

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 18

[Docket No. FWS-R7-ES-2026-0694;
FXES111607MRG01-267-FF07CAMM00]

RIN 1018-BI93

Marine Mammals; Incidental Take of Polar Bears and Pacific Walruses in the Beaufort Sea and North Slope of Alaska

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (FWS), in response to a request under the Marine Mammal Protection Act (MMPA) of 1972 from the Alaska Oil and Gas Association (AOGA), finalize regulations facilitating the authorization of incidental, unintentional take of small numbers of polar bears (*Ursus maritimus*) and Pacific walruses (*Odobenus rosmarus divergens*) during year-round oil and gas industry activities in the Beaufort Sea (Alaska and the Outer Continental Shelf (OCS)) and adjacent northern coast of Alaska. Take may result from oil and gas exploration, development, production, and transportation activities occurring for a period of 5 years. Oil and gas industry operations include similar types of activities covered by the previous 5-year Beaufort Sea incidental take regulations effective from August 6, 2021, through August 5, 2026. We will issue letters of authorization, upon request, for specific activities in accordance with these regulations.

DATES: This rule is effective October 19, 2026 and remains effective through October 19, 2031.

ADDRESSES: *Document availability:* You may view this rule, the associated final environmental assessment (EA), and other supporting material at <https://www.regulations.gov> under Docket No. FWS-R7-ES-2026-0694, or these documents may be requested as described in the **FOR FURTHER INFORMATION CONTACT** section below.

FOR FURTHER INFORMATION CONTACT: Madonna Baucum, Chief of Regulations, U.S. Fish and Wildlife Service, by email at Info_Coll@fws.gov, or by telephone at (703) 468-8211. Individuals in the United States who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or TeleBraille) to access telecommunications relay services. Individuals outside the United States should use the relay services offered

within their country to make international calls to the point-of-contact in the United States.

SUPPLEMENTARY INFORMATION:

Immediate Promulgation

In accordance with the Administrative Procedure Act (APA; 5 U.S.C. 553(d)(3)), we find that we have good cause to make this rule effective less than 30 days after publication. Immediate promulgation of the rule will ensure that the requester will implement mitigation measures, monitoring, and reporting requirements that reduce potential impacts on polar bears (*Ursus maritimus*) and Pacific walruses (*Odobenus rosmarus divergens*), will allow the applicant to receive coverage under the MMPA (16 U.S.C. 1371(a)(5)(A)) for potential take of polar bears and Pacific walruses, increase our understanding of impacts that result from the requester's activities, and thus further our conservation objectives. Finally, this rule recognizes an exemption that is afforded the requester under the MMPA.

Executive Summary

In accordance with the MMPA and its implementing regulations, we, the U.S. Fish and Wildlife Service (hereafter "FWS" or we), finalize incidental take regulations (ITRs) that facilitate the authorization of the incidental, unintentional take of small numbers of polar bears and Pacific walruses during oil and gas exploration, development, production, and transportation activities in the Beaufort Sea (Alaska and the OCS) and adjacent northern coast of Alaska, not including lands within the Arctic National Wildlife Refuge (ANWR), for a 5-year period. Oil and gas activities include similar types of activities covered by the previous 5-year Beaufort Sea ITRs effective from August 5, 2021, through August 5, 2026 (86 FR 42982, August 5, 2021; revised 90 FR 27398, June 26, 2025).

This final rule is based on our findings that the total takings of polar bears and Pacific walruses during specified activities will impact small numbers of animals, will have a negligible impact on the species or stocks, and will not have an unmitigable adverse impact on the availability of these species or stocks for subsistence use by Alaska Natives. We base our findings on data from monitoring the encounters and interactions between these species and the oil and gas industry; research on these species; oil spill risk assessments; potential and documented effects on these species from similar activities; information regarding the natural history and

conservation status of polar bears and Pacific walruses; data reported from Alaska Native subsistence hunters; and predictive modeling. In conjunction with this rulemaking, the FWS has prepared an EA and associated FONSI.

These regulations include permissible methods of taking; mitigation measures to ensure that AOGA activities will have the least practicable adverse impact on these species or stocks, their habitat, and the availability of these species for subsistence uses; and requirements for monitoring and reporting.

Background

Section 101(a)(5)(A) of the MMPA gives the Secretary of the Interior (Secretary) the authority to allow the incidental, but not intentional, taking of small numbers of marine mammals, in response to requests by U.S. citizens (as defined in title 50 of the Code of Federal Regulations (CFR) in part 18 (at 50 CFR 18.27(c)) engaged in a specified activity, other than commercial fishing, within a specified geographic region. The Secretary has delegated authority for implementation of the MMPA to the FWS. According to the MMPA, the FWS shall allow this incidental taking for a period of up to 5 consecutive years if we find that the total of such taking:

- (1) Will affect only small numbers of individuals of the species or stock;
- (2) Will have no more than a negligible impact on the species or stock;
- (3) Will not have an unmitigable adverse impact on the availability of the species or stock for taking for subsistence use by Alaska Natives; and
- (4) We issue regulations that set forth:
 - (a) Permissible methods of taking,
 - (b) Means of effecting the least practicable adverse impact on the species or stock and its habitat and the availability of the species or stock for subsistence uses, and
 - (c) Requirements for monitoring and reporting of such taking.

If final regulations allowing such incidental take are issued, we may then subsequently issue letters of authorization (LOAs), upon request, to authorize incidental take during the specified activities.

The term "take" means to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal. Harassment for activities other than military readiness activities or scientific research conducted by or on behalf of the Federal Government means "any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild" (the MMPA defines this as "Level A harassment"),

or “(ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering” (the MMPA defines this as “Level B harassment”).

The terms “negligible impact” and “unmitigable adverse impact” are defined in 50 CFR 18.27 (*i.e.*, regulations governing small takes of marine mammals incidental to specified activities) as follows: “Negligible impact” is an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival. “Unmitigable adverse impact” means an impact resulting from the specified activity: (1) that is likely to reduce the availability of the species to a level insufficient for a harvest to meet subsistence needs by (i) causing the marine mammals to abandon or avoid hunting areas, (ii) directly displacing subsistence users, or (iii) placing physical barriers between the marine mammals and the subsistence hunters; and (2) that cannot be sufficiently mitigated by other measures to increase the availability of marine mammals to allow subsistence needs to be met.

The term “small numbers” is also defined in 50 CFR 18.27. However, we do not rely on that definition here as it conflates “small numbers” with “negligible impact.” We recognize “small numbers” and “negligible impact” as two separate and distinct requirements for promulgating ITRs under the MMPA (see *Ctr. for Biological Diversity v. Salazar*, 695 F.3d 893, 904 (9th Cir. 2012)). Instead, for our small numbers determination, we evaluate if the number of marine mammals estimated to be incidentally taken is small relative to the size of the species or stock.

The term “least practicable adverse impact” is not defined in the MMPA or its implementing regulations. In promulgating ITRs, we ensure the least practicable adverse impact by requiring mitigation measures that are effective in reducing the impact of specified activities, but not so restrictive as to make specified activities unduly burdensome or impossible to undertake and complete.

In this rule, the term “Industry” includes individuals, companies, and organizations involved in exploration, development, production, and transportation activities of the petroleum industry. Industry activities may result in the incidental taking of

Southern Beaufort Sea (SBS) polar bears and Pacific walruses (hereafter “walruses”). The MMPA does not require any party to obtain an incidental take authorization; however, any incidental taking that occurs without authorization is a violation of the MMPA. Since 1993, the oil and gas industry operating in the Beaufort Sea and the adjacent northern coast of Alaska has requested and we have issued ITRs for the incidental take of polar bears and walruses within a specified geographic region during specified activities. For a detailed history of our current and past Beaufort Sea ITRs, refer to the **Federal Register** at 90 FR 27398, June 26, 2025; 86 FR 42982, August 5, 2021; 81 FR 52276, August 5, 2016; 76 FR 47010, August 3, 2011; 71 FR 43926, August 2, 2006; and 68 FR 66744, November 28, 2003.

Summary of Request

On September 30, 2025, the FWS received a request from AOGA on behalf of its members and 8 Star Alaska, LLC to promulgate regulations for incidental take of small numbers of polar bears and walruses during oil and gas exploration, development, production, and transportation activities in the Beaufort Sea and adjacent northern coast of Alaska for a period of 5 years (2026–2031) (hereafter referred to as the “Request”). The FWS deemed AOGA’s Request as adequate and complete on January 12, 2026.

The AOGA requested regulations that will be applicable to the oil and gas exploration, development, production, and transportation activities of multiple companies specified in the Request. This includes AOGA member companies and 8 Star Alaska, LLC that have applied for these regulations. The companies represented in the Request (as modified via subsequent communication from AOGA concerning membership changes) include: Alyeska Pipeline Service Company; APA Corporation; BlueCrest Energy, Inc.; Chevron Corporation; ConocoPhillips Alaska, Inc. (CPAI); ExxonMobil Alaska Production, Inc. (ExxonMobil); Hex Operating, LLC; Glacier Oil and Gas Corporation (Glacier); Hilcorp Alaska, LLC and Hilcorp North Slope, LLC (Hilcorp); Marathon Petroleum Corporation; Petro Star, Inc.; Repsol; Santos; Shell Exploration and Production Company (Shell); and 8 Star Alaska, LLC (a non-member company).

The activities within the scope of the Request are consistent with the nature of oil and gas activities that have occurred on the Alaska North Slope for decades. Those activities have occurred in parallel with monitoring and

reporting that has provided a record of polar bear interactions in connection with such activities. To date, we have not made any determination of an effect on more than small numbers, a more than negligible impact, or an unmitigable adverse impact on the availability for taking for subsistence use by Alaska Natives for polar bears or Pacific walruses in the Alaska North Slope from oil and gas activities. AOGA has indicated that not all activities described in the Request will actually occur during the ITR period, noting the broad scope of activities in the Request was included to support a comprehensive analysis and account for variability.

Summary of Changes From the Proposed Regulations

In preparing the final rule for the incidental take of polar bears and walruses, we reviewed and considered comments and information from the public on our proposed ITR published in the **Federal Register** on March 9, 2026 (91 FR 11240). We also reviewed and considered comments and information from the public on our draft EA. Based on public comment on these and other issues in the proposed ITR and draft EA, the final rule reflects the following changes:

- The requester asked FWS to clarify the LOA process; specifically requesting FWS issue LOAs for activities within the scope and type of activities described in the Petition without detailed data requirements or new model runs. We have clarified the LOA process in the regulatory text at 50 CFR 18.123.

- The requester asked FWS to revisit our predictive estimates for vessel impacts, as they felt some routes were being double counted. Some routes were found to be counted in both the vessel analysis and the surface analysis. We have accordingly updated these estimates.

- The requester noted several small editorial errors. These errors did not substantially affect the content of the preamble. They have been corrected.

- The requester asked for several small points of clarification in the description of their specified activities. These included clarifying the following: helicopters will not knowingly hover over polar bear dens, ice roads may be used to access wells for plugging and abandonment, unmanned aerial vehicles (UAVs) may be used for environmental studies, geophones may not necessarily be placed in the ground, airborne gravity and airborne magnetic surveys may use rotary or fixed-wing aircraft, and aerial pipeline surveys may be

conducted with fixed-wing aircraft in addition to rotary aircraft. None of these impact any take estimates.

- The requester stated the mitigation measure requiring vessels to maintain the “maximum distance possible” from polar bears and walruses was too vague. In response, FWS has changed the language to “maximum distance practicable (805 m (0.5 mi) or greater).” This change does not affect any take estimates. FWS take estimates were calculated under the assumption that polar bears may be harassed within a 1.6 kilometer (km) (1 mile (mi)) impact area surrounding vessels.

- The requester stated skirting around facilities is not current practice, is not necessary, and is not operationally possible. We have removed discussion of this mitigation measure. This change does not affect any take estimates.

