. The activities described in the Proposed Action would result in no additional impacts to water quality not already analyzed in the EIS (Section 4.3.2 *Water Quality*).

Fish and Lower Trophic Organisms. The Proposed Action has the potential to impact fish and lower trophic organisms through vessel traffic/presence and from bottom disturbing activities, including cone penetrometers, (steel cones hydraulically pushed into the seabed) and core samples using a gravity/piston corer, vibra core, or rotary coring. The LS244 EIS analyzed impacts from vessel traffic and presence that would be greater than the one-two vessels described in the Proposed Action. The EIS also disclosed that "short term, minor adverse impacts" to the seafloor habitat would be expected from geotechnical surveys and notes "effects would be limited to relatively few individuals in the immediate vicinity" of the disturbance. The activities in the Proposed Action would not result in additional impacts to fish and lower trophic organisms not already analyzed in the LS244 EIS (Section 4.3.4 *Lower Trophic Level Organisms*).

Birds. The LS244 EIS analyzes the impacts of seismic survey vessels collecting data with "one or more towed streamers" and notes "surveys could occur anywhere within the proposed Lease Sale Area, with 24-hour operations that may continue for days, weeks, or months, depending on the size of the survey." Impacts from the use of several support vessels, e.g., for node placement/retrieval, as source vessels, and utility boats, were also included in the analyses. The impacts analysis concluded that these impacts to birds would be minor as they are temporary, localized, and short term. The use of one to two vessels for the placement and retrieval of the acoustic monitoring equipment associated with the Proposed Action does not entail any additional vessel traffic not already considered in the EIS (Section 4.3.8 *Birds*).

Marine Mammals. The LS244 EIS analyzes the impacts of vessel traffic to marine mammals at the same levels as noted above in "Birds." Impacts from vessel traffic would be minor as they are temporary, localized, and short term. The use of one or two vessels for the placement and retrieval of the acoustic monitoring equipment associated with the Proposed Action does not entail any additional impacts to marine mammals from vessel traffic not already considered in the EIS.

The LS244 EIS also analyzes the effects of noise associated with marine seismic surveys (i.e., 2D and 3D surveys that typically use airguns as the sound source), and the effects of geohazard and geotechnical surveys.

While BOEM's analyses found that survey noise could potentially affect all of the marine mammal species found in Cook Inlet, the most likely effect would be behavioral responses that are short-term and non-injurious. Overall, BOEM's analyses of noise associated with seismic surveys would range from negligible to minor. Furthermore, the mitigation measures included through the NEPA process as part of the approved Lease Sale (ramp-up procedures for seismic activities, Protected Species Observers aboard vessels, vessel speed limits, etc.) serve to minimize the impacts of survey noise and vessel traffic on all marine mammals, including whales, seals, dolphins/porpoise and sea otters.

The anticipated impacts to marine mammals from the use of one vessel to place and retrieve acoustic monitoring equipment and from noise associated with geohazard survey equipment, (which produces less noise than the 2D and 3D equipment referenced above) as described in the Proposed Action would be range from negligible to minor. HAK has a Letter of Authorization (LOA) from NMFS in place to cover its activities, which requires a finding of negligible impacts. Furthermore, the Proposed Action does not entail any additional vessel traffic nor introduce any anthropogenic noise levels/sources not already considered in the LS244 EIS (Section 4.3.6 *Marine Mammals*).

Subsistence Harvest Patterns. The LS244 EIS considered impacts of vessel presence/traffic and seafloor disturbance to subsistence activities. Impacts to subsistence harvest patterns from vessel traffic/physical presence associated with "routine operational activities" are expected to be short term and localized and therefore minor. Seafloor disturbing activities are not expected to affect subsistence resources, including salmon, or disrupt subsistence harvest patterns. Furthermore, the placement and retrieval of the acoustic monitoring equipment does not entail any additional vessel traffic not already considered in the EIS (Section 4.3.12 *Subsistence Harvest Patterns*).

BOEM also evaluated whether "new circumstances, new information or changes in the action or its impacts not previously analyzed may result in significantly different environmental effects" ((43 CFR § 46.120(c)) since BOEM issued its Record of Decision for Lease Sale 244 three years ago.

On January 28, 2020, the Alaska Fisheries Science Center (AFSC) released a report containing the biennial abundance estimate for the Cook Inlet beluga whale (AFSC, "Aerial Surveys, Distribution, Abundance, and Trend of Belugas—*Delphinapterus leucas*—in Cook Inlet, Alaska," June 2018). This report indicated there are fewer belugas in Cook Inlet than was previously thought. In a letter dated March 23, 2020, NMFS informed BOEM that after reviewing the new information concerning the Cook Inlet beluga whale's population estimate and trend, and the information relating to reports of 12 stranding events in the fall of 2019, they have concluded that BOEM does not need to reinitiate consultation. BOEM does not need to conduct additional NEPA analysis because the special status and limited numbers of belugas in Cook Inlet was already thoroughly considered in the EIS. The NEPA analysis relied heavily on NMFS expertise in reaching impact conclusions, and NMFS has determined that those conclusions are not significantly changed by the new information.

Otherwise, the circumstances surrounding HAK's proposed activities remain largely unchanged, and no new scientific studies, regulatory changes, or other information that would influence BOEM's analysis of impacts from the Lease Sale have become available. As detailed above, nothing in the Proposed Action represents a change or departure from those activities or impacts already considered in the LS244 EIS and associated consultations.

Determination

After reviewing HAK's proposed Cook Inlet Shallow Hazard Survey (Proposed Action) and the analysis provided in the LS244 EIS, BOEM has determined that:

- The activities described in the Proposed Action do not constitute a change from the activities and associated environmental impacts analyzed in the LS244 EIS;

- There are no significant new circumstances or information that would result in significantly different environmental effects from those considered in the LS244 EIS;
- The site of the activities does not present unique circumstances that require additional analysis beyond that addressed in the LS244 EIS; and thus
- Conducting additional NEPA analyses (e.g., a site-specific EA) is not necessary or warranted at this time before BOEM can proceed with a decision on the Proposed Action.