- The requester stated that conducting a required third aerial infrared (AIR) survey of polar bear included in the proposed ITR as an additional mitigation measure is not practicable due to logistical, human safety, and economic factors. As explained below, the FWS concluded that a third AIR survey is not practicable and has removed this additional mitigation measure.

- Commenters noted a discrepancy in the title of Subpart J which has been corrected.

- The requester and other commentors also noted the substantial differences between the historical data and the results from the predictive model and questioned whether the use of the model accurately estimates “take” of the species under the MMPA. We recognize the limitations of the predictive model and take estimates that significantly exceed historical data and AOGA take estimates. For that reason, the Service affirmatively considers other information and does not give its predictive models more weight than those other sources of information. FWS is clarifying that it considered all information before it, namely: monitoring encounters and interactions between the at-issue species and the oil and gas industry; research on these species; oil spill risk assessments; potential and documented effects on these species from similar activities; information regarding the natural history and conservation status of polar bears and Pacific walruses; and data reported from Alaska Native subsistence hunters; the FWS model; and AOGA’s take estimates. FWS considers all these inputs in line with Executive Order (E.O.) 14303, “Restoring Gold Standard Science.” We recognize that, if it considered the model absent

considering qualitative factors and AOGA’s take estimates, it would not be considering the “best available science.” In other words, considering all these inputs ensures the “best available scientific evidence” is used to support the determinations in this ITR.

We also present in the preamble of this final ITR revised estimates from the FWS predictive modeling efforts, specifically the estimates of impacts to denning bears. Through the process of further streamlining the code for the predictive denning model, we discovered two errors causing inaccurate model outputs. In the first error, dens that had zero cubs naturally (a roughly 7 percent chance in the model) but were simulated to receive lethal or level A harassment were being counted when we summarized the number of dens impacted in those categories. While the simulated den was impacted in terms of the sow, there could not be any harassment of cubs because they did not exist. In the second error, a line of code was identified that was causing an error in the counting of a single category of disturbance events.

The model relies on a simulation of polar bear dens across the landscape, followed by simulated exposure to project activities, and finally simulated disturbance (for some of the dens). We iterate this 10,000 times so that we can account for variation in different aspects of polar bear denning biology (*e.g.*, date of entry, birthdate, number of cubs, emergence date) as well as the random element of whether disturbance occurred based on empirical probabilities. We then calculate summary statistics for each kind of take, such as the probability of occurrence, mean, median, and upper and lower confidence intervals.

One line of code led to a single unaccounted category of dens. These dens were previously undisturbed in early and late denning but disturbed in the post-emergence period. That line of code has been fixed, the remaining code has been reviewed to ensure it does not have similar issues, and a series of auto-check functions have been written to ensure a similar issue doesn’t present during future code updates.

To describe the change plainly, instead of coding to “count all the dens specifically marked undisturbed” we changed the code to “count all dens except for those that were marked disturbed.” This change is necessary because the latter statement also selects those dens with a “missing” value where the former does not. Missing values in the code were present because the den was not labeled “disturbed” at the previous denning stages.

As a result of the code repairs, some FWS take estimates have changed. The estimated probability of lethal take has decreased slightly because we were using a den count to calculate the probability, and a small number of zero-cub dens were included in the calculation. Level A and Level B harassment estimates have increased as they now account for impacts to previously undisturbed dens that are simulated to exhibit a disturbance response in the post emergence period. The probabilities of such dens experiencing Level B (applicable to the sow) and Level A harassment (applicable to any cubs) is 28 percent and 72 percent respectively. This is a change from the faulty output, which did not count any take for these dens (*i.e.*, 0 percent take).

Description of the Regulations

These regulations facilitate the authorization of the incidental, unintentional take of small numbers of polar bears and walruses that may result from the specified activities. They do not authorize or “permit” the specified activities themselves. The regulations include:

- (1) Permissible methods of taking;
- (2) Measures designed to ensure the least practicable adverse impact on polar bears and walruses, their habitat, and on the availability of these species or stocks for subsistence uses; and
- (3) Requirements for monitoring and reporting.

Description of Letters of Authorization (LOAs)

An LOA is required to conduct activities pursuant to ITRs. Under these ITRs, eligible parties may request LOAs that would authorize incidental take of polar bears and walruses resulting from the specified activities described in these ITRs. Eligible parties are the member companies and 8 Star Alaska, LLC as specified in AOGA’s Request, and their corporate affiliates, respective contractors, subcontractors, partners, owners, co-lessees, designees, or successors-in-interest. Requests for LOAs must be consistent with the activity descriptions and mitigation and monitoring requirements of the ITRs and be received in writing at least 90 days before the activity is to begin. Requests must include (1) an operational plan for the activity, including the timing of work and the nature of work to be conducted; (2) an interaction plan for polar bears and walruses; (3) a site-specific marine mammal monitoring and mitigation plan that specifies the procedures to monitor and mitigate the effects of the

activities on polar bears and walrus; and (4) plans of cooperation (if required as described in Mitigation Measures, below). Once this information has been received, we will evaluate whether the level of activity identified in the LOA request exceeds that analyzed by us in considering the findings made for the total taking allowable under these ITRs. If the level of activity exceeds that analyzed, the FWS may request additional information. For more information on requesting and receiving an LOA, refer to 50 CFR 18.27(f).

Description of Specified Geographic Region and Specified Activities

The specified geographic region covered by the requested ITRs (Beaufort Sea ITR region, see figure 1, below)

encompasses all Beaufort Sea waters (including State waters and OCS waters as defined by the Bureau of Ocean Energy Management) east of a north-south line extending from Point Barrow (latitude 71.39139° N, longitude 156.475° W; Board on Geographic Names (BGN) 1944) to the Canadian border, except for marine waters located within the ANWR. The offshore boundary extends 80.5 km (50 mi) offshore. The onshore boundary includes land on the North Slope of Alaska from Point Barrow to the western boundary of ANWR. The onshore boundary is 40 km (25 mi) inland. No lands or waters within the exterior boundaries of ANWR are included in the Beaufort Sea ITR region. The

geographical extent of the proposed Beaufort Sea ITR region (approximately 7.9 million hectares (ha) (approximately 19.8 million acres (ac))) is the same region covered in previous regulations set forth in the final rule that published at 86 FR 42982, August 5, 2021 and revised at 90 FR 27398, June 26, 2025. The specified geographic region includes but is not limited to the following oil and gas development areas on the North Slope of Alaska: Nikaitchuq, Oooguruk, Badami, Northstar, Endicott (Duck Island), Liberty, Milne Point, Point Thomson, Prudhoe Bay, Pikka, Quokka, Southern Miluveach, Kuparuk River, Greater Mooses Tooth, Colville River, Horseshoe, and Bear Tooth.

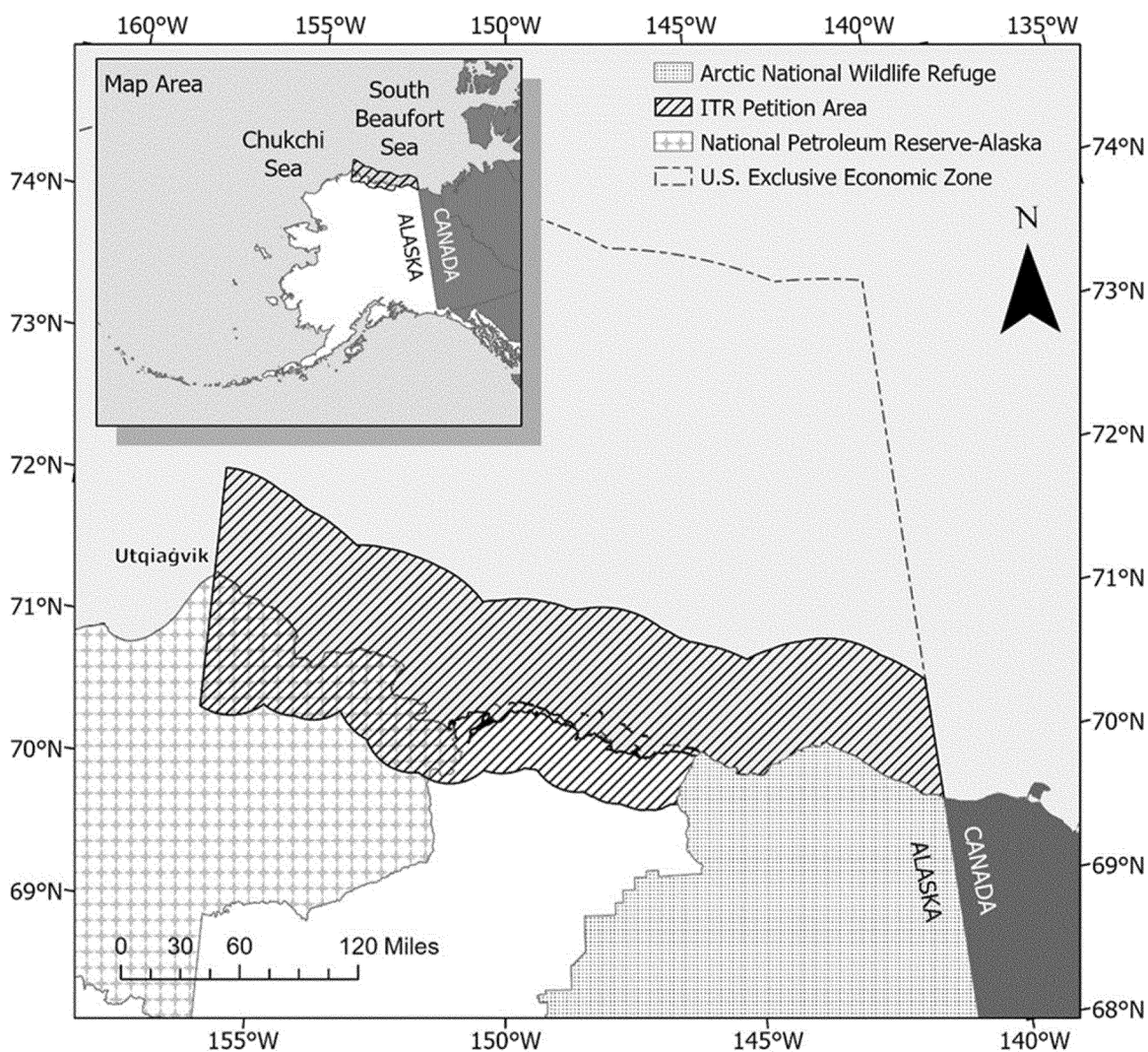


Figure 1—Specific geographic region of the requested incidental take regulations.

The specified activities include oil and gas exploration, development,

production, and transportation activities within the specified geographic region.

This section summarizes the type and scale of Industry activities anticipated to

occur in the Beaufort Sea ITR region from 2026 to 2031. Year-round onshore and offshore Industry activities are anticipated. During the 5-year ITR period, Industry activities are expected to be generally similar in type, timing, and effect to activities evaluated under the prior ITRs. Additional information is available in the Request at <https://www.regulations.gov> in Docket No. FWS-R7-ES-2026-0694.

Transportation and Staging

Transportation activities will include aircraft operations; vehicle and equipment operations on gravel roads, gravel pads, ice roads, and ice pads; vehicle operations on tundra; and vessel transit and barging operations.

Aircraft operations will consist of personnel and cargo transport flights to support operations, aerial pipeline inspections, and environmental monitoring surveys. Personnel and cargo flights will be conducted routinely throughout the Beaufort Sea ITR region to support operations, and the frequency of these flights may vary depending on the location and type of operation. Fixed-wing aircraft will generally be used to transport personnel and cargo across development areas. Helicopters will be used to transport personnel and cargo to coastal or offshore facilities and to access remote areas. Flight altitude for personnel and cargo transport flights will generally be above 305 meters (m) (1,000 feet (ft)) above ground level unless inclement weather requires a lower flight altitude for personnel safety. Aerial pipeline inspections will be conducted frequently year-round using helicopters, UAVs, or fixed-wing aircraft. Environmental monitoring surveys will be conducted using helicopters, UAVs, or fixed-wing aircraft depending on the type of survey and the frequency of these environmental monitoring surveys will vary across location and time of year during the ITR period.

Vehicle and equipment operations will occur on the existing gravel road system and gravel pads within the ITR region to support operations. Expansion of existing gravel roads and gravel pads as well as construction of new gravel roads and gravel pads will be conducted to support operations as needed throughout the ITR period. Gravel roads and pads typically will be constructed or expanded during the winter, although new gravel placement on the tundra may occur during any season. Equipment that will be used to construct or expand gravel roads and pads includes all-terrain vehicles (ATVs), graders, loaders, excavators, rollers, dump trucks, tractors,

bulldozers, vehicles, and other heavy equipment. Gravel road and pad maintenance will occur as needed to support transportation and operations throughout the ITR period. Gravel will be obtained from existing gravel mine sites and new gravel mine sites that may be developed within the ITR region.

During the winter, ice roads and ice pads will be constructed both onshore and offshore to support vehicle and equipment transportation and operations. The number, size, and personnel occupancy of ice roads and pads will vary each winter depending on the operations. Some ice roads will be constructed annually in the same location and other ice roads will be constructed in different locations based on operation requirements that vary during the ITR period. Offshore ice roads, trails, and pads will be constructed on floating sea ice or grounded ice in shallow water (less than 2 m (7 ft)). Offshore ice roads, trails, and pads may be constructed as early as December and be used until May during each winter. Equipment that will be used to construct ice roads, trails, and pads includes tracked vehicles, tractors, snowplows, pump trucks, ATVs, graders, and loaders.

Vehicle operations will occur on the tundra to support surveys, scout transportation routes, conduct environmental monitoring studies, and support infrastructure inspections and maintenance activities. Tundra travel will occur year-round throughout the ITR period. Equipment that will be used for tundra travel includes tracked vehicles, ATVs, snowmachines, Tucker Sno-Cat vehicles, and Rolligons.

Vessel transit and barging operations will support transportation of personnel, equipment, and supplies for operations. There are several marine dock facilities that will be used to support vessel transit and barging operations in the ITR region including West Dock, Oliktok Dock, and other private dock facilities in development areas. West Dock is located on the northwestern shore of Prudhoe Bay east of Point McIntyre. Oliktok Dock is located on the eastern side of West Harrison Bay at Oliktok Point. Maintenance dredging or screeding will be conducted as needed at the marine dock facilities. The majority of the vessel transit and barging operations will occur during the open-water season (July through October). Vessels of various sizes will be used to support transportation activities and may include crew boats, hovercrafts, zodiac vessels, and catamarans. Hovercrafts will also be used to transport personnel and cargo during both the ice-covered

season and open-water season. Barges, sealifts, and tugboats will be used to transport facility modules, construction materials, cargo, fuel, and other heavy equipment during the open-water season. Sealifts are anticipated to occur over multiple years of the ITR period to transport facility modules to Oliktok Dock or West Dock, and offloading of sealifts may occur in and around offshore, subtidal, or intertidal areas of the Beaufort Sea. Barge lightering may be used to transfer cargo between vessels to allow vessels to enter shallow water. Barges may be transferred to shallow draft tugs for nearshore transportation. During offloading, barges may be staged offshore if dock space is limited.

Surveys and Studies

A variety of surveys and studies will be conducted such as geophysical surveys, airborne gravity/magnetic surveys, geotechnical surveys, seismic exploration surveys, vibroseis seismic surveys, vertical seismic profiles (VSPs), seafloor imaging, offshore bathymetry surveys, shallow hazard surveys, open-water marine vibroseis surveys, environmental monitoring studies, and AIR surveys to detect polar bear dens. These surveys and studies may occur with routine frequency or be conducted as needed for specific projects. The specific locations and numbers of surveys and studies will vary depending on location-specific and operation-specific needs throughout the ITR period.

Geophysical surveys will be conducted to collect information about subsurface geology. Geophysical survey personnel will survey the surface of the land or seafloor to collect information on near-surface hazards that can be avoided during drilling operations or map deep strata beneath the surface of the ground to search for gas and oil-bearing rock formations. Geophysical surveys will occur routinely at existing development areas.

Airborne gravity and airborne magnetic surveys will record passive measurements of the Earth's gravitational and magnetic fields to collect information on potential geologic structures that may contain oil and gas. Surveys will use rotary-wing or fixed-wing aircraft. Survey flight altitudes for rotary-wing aircraft will range from 91.5 m (300 ft) to 152.4 m (500 ft) above ground level. Survey flight altitude for fixed-wing aircraft will be a minimum of 152.4 m (500 ft) above sea level.

Geotechnical surveys will consist of collecting shallow core samples to provide information about soil conditions where onshore and offshore

roads, pipelines, structures, or other facilities are planned to be constructed or to locate gravel sources. Geotechnical surveys will often occur simultaneously with other operations such as ice or gravel road construction or seismic exploration surveys. Geotechnical survey personnel will generally use winter tundra travel routes to access their survey areas and use a geotechnical drill unit to collect the core samples. A small mobile camp to support the survey personnel and other machinery will often be used during these geotechnical surveys.

Geotechnical surveys will occur routinely at existing development areas.

Seismic exploration surveys will collect information on the subsurface structure of rock formations. Sound energy waves will be sent into the ground using an energy source such as an airgun or vibroseis, where different layers within the Earth's crust reflect this energy. These reflected energy waves will be recorded by geophones to identify hydrocarbon-containing structures. Vibroseis seismic operations will use truck-mounted vibrators that emit frequency energy into the ground, and these operations may occur both onshore and on sea ice. Vibroseis seismic operations may consist of 40 to 200 personnel, small and heavy equipment, and a mobile sled-mounted camp to support personnel. Vibroseis seismic operations may occur during the winter from January through May.

The VSP surveys will consist of lowering geophones into a well bore on land and repeatedly activating the energy source to gather seismic data from the well. These surveys will be conducted both on and off a drill pad, extending up to 5 km (3 mi) from the drilling rig, and up to eight personnel will conduct these surveys.

Seafloor imagery surveys will collect information about the seafloor by emitting sound energy towards the seafloor and interpreting the reflected sound energy to create a two-dimensional image of the seafloor and any features or objects on it. Equipment that will be used during these seafloor imagery surveys includes side-scan sonar that is towed behind a vessel. Side-scan sonar will generally emit high-frequency sound greater than 200 kilohertz (kHz).

Offshore bathymetry studies will collect information about the water depth, seafloor contours, hazards, and other environmental conditions. Equipment that will be used during these bathymetry surveys includes echosounders, such as a single-beam or multi-beam sonar device, that is mounted on the vessel's hull or on a

side-mounted pole. Single-beam sonar devices emit a high-frequency single pulse of sound to record water depth, and these devices may operate at a frequency of either 100 kHz or 200 kHz. Multi-beam sonar devices will be composed of a transducer array that emits a swath of sound, motion sensor on the vessel, gyrocompass on the vessel, and a sound velocity probe in order to create a three-dimensional view of the seafloor. Multi-beam sonar devices may generally operate at a frequency of 240 kHz.

Shallow hazard surveys will collect information about the seafloor and immediate subsurface. Equipment that will be used during these shallow hazard surveys includes a high-frequency sub-bottom profiler, intermediate-frequency profiler, and a multi-channel system, which is an array of hydrophones towed by a vessel to receive reflected sound energy emitted by the sparker. Different types of sub-bottom profilers may be used depending on the type of seafloor imagery required for the shallow hazard surveys and the general frequency of this equipment may range from 0.3 to 20 kHz.

Open-water marine vibroseis may be conducted as a potential alternative to using traditional airguns for offshore oil and gas surveys. Equipment that will be used during these marine vibroseis surveys includes a vibrating plate or shell to displace water to produce acoustic signals.

Environmental monitoring studies to support oil and gas activities will include but are not limited to those that examine geomorphology (soils, ice content, permafrost); archaeology and cultural resources; vegetation mapping; analysis of fish, bird, and mammal species and their habitat; acoustic monitoring; hydrology; and other freshwater, marine, and terrestrial studies of the Arctic coastal and offshore regions. Environmental monitoring studies may be conducted by individual operators or in cooperation with other entities such as government agencies, academic institutions, or local communities. These environmental monitoring studies will often be conducted in response to regulatory requirements and may occur across multiple years. Equipment that will be used during environmental monitoring studies may include vehicles, vessels, snow machines or tuckers, helicopters, UAVs, or fixed-wing aircraft depending on the type of study. Flight altitudes for fixed-wing aircraft may range from 30 m (98 ft) to 450 m (1,476 ft) depending on the type of study. Environmental monitoring surveys will be conducted to fulfill

regulatory and permit requirements and support natural resource exploration and development in the ITR region throughout the ITR period.

AIR surveys will be conducted to detect maternal polar bear dens near Industry each winter. Infrared cameras mounted on a fixed-wing aircraft will be used to detect body heat from denning female polar bears that permeates through the snow.

Well Drilling and Production

Drilling, production, and maintenance of operating wells for oil and gas exploration, development, and production at existing facilities will occur throughout the ITR period. Industry also plans to drill new exploration, appraisal, and production wells within the ITR region depending on resources and other factors. The number and location of these well drilling and maintenance activities will vary throughout the ITR period, but the level of these activities is anticipated to be similar to previous years. New wells may require construction of new gravel pads or new gravel roads or ice roads to access well locations. New wells may also require installation of stream crossings, vertical support members (VSMs), pipelines, power cables, and fiber optic cables to support well drilling and production activities. Temporary camps may be established to accommodate personnel during well drilling and production activities as needed. Equipment that will be used to support well drilling, production, and maintenance activities includes drill rigs, pumps, processing facilities, and support infrastructure. Industry plans to conduct plugging and abandonment of wells that are currently suspended or will be suspended during the ITR period. The number of wells that may be plugged and abandoned will vary each year throughout the ITR period, but the level of these activities is anticipated to be similar to previous years. These activities may be supported by aircraft or vehicles using ice roads or the existing road network depending on the location of the well that will be plugged and abandoned.

Artificial and natural islands along the Beaufort Sea coastline may serve as well drilling platforms for offshore production. Artificial islands may be constructed at various times of the year using a combination of gravel, boulders, artificial structures, or ice. Vibratory and impact pile driving will be conducted to install conductor pipes, foundation pipes, and sheet piles to support development of the islands for production. Monitoring and maintenance of the islands used for

production will be conducted as needed throughout the ITR period. Monitoring inspections may use sonar and divers, and these inspections may occur multiple times throughout each year of the ITR period depending on weather and wave conditions.

Pipelines

Maintenance of existing terrestrial pipelines (buried and above ground) and subsea pipelines to transport oil and gas products will occur throughout the ITR period. Pipeline inspections and maintenance activities will be conducted by tundra travel vehicles throughout the year. Industry will replace and extend existing pipelines and associated infrastructure as needed to maintain the integrity of the pipeline system throughout the ITR region. New pipelines may be installed within the ITR region to transport oil and gas products from existing wells or new wells. Pipeline installation will generally occur during winter and ice roads will be constructed to support pipeline installation. VSMs will be installed using vibratory and impact pile driving or drilling to support pipelines above ground.

Support Facilities, Infrastructure and Functions

Support facilities and infrastructure include the Deadhorse Airport, Dalton Highway, and Spine Road to transport personnel, equipment, and supplies across the North Slope of Alaska. Permanent camps will be used to house personnel at operation centers, processing facilities, drill sites, and other similar facilities. Temporary camps may be installed for specific projects or travel with personnel to complete projects as needed. Other support functions will include waste management, emergency response training for personnel, in-water dredging and screeding to remove or deposit sediment materials and smooth the seafloor for in-water operations, and pile driving to construct docks and land structures.

Waste management protocols will be implemented in an effort to minimize interactions with wildlife. Solid waste from camps will be disposed of at the Oxbow Landfill in the Prudhoe Bay Development or other permitted facilities. Food and burnable waste will be incinerated when feasible. Food waste will be carefully managed to avoid attracting wildlife such as placing food waste in wildlife-proof receptacles. Drilling and production waste will be injected into underground injection control disposal wells where it will be inaccessible to wildlife and will not

have the potential to contact any sources of groundwater or surface soils. Hazardous waste will be kept inside closed containers and disposed of in accordance with applicable regulations.

Emergency and oil spill response training activities for personnel will occur at various times throughout the year during the ITR period. Oil spill equipment deployment exercises conducted during the ice-covered period will use snowmachines, ATVs, portable generators, skid steer loaders, snow blowers, and various types of equipment to cut ice slots or drill holes through floating sea ice. Other equipment and supplies that will be used during emergency response training activities include vessels, trucks, booms, and sorbents. The location and frequency of emergency and oil spill response training activities will vary depending on the sea ice or winter tundra conditions and training requirements.

In-water dredging and screeding will be conducted to remove and deposit seafloor sediment and smooth the seafloor to support in-water operations. These activities will be conducted during the open-water season of each year at various dock locations including but not limited to Oliktok Dock and West Dock. Dredging may also be conducted during the winter depending on conditions. Equipment that will be used for dredging includes a barge-mounted suction dredge, excavator, or a crane with a dredging bucket on a barge platform. Equipment that will be used for screeding includes a device such as a plow or rake-like structure that is attached to a barge or backhoe.

Pile driving or drilling activities will be conducted to support construction or repair of docks, bridges, and offshore or riverine structures as needed throughout the ITR period. Pile driving activities may include vibratory pile driving, impact pile driving, drilling, and down-the-hole drilling, and the pile driving methods, depending on the project requirements.

Anticipated Future Projects

Industry anticipates that the oil and gas exploration and development activities described above will continue at levels similar to previous years during the ITR period throughout the ITR region. There are also several new projects anticipated for the ITR period in addition to the routine oil and gas operations described above. Those projects are described in AOGA's Request and are not a comprehensive or exhaustive list of future projects that will occur during the ITR period. The scope of future projects and their

associated schedules may change, and some listed projects may not occur at all. All projects that do occur, and for which LOAs are requested under these ITRs, will fall within the class of oil and gas exploration, production, development, and transportation activities described in AOGA's Request (and appendices) and summarized above.

Mitigation Measures

The applicant has proposed a decision framework and a number of mitigation measures in section 9 of their Request to minimize the potential effects of proposed activities on polar bears and walrus and effect the least practicable adverse impacts on those stocks. AOGA's proposed measures include mitigation for general avoidance and minimization that apply to a variety of their planned activities as well as measures specific to aircraft and vessels; they have also included in their Request plans for conducting maternal polar bear den surveys and methods for minimizing the impacts of their activities on the subsistence harvest of polar bears and walrus.

The general avoidance and minimization measures proposed in AOGA's Request include maintaining a current polar bear and walrus interaction plan in coordination with the FWS that details their protocols for food and waste management, training, snow removal, polar bear and walrus avoidance and encounters, and polar bear and walrus reporting procedures. The applicant also intends to continue to design facilities and plan projects in such a way that polar bears' access to attractants is reduced. Further, they will maintain designated personnel for specific activities to observe and record observations of polar bears and walrus. Finally, they highlight how they will continue to avoid operating equipment in potential den locations.

Proposed mitigation measures for aircraft use include not flying below an altitude of 457 m (1,500 ft) or within 805 m (0.5 mi) of polar bears or walrus observed on ice or land except in emergency situations. Helicopters will not be allowed to hover or circle over polar bears, known polar bear dens, or walrus. Additionally, the applicant has proposed that if weather conditions prevent flying at an altitude of 457 m (1,500 ft) or higher, that the pilot will avoid areas of known polar bear and walrus concentration.

The proposed measures for vessel use include having observers to monitor for polar bears and walrus during marine operations and maintaining the maximum distance practicable (805 m

(0.5 mi) or greater) from concentrations of polar bears or walruses. Polar bears or walruses observed on land or sea will not be approached within an 805-m (0.5-mi) radius except in the case of an emergency. Furthermore, vessels will not separate groups of two or more walruses and will reduce speed and maintain a minimum 805-m (0.5-mi) exclusion zone around groups of 12 or more walruses in the water or polar bears on ice. Vessels that are over 15 m (50 ft) long will maintain a distance of 805 m (0.5 mi) from any walrus haulout. When visibility is reduced, vessels will adjust speed accordingly to decrease the likelihood of injury to walruses.

LOA holders will survey for maternal polar bear dens via AIR during the early polar bear denning season, in November through January. LOA holders will conduct one AIR survey of all denning habitat within 1.6 km (1 mi) of winter activity. This survey would occur in November or December. LOA holders will also conduct a second survey of denning habitat within 1.6 km (1 mi) of winter activities in the high and moderate denning density zones established by FWS (for more information about the creation of denning density zones and a map, a summary of this information is available in supplemental information on <https://www.regulations.gov> in Docket No. FWS-R7-ES-2026-0694). The second survey would occur in December or January. Additionally, surveyed locations that yield heat signatures indicating the possible presence of a maternal polar bear den will be re-surveyed. Protocols for conducting the maternal polar bear den surveys are documented in section 9.2 of the Request. If AIR surveys yield any putative polar bear dens within 1.6 km (1 mi) of planned activities, AOGA will consult with the FWS to create a mitigation zone around the suspected den site such that it will not be disturbed by any project activities for the remainder of the denning season (November to April). The applicant has also proposed follow-up surveys via AIR, handheld or vehicle-mounted infrared cameras or binoculars, or the use of unmanned aerial systems (UAS) to confirm den presence or identify when the den is no longer in use. Known active den sites will be monitored by personnel in trucks or off-road vehicles, or by remote cameras that can record or stream data. This monitoring of polar bears' activity can assist with avoiding disturbance, especially during the den emergence period when polar bear sows and cubs make repeated short trips outside before

returning to the den. Monitoring will be conducted from an appropriate distance established in consultation with the FWS to avoid disturbance from the monitoring activities. Finally, personnel working during the den emergence period will be trained to look for signs of polar bear dens in their work areas and dedicated personnel may be assigned to monitor work areas for polar bears to protect workers and allow polar bears to pass through undisturbed.

Trained and qualified personnel will continue to monitor for, record, and report polar bear and walrus observations, and initiate mitigation measures (Request, sections 9 and 10). LOA holders will report the efficacy of mitigation measures and any observed effects of Industry activities on these species. Monitoring personnel will complete a training program approved by FWS. Details of the monitoring procedures will be provided in an FWS-approved, site- and project-specific marine mammal monitoring and mitigation plan.

To help ensure that incidental taking of polar bears and walruses does not have an unmitigable adverse impact on the availability of the species for Alaska Native subsistence hunting opportunities, the Request states all LOA applicants will provide the FWS documentation of communication and coordination with Alaska Native communities potentially affected by the specified activity and, as appropriate, with representative subsistence hunting and co-management organizations. If Alaska Native communities or representative subsistence hunting organizations express concerns about the potential impacts of specified activities on subsistence activities, and such concerns are not resolved during this initial communication and coordination process, then a plan of cooperation (POC) must be developed and submitted with the applicant's request for an LOA. In developing the POC, the LOA applicant will further engage with Alaska Native communities and/or representative subsistence hunting organizations to provide information and respond to questions and concerns. The POC must provide adequate measures to ensure that specified activities will not have an unmitigable adverse impact on the availability of polar bears and walruses for Alaska Native subsistence uses.

Should community outreach result in concerns about adverse impacts to subsistence harvest from the planned activities, the Request states that LOA holders will develop a POC to address those concerns and prevent interference with the subsistence harvest. Regardless

of the need for a POC, the applicant will limit the timing of activities (including aircraft- and vessel-based activities) and avoid known locations of importance for the subsistence harvest of polar bears and walruses.

Description of Marine Mammals in the Specified Geographic Region

Polar bears and walruses are the marine mammal species managed by the FWS likely found within the specified geographic region. Information on the range, stocks, biology, and other impacts on polar bears and walruses was considered in the development of these ITRs. A summary of this information is available in supplemental information on <https://www.regulations.gov> in Docket No. FWS-R7-ES-2026-0694.

Potential Impacts of the Specified Activities on Marine Mammals

Impacts of Surface Activities on Polar Bears

Disturbance impacts on polar bears will be influenced by the type, duration, intensity, timing, and location of the source of disturbance. The noises, sights, and smells produced by these activities could elicit variable responses from polar bears, ranging from avoidance to attraction. When disturbed by noise, animals may respond behaviorally by walking, running, or swimming away from a noise source, or physiologically via increased heart rates or hormonal stress responses (Harms et al. 1997; Tempel and Gutierrez 2003). However, individual response to noise disturbance can be based on previous interactions, sex, age, and maternal status (Anderson and Aars 2008; Dyck and Baydack 2004). Noise and odors could also potentially attract polar bears to work areas. Attracting polar bears to these locations could result in human-polar bear interactions, incidental harassment, and/or intentional take (which is not authorized via ITRs) by hazing or defense of human life. The Request includes mitigation measures to manage attractants in work areas and reduce the risk of human-polar bear interactions.

Human-Polar Bear Interactions

From mid-July to mid-November, SBS polar bears can be found in large numbers and high densities on barrier islands, along the coastline, and in the nearshore waters of the Beaufort Sea, particularly on and around Barter and Cross Islands (Wilson et al. 2017). This distribution leads to a significantly higher number of human-polar bear interactions on land and at offshore structures during the open-water season

than other times of the year. Polar bears that remain on the multi-year pack ice are not typically present in the ice-free areas where vessel traffic occurs, as barges and vessels associated with Industry activities travel in open water and avoid large ice floes.

On land, most polar bear observations occur within 2 km (1.2 mi) of the coastline based on polar bear monitoring reports. Facilities within the offshore and coastal areas are more likely to be approached by polar bears, and they may act as physical barriers to polar bear movements. As polar bears encounter these facilities, the chances for human-polar bear interactions increase. However, polar bears have frequently been observed crossing existing roads and causeways, and they appear to traverse the human-developed areas as easily as the undeveloped areas based on monitoring reports.

A larger percentage of SBS polar bears are spending more time on land during the open-water season, which may increase the risk for human-polar bear interactions (Atwood et al. 2016; Kelner et al. 2022; Rode et al. 2022). It is likely that human-polar bear interactions will occur at some point during the specified activities. Per the Request, operators would maintain human—polar bear interaction plans and attractant management plans, design facilities and plan projects to reduce the possibility of polar bears reaching attractants and humans, and monitor for polar bears. These plans and requirements are designed to reduce human-polar bear interactions and minimize the risks to polar bears and humans when interactions occur. Interaction plans detail how to respond to the presence of polar bears, the chain of command and communication, and required training for personnel. Attractant (e.g., human food, garbage) management plans can prevent polar bears from associating humans with food, which mitigates the risk of human-polar bear interactions (Atwood and Wilder 2021). Information gained from monitoring polar bears near industrial infrastructure can be useful for better understanding polar bear distribution, behavior, and interactions with humans. Tools that may be used to facilitate detection and monitoring of polar bears include bear monitors, thermal cameras, and remotely operated cameras.

Effects of Aircraft Activities on Polar Bears

The Federal Aviation Administration tests aircraft-produced sound at all measured frequencies (50 hertz (Hz) to 10 kHz) (Healy 1974). At frequencies centered at 5 kHz, jets flying at 300 m

(984 ft) produced $\frac{1}{3}$ octave band noise levels of 84 to 124 decibels (dB), propeller-driven aircraft produced 75 to 90 dB, and helicopters produced 60 to 70 dB (Richardson et al. 1995). Thus, the frequency and level of airborne sounds typically produced by aircraft are unlikely to cause either temporary or permanent impairment to polar bear hearing unless polar bears are very close to the sound source (Southall et al. 2019).

Although neither temporary nor permanent hearing impairment is anticipated during the specified activities, aircraft overflights have the potential to elicit behavioral responses from polar bears. Exposure to aircraft overflights is expected to result in short-term behavior changes, such as walking, running, or ceasing to rest and, therefore, has the potential to increase energetic costs. Quigley et al. (2022 and 2024) conducted intentional aircraft overflights above polar bears to determine their responses to overflights. Researchers approached polar bears repeatedly at decreasing altitudes with an average flight altitude of 143 m (469 ft). Polar bears exhibited biologically meaningful behavioral responses during 66.6 percent of experimental overflights. These behavioral responses were significantly correlated with the aircraft's altitude, the polar bear's location (e.g., coastline, barrier island), and the polar bear's activity at the time of the encounter. In a separate study, polar bears associated with dens were exposed to aircraft flying at altitudes of 150 m (492 ft) or less and exhibited various responses that ranged from increased head movement and observation of the disturbance to the initiation of rapid movement and/or den abandonment (Larson et al. 2020). Aircraft activities can impact polar bears across all seasons; however, aircraft have a greater potential to disturb both individuals and groups of polar bears on land during the summer and fall. These onshore polar bears are primarily fasting or seeking alternative terrestrial foods (Cherry et al. 2009; Griffen et al. 2022), and polar bear responses to aircraft overflights may result in metabolic costs to limited energy reserves. To reduce potential disturbance of polar bears during aircraft activities, the Request incorporates mitigation measures, such as minimum flight altitudes (457 m/1,500 ft) over polar bears and their frequently used areas and flight restrictions around known polar bear aggregations, to be conducted when safe to perform these operations during aircraft activities.

Effects of In-Water Activities on Polar Bears

While polar bears swim in and hunt from open water, they spend less time in the water than most marine mammals. Stirling (1974) reported that polar bears observed near Devon Island during late July and early August spent 4.1 percent of their time swimming and an additional 0.7 percent engaged in aquatic stalking of prey. More recently, Lone et al. (2018) found 75 percent of polar bears swam daily during open-water months, with animals spending 9.4 percent of their time in July in the water. While polar bears typically swim with their ears above water, there are occasions when a polar bear may dive and therefore have its ears below the surface.

Polar bear behavior is expected to be impacted by the presence of humans and equipment in the water. In 2012, during the open-water season, Shell USA, Inc (Shell) vessels encountered a few polar bears swimming in ice-free water more than 112.6 km (70 mi) offshore in the Chukchi Sea. In those instances, the polar bears were observed to either swim away from or approach the Shell vessels, sometimes swimming around a stationary vessel before leaving. In at least one encounter, a polar bear approached, touched, and investigated a stationary vessel from the water before swimming away. We anticipate that polar bears that encounter vessels during the specified activities may have an evasive or curious response, similar to these reports.

Some of the specified activities may introduce noise into the marine environment at sound levels capable of causing a behavioral change or temporary or permanent damage to polar bear hearing. However, the majority of the sound-producing instruments that will be used do not produce in-water sound above the threshold designated for Level B harassment or they do not produce sound within the hearing range of polar bears (for a discussion of this threshold and polar bear hearing see supplemental information on <https://www.regulations.gov> in Docket No. FWS-R7-ES-2026-0694). Echosounders and side-scan sonar are typically operated at a frequency at or above 200 kHz, which is outside the hearing range for polar bears (Southall et al. 2019). Other equipment types, such as sub-bottom profilers and sparkers may produce sounds within the hearing range of polar bears (2 kHz to 16 kHz and 300 Hz to 1.5 kHz, respectively), and at an estimated sound source level

above the Level B harassment threshold (202 decibels referenced to a pressure of 1 microPascal (dB re 1μPa)); however, their sound production is typically highly directional and focused within a narrow beam. While exposure to other underwater sounds such as those created by screeding, dredging, pile driving, or anchor handling and thrusting may cause changes in behavior, temporary or permanent changes in hearing sensitivity, or discomfort, polar bears are not expected to be frequently exposed because they do not typically swim with their heads under water unless diving (Lone et al. 2018).

Effects to Denning Polar Bears

Known or suspected polar bear dens around the oilfield, discovered opportunistically and/or during planned surveys for tracking marked polar bears and detecting polar bear dens, are monitored by the FWS. However, these sites are only a small percentage of the total active polar bear dens for the SBS stock in any given year. Each year LOA and incidental harassment authorization (IHA) holders coordinate with the FWS to conduct surveys to attempt to determine the location of known or suspected polar bear dens and denning habitat within 1.6 km (1 mi) of human activity. Per typical LOA requirements, if a known or suspected den site is located, LOA holders immediately consult with the FWS to determine if additional surveys or mitigation measures are required. The exact prescription of mitigation measures may vary based on the specifics of an individual den site but in the past, after locating a known or suspected den site, FWS has worked with operators to implement various mitigation measures such as activity exclusion zones and 24-hour monitoring of the den site. In their Request, AOGA has committed to “maintain a minimum avoidance distance of 805 m from all polar bears at a den site when operating vehicles, vessels, and aircraft, except in the event of an emergency or a den-specific plan when safe and practicable to do so.” The responses of denning polar bears to disturbance and the consequences of these responses can vary throughout the denning process, which entails four stages: den establishment, early denning, late denning, and post-emergence; definitions and descriptions are provided by Woodruff et al. (2022a) and are also located in the 2021–2026 Beaufort Sea ITRs (86 FR 42982, August 5, 2021; revised 90 FR 27398, June 26, 2025). The probability that denning polar bears will be disturbed by nearby Industry activities and the polar bears’

resulting responses to disturbance (den abandonment, early emergence from the den, or early departure from the den site) varies by denning stage (A summary of this information is available in supplemental information on <https://www.regulations.gov> in Docket No. FWS–R7–ES–2026–0694).

Impacts of Surface Activities on Walruses

Walruses do not frequently inhabit the Beaufort Sea. The likelihood of encountering walruses during Industry operations is low and limited to the open-water season. During the ITR period, Industry operations may occasionally encounter small groups of walruses swimming in open water or hauled out onto ice floes or along the coast. Industry monitoring data have reported 49 walruses between 1995 and 2023, with only a few instances of disturbance to those walruses (AES Alaska 2015; FWS unpublished data). If walruses are encountered during the specified activities, the interaction could potentially result in disturbance.

Anecdotal observations by walrus hunters and researchers suggest that males tend to be more tolerant of disturbances than females, and individuals tend to be more tolerant than groups. Females with dependent calves are considered least tolerant of disturbances. In the Chukchi Sea, disturbance events are known to cause walrus groups to abandon land or ice haulouts and occasionally result in trampling injuries or cow-calf separations, both of which are potentially fatal. Calves and young animals at terrestrial haulouts are particularly vulnerable to trampling injuries. However, due to the lack of previous walrus haulouts in the ITR region, the most likely potential impacts of the specified activities include displacement from preferred foraging areas, increased stress, energy expenditure, interference with feeding, and masking of communications. Any impact of human presence on walruses is likely to be limited to a few individuals due to their geographic range and seasonal distribution.

The reaction of walruses to vessel traffic is dependent upon vessel type, distance, speed, and previous exposure to disturbances. Walruses in the water appear to be less readily disturbed by vessels than walruses hauled out on land or ice. Furthermore, barges and vessels associated with Industry activities travel in open water and avoid large ice floes or land where walruses are likely to be found. In addition, walruses can use a vessel as a haulout platform. In 2009, during Industry

activities in the Chukchi Sea, an adult walrus was observed hauled out on the stern of a vessel.

Effects of Aircraft Activities on Walruses

Aircraft overflights may disturb walruses. Reactions to aircraft vary with range, aircraft type, and flight pattern, as well as walrus age, sex, and group size. Adult females, calves, and immature walruses tend to be more sensitive to aircraft disturbance. Walruses are particularly sensitive to changes in engine noise and are more likely to stampede when aircraft turn or fly low overhead. Researchers conducting aerial surveys for walruses in sea ice habitats have observed little reaction to fixed-winged aircraft above 457 m (1,500 ft) (FWS unpublished data). Although the intensity of the reaction to noise is variable, walruses are probably most susceptible to disturbance by fast-moving and low-flying aircraft (100 m (328 ft) above ground level) or aircraft that change or alter speed or direction. In the Chukchi Sea, there are recent examples of walruses being disturbed by aircraft flying in the vicinity of haulouts. It appears that walruses are more sensitive to disturbance when hauled out on land versus sea ice.

Effects of In-Water Activities on Walruses

Walruses hear sounds both in air and in water. They have been shown to hear from 60 Hz to 23 kHz in air (Reichmuth et al. 2020). Tests of underwater hearing have shown their range to be between 1 kHz and 12 kHz with greatest sensitivity at 12 kHz (Kastelein et al. 2002). The underwater hearing abilities of the walrus have not been studied sufficiently to develop species-specific criteria for preventing harmful exposure. However, sound level thresholds have been developed for members of the “other marine carnivore” group of marine mammals. For a discussion of these thresholds information is available in supplemental information on <https://www.regulations.gov> in Docket No. FWS–R7–ES–2026–0694. As we discussed in *Effects of In-Water Activities on Polar Bears*, the majority of the sound-producing instruments that will be used during the specified activities will not produce in-water sound above the threshold designated for Level B harassment or they do not produce sound within the hearing range of walruses.

If walruses are present within an ensounded area that reaches Level B harassment thresholds, noise may prevent ordinary communication between individuals and prevent them

from locating one another. The noise may also prevent walrus from using potential habitats in the Beaufort Sea and may have the potential to alter the frequency or duration of behaviors such as feeding, foraging, or nursing. The most likely response of walrus to acoustic disturbances in open water would be for animals to move away from the source of the disturbance. Displacement from a preferred feeding area may reduce foraging success, increase stress levels, and increase energy expenditures.

Impacts of the Specified Activities on Polar Bear and Walrus Prey Species

Information on the potential impacts of the specified activities on polar bear and walrus prey species can be found in the **SUPPLEMENTAL INFORMATION**. Based on this information, the FWS does not anticipate any substantial impacts on prey availability to polar bears or walrus as a result of AOGA's specified activities.

Potential Impacts of Oil Spills on Polar Bears and Walrus

The FWS reviewed the potential impacts of oil spills on the SBS stock of polar bears and walrus, as well as records of oil spills in the specified geographic region and evaluated oil spill response methods in the specified geographic region. Information from this review can be found in **SUPPLEMENTAL INFORMATION** at <https://www.regulations.gov> in Docket No. FWS-R7-ES-2026-0694. Based on this review, the likelihood of a large oil spill in the next 5 years is low. In the unlikely event of a large spill, the likelihood that spills would contaminate areas occupied by large numbers of polar bears or walrus is low. While individual polar bears could be negatively affected by a spill, the potential for a stock-level effect is low unless the spill contacted an area where large numbers of polar bears were gathered. Known polar bear aggregations tend to be seasonal during the fall, further minimizing the potential of a spill to impact the stock. Onshore oil spills would not impact walrus unless they occurred on or near beaches or oil moved into the offshore environment. In the event of a spill that occurs during the open-water season, oil could be released into the water column, or it could drift from onshore water sources to offshore areas, possibly encountering a small number of walrus. However, as was stated earlier, the Beaufort Sea is not within the primary range for walrus. Therefore, the probability of walrus encountering oil or waste products as a result of a spill from

Industry activities is low. Therefore, we conclude that the likelihood of a large spill occurring is low, but if a large spill does occur, the likelihood that it would contaminate areas occupied by large numbers of polar bears or walrus is also low. If a large spill does occur, we conclude that only small numbers of polar bears or walrus are likely to be affected, though some animals may be killed, and there would be only a negligible impact on the SBS polar bear stock or walrus population.

Take Estimates

Incidental Take Under the Marine Mammal Protection Act

Below we discuss three types of MMPA take and how such takes could occur in the polar bear and walrus contexts. This discussion is provided for context and background and does not necessarily reflect what is anticipated to result from the specified activities.

Lethal Take

Human activity may result in biologically significant impacts on polar bears and walrus. In the most serious interactions with polar bears (*e.g.*, vehicle collision, running over an unknown den causing its collapse), human actions can result in the mortality of polar bears. We also note that, while not considered incidental, in situations where there is an imminent threat to human life, polar bears may be killed. Additionally, though not considered incidental, polar bears have been accidentally killed during efforts to deter polar bears from a work area for safety and from direct chemical exposure (81 FR 52276, August 5, 2016). If unintentional disturbance of a female polar bear by human activity during the denning season caused the female to abandon her cubs in the den before the cubs can survive on their own, incidental lethal take of polar bear cubs would occur. Incidental lethal take of walrus could occur if a walrus were directly struck by a vessel or trampled by other walrus in a human-caused stampede at a walrus haulout site.

Level A Harassment

Human activity may result in the injury of polar bears or walrus. Level A harassment, for nonmilitary readiness activities, is defined as "any act of pursuit, torment, or annoyance which ... has the potential to injure a marine mammal or marine mammal stock in the wild" (16 U.S.C. 1362(18)).

Numerous actions can cause take by Level A harassment of polar bear cubs during the denning period, such as creating a disturbance that separates

mothers from dependent cubs (Amstrup 2003), inducing early den emergence during the late denning period (Amstrup and Gardner 1994; Rode et al. 2018), instigating early departure from the den site during the post-emergence period (Andersen et al. 2024), or repeatedly interrupting the nursing or resting of cubs to the extent that it impacts the cubs' body condition. As with lethal take, walrus are most vulnerable to Level A harassment when congregated in haulouts. The risk of stampede-related injuries increases with the number of walrus hauled out and with the duration spent on coastal haulouts. Calves and young walrus are the most vulnerable to suffer injuries and/or mortality (88 FR 53510, August 8, 2023).

Level B Harassment

Level B harassment, for nonmilitary readiness activities, is defined as "any act of pursuit, torment, or annoyance which... has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, feeding, or sheltering" (16 U.S.C. 1362(18)). Changes in behavior that disrupt certain behaviors or activities for the affected animal are indicative of take by Level B harassment under the MMPA. Such reactions include, but are not limited to, the following:

- Fleeing (running or swimming away from a human or a human activity);
- Displaying a stress-related behavior such as jaw or lip-popping, front leg stomping, vocalizations, circling, intense staring, or salivating for polar bears;
- Abandoning or avoiding preferred movement corridors such as ice floes, leads, polynyas, a segment of coastline, barrier islands, or other resting sites;
- Abandoning prey or feeding areas;
- Using a longer or more difficult route of travel instead of the intended path;
- Interrupting breeding, sheltering, or feeding;
- Moving away at a fast pace (adult) and polar bear cubs or walrus calves struggling to keep up;
- Temporary, short-term cessation of nursing or resting (cubs or calves);
- Ceasing to rest repeatedly or for a prolonged period (adults); or
- Loss of hunting opportunity due to disturbance of prey.

This list is not meant to encompass all possible behaviors; other behavioral responses may be indicative of take by Level B harassment. Relatively minor changes in behavior such as the animal

raising its head or temporarily changing its direction of travel are not likely to disrupt biologically important behavioral patterns, and the FWS does not view such minor changes in behavior as indicative of a take by Level B harassment. It is also important to note that eliciting behavioral responses that equate to take by Level B harassment repeatedly may result in Level A harassment.

Estimating Take

To evaluate incidental take of polar bears from the specified activities and inform our MMPA-required findings, we start by considering the estimates of likely incidental take and the analysis of associated impacts provided by the Request. We then identify some inherent uncertainties associated with forecasting impacts in this context, discuss legislative intent concerning how such uncertainties are to be considered in the ITR process, and effectuate that intent via further analysis that considers predictive model results. We then make findings that account for qualitative and quantitative considerations and data, the Request's estimates of likely incidental take, and FWS predictive model results. In light of the inherent uncertainties and challenges with quantifying take and the disparate results produced through different methodologies, the FWS considers its predictive model estimates alongside the requester's predictive estimates, which it derived from a distinct methodology (as described below in *The Request's Take Estimation Methods*), and various qualitative and quantitative factors. The FWS predictive model results for incidental take of polar bears were not a component of determining the MMPA-required findings in the Beaufort Sea ITRs issued between 1993 and 2016 because the model did not exist. As a part of a change introduced around that time for MMPA-required findings, the first Beaufort Sea ITRs using the FWS predictive model was the most recent 2021–2026 Beaufort Sea ITRs. The FWS is now further refining its approach to evaluate MMPA-required findings with additional information, including recent research, on-the-ground data, and the estimates provided by AOGA. The FWS also recognizes that this approach to rendering MMPA-required findings differs from the approaches used in ITRs and IHAs concerning polar bears since 2021, in which we relied on qualitative and qualitative considerations and predictive model results but not a separate set of incidental take estimates provided by the Requester. The reason for this change relates to the fact that the

present Request, in providing the estimates and analysis required by 50 CFR 18.27(d), uses methodologies and assumptions that differ from those employed by FWS's predictive modeling, resulting in different quantitative estimates. In this context, considering the additional types of analysis provided by the Request, while continuing to consider qualitative and quantitative considerations and data, and the FWS predictive modeling results, facilitates a more comprehensive analysis to inform FWS's MMPA-required findings. The approach here also preserves the utility of the regulatory requirement that requests for ITRs provide estimates of likely incidental take. This approach is robust, well-tailored to the present circumstances, and permissible under 16 U.S.C. 1371(a)(5)(A), which does not require quantification at all, let alone prescribe any particular methodology for rendering required findings.

Request's Critique of FWS's Methodology for Estimating Take

Appendix A of the Request provides a "Critique of USFWS's Methodology for Estimating Take and Rationale for AOGA's Evidence-Based Approach." In summary, the Request notes that the requester developed its methodology "because the Service's approach—based solely on numerical modeling—has proven to be flawed and legally insufficient in multiple ways." Appendix A provides four "primary flaws with the Service's approach"

The Request's Take Estimation Methods

The Request summarized its incidental take methodology as follows:

To estimate incidental take of polar bears and walrus that may occur during the activities described in this petition, AOGA used a weight of evidence (WOE) approach consistent with the guidelines published by the EPA [Environmental Protection Agency] in 2016 (EPA 2016) and Executive Order 14303 (The White House 2025), which states that "[w]hen scientific or technological information is used to inform agency evaluations and subsequent decision-making, employees shall apply a weight of scientific evidence approach." The WOE framework offers a structured approach to combine multiple sources of evidence and draws on field-verified data to support estimates of incidental harassment of polar bears and Pacific walrus that may occur during the class of oil and gas activities described in [the Petition]. (Request, p. 3–1).

The Request lists "[t]he lines of evidence used to estimate incidental Level B takes by harassment of polar bears and Pacific walrus during the class of oil and gas activities described

in [the Petition] and "also used to evaluate and assess the likely anticipated impacts on marine mammals" The Request's lines of evidence are (Request, pp. 3–2, 3):

- 2,646 records of 2,830 polar bear sightings within the petition area reported by the oil and gas industry (2014–2024);
- Incidental Level B takes by harassment reported during oil and gas activities within the petition area (2014–2024);
- Aerial Surveys of Arctic Marine Mammals (ASAMM) program data for the period (2013–2019);
- Denning bear case studies (1974–2024) (appendix C.3);
- Documented polar bear dens detected within the petition area using AIR (2013–2024);
- Documented polar bear dens detected within the petition area by personnel on the ground (2006–2024);
- Documented bear responses when mitigation measures were applied by Industry (*i.e.*, avoidance and minimization measures applied for dens located near Industry; section 3.7);
- The type, nature, and extent of monitoring protocols carried out by Industry to observe polar bears and dens in the vicinity of oil and gas activities;
- Literature review—over 620 data sources (*i.e.*, scientific literature, monitoring reports, field data, etc.) were reviewed and over 240 sources are cited in this petition;
- LOA monitoring reports of Pacific walrus sightings (2023–2024);
- Sensitivity Analyses of the USFWS Surface Bear Model (USFWS 2021b) and USFWS Denning Bear Model (USFWS 2025a) (appendix C); and
- Comparison of USFWS Denning and Surface Model results using USFWS parameters and AOGA Parameters (USFWS 2021b) (USFWS 2025a) (appendix C).

The Request further notes that:

To estimate take of polar bears and Pacific walrus, the weighted body of evidence listed in table 3–1 was evaluated in terms of quantity (*i.e.*, more lines of evidence enhances reliability), coherence (*i.e.*, logical alignment among different types of evidence improves reliability), lack of bias (*i.e.*, evidence is more reliable when consistent results are observed across studies or time periods), and comprehensiveness (*i.e.*, evidence that covers a broad spectrum of relevant information).

Among the lines of evidence, direct field observations (such as the LOA database (in the Request at appendix C.2), historical bear denning case studies, and walrus sightings) and scientific literature received the highest weighted scores for overall relevance, strength, and reliability.

Higher-weighted evidence is given proportionally more influence in estimating

take in this petition. This does not mean weaker evidence is ignored, but rather that take estimates are guided more by the strongest, most reliable, and most relevant data. AOGA considered all the evidence and determined that the best evidence on which to base a take estimate is the highest 5 years of takes over the last ten years.

The LOA database (appendix C.2) is the most extensive empirical dataset collected regarding industry polar bear monitoring in the world and is well-suited to inform this petition as the data were collected during the same classes of activities, in the same environment and for the same animal populations for which this petition is submitted as described in section 1.2. These data, along with evidence from peer reviewed literature are the best evidence from which to assess potential incidental harassment of polar bears on the surface (*i.e.*, non-denning polar bears). In addition, a total of 64 denning bear case studies, of which 23 are representative of industry activities, were reviewed to assess potential incidental harassment of denning bears for this petition. These written accounts of human discovered dens describe the class of nearby human activities (if any), den location and phenology (*i.e.*, timing), and observed polar bear behaviors, as well as records of dens documented by extensive industry surveys and on-the-ground field operations within the petition area provide the basis for the assessment of potential disturbance to dens during industry activities. Historical data on denning bears dating back to 1974 were used to develop proportional outcomes of potential harassment (rates) and correlative distances for denning bears exposed to human activities, and demonstrate patterns of preferential denning regions in the petition area. Direct field evidence gathered each year using AIR surveys and personnel on the ground offers the most accurate information on potential dens in the petition area. Real data on probable den locations are mapped and distributed to operations every denning season so that dens may be avoided by industry.

The USFWS models for surface and denning bears were considered as relevant evidence, but they received less weight than other evidence such as field observations because sensitivity analyses show the models have weaknesses with respect to reliability and strength.

To estimate the incidental take of Pacific walruses, walrus sighting data reported by vessel-based and aerial surveys (Clarke et al. 2017a, 2018a, 2019, Clarke et al. 2015, Clarke et al. 2017b, Ireland et al. 2016), as well as recent industry observation data were the basis for assessing potential interaction with Pacific walruses during oil and gas industry activities. Notably, the sighting data used in this petition are records of the presence of walruses, not take by incidental harassment. Industry monitoring reports (LOA 24-INC-07, LOA 24-INC-08, and LOA 24-INC-09) reported either no takes of Pacific walruses by incidental harassment or it was unknown whether take occurred. For this reason, this petition uses the Pacific walrus sighting data from these collective sources to estimate Level B take by incidental harassment. These

data sources summarize real-world observations, providing direct evidence of interactions between oil and gas activities and polar bears and Pacific walruses, and the result of those exposures. Assessments grounded in these lines of evidence offer the most accurate reflection of what occurs during the oil and gas activities outlined in this petition, instead of relying exclusively on assumptions and modeling. The evidentiary value of this approach, supported by the scientific literature cited throughout this petition, clearly presents patterns of species' presence and interaction with oil and gas operations within the petition area to pragmatically evaluate future interactions. These real-world datasets from which this petition tiers, represent documented proof of complex animal behaviors at the interface with industry activity. (Request, p. 3-10-11).

The Request details a number of reasons for having a high level of confidence in operators' ability to detect polar bears near Industry activities, including "scientific methods used to detect surface bears and bear dens," required and effective "[t]raining specific to polar bear identification, reporting and mitigation," and "emphasis on vigilance and reporting" based on polar bears being a "threat to human safety." (Request, p. 3-53; see also Request, p. 3-54 stating "[w]hile it is theoretically possible that a bear or bear den in proximity to Industry could go undetected, it is highly unlikely given the necessary vigilance and extensive and continuous monitoring that occurs during oil and gas activities."). The effectiveness of mitigation measures is also addressed (see, *e.g.*, Request, section 3.7). Provided below is a summary of the Request's estimates of incidental take concerning surface (*i.e.*, non-denning) polar bears and denning polar bears.

AOGA Estimates: Surface Polar Bears During All Activities

In estimating the likely incidental take of surface polar bears, the Request states that "the most recent 10-year period of observational data. . . provides the most reliable estimation of future incidental take of surface bears resulting from the [specified activities]" because "[t]he 2014-2024 period of observational data best reflects recent patterns in polar bear distribution and habitat use in the [Request] area, as well as industry activity, monitoring methods, and reporting practices that are consistent with today's regulatory and operational environment" (Request, p. 3-42). The Request states that the average number of incidental Level B harassments observed "for the recent 10-year period (2014-2024) was 16, with a standard deviation of (SD) of 9.95 and an annual range of 4-35" (Request,

p. 3-42). Also noted is "a trend of increased presence of polar bears in coastal areas and their duration on land, particularly during the ice-free season." For the purposes of estimating incidental Level B harassment of surface polar bears from the specified activities, the Request "assumes these trends will continue and therefore uses the five highest incidental take years from the most recent 10-year period of observational data as the most reasonable representation of incidental take levels of non-denning bears for the 2026-2031 period" (Request, p. 3-42). This approach resulted in an estimated "annual average of 24" incidental Level B harassments of surface polar bears, "with a SD of 7.62 and an annual range of 15-35" (Request, p. 3-42). The number was derived using a dataset that includes Level B harassment events that occurred during vessel-based and aircraft-based activities, therefore the FWS has assumed AOGA intends the estimate to encompass these activities as well. The Request does not anticipate any forms of incidental take of surface polar bears other than Level B harassment.

AOGA Estimates: Denning Polar Bears

The Request states that "[b]ased on the data from the five highest years of dens detected near industry during the last decade (Request, table 3-16), an estimate of 1.8 dens/year may be present near industry activities" (Request, p. 3-52). AOGA conducted a denning case study review that evaluated 64 case studies, 23 of which they found to be relevant to Industry, to "infer the disposition of denning bears exposed to industry activity" (Request, p. 3-47). They provide a full description of their methodology in section 3.5 and appendix C of their Request. The results of AOGA's denning case study review are then summarized as follows: "87 percent of dens resulted in no effect, 11 percent resulted in the Level B incidental harassment and 2 percent resulted in Level A harassment" (Request, p. 3-53). Applying these probabilities in light of the estimated number of dens near Industry activities, and assuming three polar bears per den (a sow and two cubs), the Request estimates that "23 denning bears would experience no effect, 3 denning bears would experience Level B incidental harassment, and the probability of Level A harassment is exceedingly low (less than one over the 5-year period)" (Request, p. 3-53).

AOGA Estimates: Total Take

In sum, with respect to likely incidental take over the 2026-2031

period, the Request estimates the Level B harassment of 123 polar bears (120 surface polar bears and 3 denning polar bears) and no other forms of take. This consists of an annual average of 24 incidental Level B harassments of surface polar bears, which includes vessel-based and aircraft-based activities and an additional 3 Level B harassments of denning polar bears across the 5 years. AOGA estimates less than one Level A harassment over the 5-year period and does not anticipate any lethal take.

Consideration of Model Results

The Request also discusses the methods used by the FWS to estimate impacts to polar bears in recent regulatory processes (Request, section 3.3 and appendix A). This discussion asserts various flaws in FWS's modeling approach and characterizes FWS model outputs as substantially overestimating impacts. For comparative purposes, the Request reports two sets of results from AOGA-conducted runs of FWS's surface and denning models: one set described as using FWS parameters, and one set using parameters developed by AOGA (Request, p. 3–13, tables 3–6 and 3–7). Each set of results is further compared to AOGA's accounting of reported take reflected in their LOA database (Request, p. 3–16).

Uncertainties

Disparities in projections of future impacts can result not only from different interpretations of existing data, but also from use of different assumptions and methods to account for uncertainties. In the present context, several inherent uncertainties increase the difficulty of accurately estimating the future impacts of the specified activities on polar bears. Most notably, based on general observational data and reports along with various scientific studies:

- There is variability in how polar bears use the ITR region each year and in how individual polar bears respond (if at all) to Industry activities. This is demonstrated by the 43 Level B takes observed and reported by two operators in the ITR region for calendar year 2025, which is more than a standard deviation above the average annual numbers of the Level B harassment requested.
- The detailed observation reports submitted by operators pursuant to MMPA take authorization requirements provide valuable data concerning, among other things, polar bear distribution in the ITR region and how polar bears react (if at all) to industrial stimuli. However, ambient conditions common to the ITR region (e.g.,

darkness, snow, fog, and wind) can reduce the ability to observe all polar bears (and impacts, if any) in the vicinity of Industry activities.

- During the denning timeframe, when a sow's abandonment of her maternal den prior to her cub(s) developing sufficient strength and/or ability to thermoregulate would be presumed to result in mortality of the cub(s), denning sows are thought to exhibit a relatively higher tolerance to disturbance. The existing dataset contains no definitive evidence that an Industry activity caused a maternal den abandonment that resulted in cub mortality. That said, given environmental conditions, the existence of scavengers, and difficulty of observation, it remains possible that this scenario has occurred but was not fully observed. It is also possible that if maternal den abandonment occurred, it was from factors outside Industry activity or that there were no cubs when a den was abandoned. Scenarios outside Industry activity should not be considered take by Industry.

- Several scientific studies have found a correlation between premature maternal den emergence and/or premature maternal den site departure and cub survival, suggesting these behavioral responses may result in a decline in cub fitness and associated reduction in cub survival probability. Observations indicating that denning polar bears prematurely emerged from their den and/or prematurely departed from their den site in response to Industry disturbance are rare. Assessment of this potential behavioral response is complicated by natural variability in the times that undisturbed polar bears establish their dens, remain in their dens, and remain at their den sites post-emergence. Any disturbance-caused decline in cub fitness would be difficult to observe, and any associated cub mortality would likely manifest after the family unit has departed from the observable area and onto the sea ice.

- The exact numbers and precise locations of maternal polar bear dens that will be established in the ITR region during each winter of the 2026–2031 period is unknown. The exact percentage of those dens that will be successfully detected and avoided by operators is also unknown. Therefore, a proportion of known/avoided to unknown/not avoided cannot be calculated.

Legislative Intent

The FWS addressed how to consider uncertainties regarding the probability and extent of potential impacts in the ITR context when it developed its

implementing regulations at 50 CFR 18.27. Responding to a variety of public comments in its 1989 final rule (54 FR 40338, September 29, 1989), the FWS confirmed that the approach described in its proposed rule accurately interpreted the legislative intent behind the 1986 Amendments to the MMPA:

“If potential effects of a specified activity are conjectural or speculative, a finding of negligible impact may be appropriate. A finding of negligible impact may also be appropriate if the probability of occurrence is low but the potential effects may be significant. In this case, the probability of occurrence of impacts must be balanced with the potential severity of harm to the species or stock when determining negligible impact. In applying this balancing test, the Service will thoroughly evaluate the risks involved and the potential impacts on marine mammal populations. Such determinations will be made based on the best available scientific information.” (54 FR 40338 at 40343, September 29, 1989, citing 53 FR 8473 at 8474, March 15, 1988; accord, 132 Cong. Rec. S16305 (Oct. 15, 1986)).

The 1989 final rule continues:

“The Service recognizes the tension that exists between development interests and wildlife resource interests when restrictions on development are predicated upon the existence of adverse impacts that are speculative in nature. To resolve these difficult situations, the legislative history of the 1986 Amendments endorsed the use of a balancing approach to weigh the likelihood of occurrence against the severity of the potential impact: The degree of certainty of occurrence required in these judgments should be inversely proportional to the resultant harm to the overall population. 132 Cong. Rec. S16305 (Oct. 15, 1986). In applying this balancing test, the Service must, of necessity, evaluate each request for specific regulations on a case-by-case basis” (54 FR 40338 at 40343, September 29, 1989).

In the present context, where there exists substantial uncertainty as to the potential impacts of the specified activities, and where high rates of human-caused cub mortality (which has not been observed in the ITR region) could represent a significant effect to the SBS stock of polar bears, the FWS considered the results of its predictive modeling and AOGA's take estimates and other qualitative factors to further inform its balancing. While the legislative history on this point concerns “negligible impact” analyses, the FWS will utilize a similar, comprehensive approach for all MMPA-required findings.

The FWS's Predictive Model Results

The FWS conducts predictive modeling that entails four main components: processes for estimating incidental take of non-denning polar bears during surface activities, aircraft

activities, and vessel activities, and a process for estimating incidental take of denning polar bears during all operations. A detailed description of these processes, along with the model code and most recent data inputs, is provided at FWS-R7-ES-2025-1628 on <https://www.regulations.gov>. The FWS's predictive model results provide, among other things, a basis for assessing the probability and severity of potential impacts that the scientific literature suggests are possible but have not been observed or are rarely observed in the ITR region.

The FWS recognizes that all predictive analyses and models have limitations. The FWS further recognizes that its predictive models contribute to take estimates that have exceeded (and are expected to exceed) the number of events where biological consequences indicative of take are observed to result from Industry activities. This is partly because the predictive models are one way to estimate harassment consistent with the MMPA's harassment definitions, which encompass certain acts which have "the potential to" result in certain biological consequences, and to account for any unobserved take. When addressing uncertainties, the models incorporate assumptions that attempt to strike a balance between potential overestimates and potential underestimates, but, overall, are more likely to contribute to an overestimate, rather than an underestimate, of the incidental take of polar bears. Because of these limitations and the likely overestimates of incidental take by its predictive models, this ITR considers a range of qualitative factors, AOGA's take estimates, and its predictive models altogether as the "best available scientific evidence" to support its determinations. FWS acknowledges its awareness this rule represents a shift in approach from that taken in the 2021–2026 ITR and the proposed ITR regarding what constitutes the "best available scientific evidence." For the reasons discussed here and throughout the preamble, the FWS concludes that the approach to the "best available scientific evidence" in this rule: (1) is permissible under the MMPA; (2) is a better approach than that reflected in the 2021–2026 ITR and the proposed ITR; and (3) is supported by good reasons.

Over the years, the FWS has continually incorporated new data as it becomes available and refined its modeling parameters to improve accuracy to the extent practicable. However, FWS recognizes that solely considering its predictive modelling estimates would not amount to

considering the "best available scientific evidence" required to make its determinations.

Each refinement of modeling parameters has been described in the first ITRs or IHA review process in which they were employed (e.g., 90 FR 27398, June 26, 2025; and 90 FR 2718, January 13, 2025). More recent refinements, in addition to incorporating the latest available data, introduced in the present analysis are as follows:

- **Assessment of the rate of incidental take preceding intentional take:** In past incidental take analyses, we explained that intentional take events are usually preceded by incidental Level B harassment, and that since sufficient data were not available to support application of a reliable correction factor, we included all intentional take events in our calculations of incidental take rates as a proxy for estimating incidental take in this context. We identified this assumption as "conservative" in the rulemaking process for the 2021–2026 Beaufort Sea ITRs (86 FR 42982 at 43049, August 5, 2021). To increase accuracy in future analyses, we used a structured review process with designated decision rules to revisit records of intentional take from 2014–2024 to determine whether incidental Level B harassment occurred or potentially occurred prior to the intentional Level B harassment. We found 29 percent of intentional encounters were not preceded by incidental harassment and we apply this correction factor in the present analysis.

- **Estimation of polar bear re-sighting rate:** In past incidental take analyses, we estimated numbers of incidental take of polar bears but lacked sufficient data to further estimate how many individual polar bears would be subjected to those takes. We then provided "small numbers" determinations that identified and applied a conservative assumption that each estimated take would accrue to a different individual polar bear (e.g., 82 FR 42982 at 43039, August 5, 2021). We describe below in our efforts to refine this assumption.

- **Development of Offshore Polar Bear Encounter Rate:** In past incidental take analyses, the FWS has used the coastal polar bear encounter rate to estimate take from offshore activities, while acknowledging the rate was conservative and greater than the actual rate of offshore encounters. At the recommendation of AOGA, we explored the use of data from the National Marine Fisheries Service Aerial Survey of Arctic Marine Mammals (ASAMM). We subset the ASAMM dataset to account for decreased visibility due to sea state

and observation limitations. A summary of this information is available in supplemental information on <https://www.regulations.gov> in Docket No. FWS-R7-ES-2026-0694. The effort enabled FWS to develop an offshore polar bear encounter rate that enables more accurate estimates of take from vessel activity beyond the barrier islands.

FWS Predictive Model Estimates: Surface Activities

The FWS analyzed take by Level B harassment for polar bears that may be encountered and potentially impacted during AOGA's specified activities within the specified geographic region using the predictive formula presented in the 2021–2026 Beaufort Sea ITRs (hereafter 2021–2026 ITRs; 86 FR 42982, August 5, 2021). The formula incorporates spatio-temporally specific encounter rates and temporally specific harassment rates. We updated the encounter and harassment rates using polar bear encounter records submitted since the promulgation of the 2021–2026 ITRs. A detailed description of this process, which included reassessment of the dates for open-water and ice seasons, evaluation of the rate of incidental take preceding intentional take, and establishment of a polar bear re-sighting rate as described above can be found in supplemental information on <https://www.regulations.gov> in Docket No. FWS-R7-ES-2026-0694. During FWS's preliminary review of their Request, AOGA provided the FWS with digital geospatial files that included the expected human occupancy for each individual structure (e.g., each road, pipeline, well pad) of their proposed activities for each month of the ITR period.

FWS Predictive Model Estimates: Aircraft Activities

Polar bears in the ITR region will likely be exposed to the visual and auditory stimulation associated with the applicant's fixed-wing and helicopter activities; however, these impacts are anticipated to be minimal and short-term. Low-flying aircraft activities may cause disruptions in the normal behavioral patterns of polar bears as either an auditory or visual stimulus, thereby resulting in incidental Level B harassment. To reduce the likelihood that polar bears are disturbed by aircraft, AOGA has included a variety of mitigation measures, such as minimum flight altitudes over polar bears and restrictions on hovering over polar bears. Meanwhile, the Request also states that certain aviation activities must be flown at low altitudes by

design, including airborne gravity and airborne magnetic data collection, environmental (e.g., avian, mammal, and ice) surveys, cultural and archeological resource surveys, and summer cleanup operations. We estimated the number of polar bears expected to be harassed by these low-flying aircraft activities using an estimate of the number of flight hours in each season and polar bear density zone (i.e., coastal vs. inland zone). These estimates were used as inputs in the take calculation formula presented in the revised 2021–2026 ITRs (90 FR 27398, June 26, 2025). Disturbances from aircraft activity are expected to have no more than short-term, temporary, and minor impacts on individual polar bears.

FWS Predictive Model Estimates: Denning Polar Bears

We used the analytical methods presented in previous take authorizations (e.g., 90 FR 27398, June 26, 2025) to estimate the effects of the specified activities on denning polar bears. The statistical model consists of 10,000 iterations of simulated dens that are exposed to the specified activities and potentially disturbed. We estimated 6.5 (median=6; 95 percent posterior credible interval (CI): 1–14) land-based dens in the area of specified activity in AOGA's Request and within a 1.6-km (1-mi) buffer of the activities, annually. Estimates for different levels of take are presented in supplemental information on <https://www.regulations.gov> in Docket No. FWS–R7–ES–2026–0694. The distributions of simulated Level A harassments as well as lethal takes due to den abandonment were non-normal and heavily skewed, as indicated by markedly different mean and median values. The heavily skewed nature of these distributions has led to a mean value that is not representative of the most common model result.

Due to the low probability of one or more lethal takes occurring either annually (0.12) or in 5-year aggregate (0.43), along with a median value of 0 for either time period, we do not anticipate the specified activities will result in lethal take of polar bears. These estimates do not account for certain mitigation measures that were incorporated into AOGA's Request but have benefits that cannot be quantified in the FWS's modeling approach (e.g., personnel training). Implementation of these mitigation measures could further reduce the probability of take and minimize impacts on denning polar bears.

FWS Predictive Model Estimates: Vessel Activities

We used a method similar to that described in *FWS Predictive Model Estimates: Aircraft Activities* to estimate the potential effects of maritime activities on polar bears. As we discussed in *Effects of In-Water Activities on Polar Bears*, we do not anticipate harassment of polar bears due to in-water noise production. However, vessels may encounter polar bears in the open water or on ice floes, and polar bears may be harassed by vessel activity. We used the formula that incorporates spatio-temporally specific encounter rates and temporally specific harassment rates described in *FWS Predictive Model Estimates: Surface Activities* and Supplemental Information to estimate the potential Level B harassment associated with vessel activity. A detailed description of the methodology is provided in Supplemental Information.

Pacific Walrus: All Interactions Estimated Harassment of Walruses

In their Request, AOGA has presented an estimate of potential walrus harassment that is consistent with methods presented in the past and at present by FWS. With the low occurrence of walruses in the Beaufort Sea, and given the mitigation measures incorporated into the Request, the only anticipated effects from the specified activities in the Beaufort Sea are short-term behavioral alterations of small numbers of walruses. Most walrus encounters within the ITR region in the past 10 years have been of solitary walruses or groups of two walruses. A group of eight walruses was encountered during barging activity within the ITR region in 2025. The vessel encountered an additional 11 walruses along their voyage before entering the ITR region. While highly unlikely that a group of walruses will be encountered during the proposed activities, we estimate that no more than 20 walruses annually will be taken by Level B harassment during the specified activities. Harassment of no more than 20 walruses may occur from behavioral responses to vessels, or from behavioral changes in response to noise greater than 160 dB re 1 μ Pa created by in-water activities.

Critical Assumptions

In order to conduct this analysis and estimate the potential amount of Level B harassment and Level A harassment, several critical assumptions were made (for information regarding Critical Assumptions, see supplemental

information on <https://www.regulations.gov> in Docket No. FWS–R7–ES–2026–0694).

FWS Predictive Model Estimates: Sum of Harassment From All Sources

The FWS predictive modeling methods estimated 94 takes by Level B harassment of 46 individual polar bears annually. This estimate from the models was comprised of 85 takes of 37 polar bears during surface interactions, 1 take of 1 polar bear during aircraft activities, 3 takes of 3 polar bears during vessel activities, and 5 takes of 5 denning polar bears. When these estimates from the models were aggregated over the 5-year period of the ITR, the modeling methods estimated 432 takes by Level B harassment of 209 polar bears. Of these takes estimated by the models, 395 takes of 172 polar bears were during surface interactions, 5 takes of 5 polar bears were during aircraft overflights, 10 takes of 10 polar bears were during vessel activities, and 22 takes of 22 polar bears were during denning. When aggregating model results over the 5-year period, the model also estimated 13 takes by Level A harassment of 13 denning cubs. We do not anticipate lethal take or Level A harassment would occur outside of impacts to denning polar bears because the level of sound and visual stimuli experienced by a polar bear on the surface would not be significant enough to result in injury or death. Denning polar bears, however, may be subject to repeated exposures, significant energy expenditure from den abandonment or departure, or potential impacts to a cub if the den is abandoned or departed prematurely.

Determinations and Findings

Small Numbers

For our small numbers determination, we consider qualitative considerations, the Request's estimates of likely incidental take, and FWS predictive model results to determine whether the number of polar bears and walruses to be subjected to incidental take are respectively small relative to the population size of the species or stock. These considerations are listed below.

1. Within the specified geographical region, the area of Industry activity is expected to be small relative to the ranges of polar bears and walruses. Specifically, the area of specified activities overlap with 0 percent of the walrus range and 1.9 percent of the US portion of the SBS polar bear range. Walruses and SBS polar bears range well beyond the boundaries of the ITR region. As such, the ITR region itself represents only a subset of the potential

area in which these species may occur. Thus, the FWS concludes that a small portion of the walrus population and SBS polar bear stock may be present in the specified geographic region during the time of the specified activities.

2. The majority of human-polar bear interactions will result in no effect or short-term, temporary behavioral changes. When developing estimates for Level B harassment, the FWS has estimated that there is a 99 percent chance that at least 88 percent of encounters with polar bears on the surface in the open-water season and 80 percent of encounters with polar bears on the surface in the ice season are expected to result in no significant change in a biologically important behavior, and we do not consider those interactions to result in a take. The remainder of polar bear encounters on the surface are anticipated to result in short-term, temporary changes in behavior that are indicative of Level B harassment of the animal.

3. Monitoring requirements and adaptive mitigation measures are expected to significantly limit the number of incidental takes of animals. Holders of an LOA will be required to adopt monitoring requirements and mitigation measures designed to reduce potential impacts of their operations on walruses and polar bears. A full description of the mitigation, monitoring, and reporting requirements associated with an LOA can be found in 50 CFR 18.126–18.128. The Service recognizes that while the benefit of these monitoring and adaptive mitigation measures may not be expressly accounted for in the numerical estimates that follow, to the extent such measures were also used in the past, any mitigative benefit may already be reflected in the LOA database that inform the quantitative estimates.

4. The estimated number of polar bears and walruses that will be harassed by Industry activity is small relative to the number of animals in their stocks.

In their Request, AOGA estimates Level B harassment of 24 polar bears on average each year, plus the estimated 3 denning bears that may be harassed over the entire 5 years, which, assuming all 3 denning bears were harassed in the same year, would be 2.9 percent of a 907-individual SBS polar bear stock. The FWS released a draft stock assessment report (SAR) for the SBS polar bear population on January 2, 2025 (90 FR 114), in which the SBS polar bear stock has changed to 819 polar bears, largely due to a shift in the border between the SBS and North Beaufort Sea stock. Should this draft SAR be finalized, 27 polar bears

constitutes 3.3 percent of the SBS polar bear stock.

The FWS predictive model estimates that AOGA's proposed specified activities in the specified geographic region will involve the incidental take of no more than 209 polar bears during the 5-year period of these ITRs (see *FWS Predictive Model Estimates: Sum of Harassment from All Sources*). The highest estimated number of annual Level A harassment events is 3. The highest total number of polar bears estimated to be incidentally taken by Level A or Level B harassment during any year would be 49, which is 5.4 percent of the best available estimate of the current SBS polar bear stock size of 907 animals (Bromaghin et al. 2015; Atwood et al. 2020; $((49 \div 907) \times 100 \approx 5.4 \text{ percent})$), and 6.0 percent of a 819-individual SBS polar bear stock $((49 \div 819) \times 100 \approx 6.0 \text{ percent})$. The FWS considered both sets of numerical estimates in its determination that the number of polar bears that would be incidentally taken is small relative to the size of the SBS polar bear stock.

As stated previously, walruses are extralimital in the Beaufort Sea, with nearly the entire walrus population found in the Chukchi and Bering Seas. Industry monitoring reports have observed no more than 49 walruses between 1995 and 2023, with only a few observed instances of disturbance to those walruses (AES Alaska 2015; FWS unpublished data). Between those years, observations were typically of a single or two animals, often separated by several years. At most, only a tiny fraction of the walrus population, which is composed of hundreds of thousands of animals (Beatty et al. 2022), may be found in areas potentially affected by AOGA's specified activities. We do not anticipate that seasonal movements of a few walruses into the Beaufort Sea will significantly increase over the 5-year period of these ITRs. The estimated incidental take of 20 walruses per year from a population numbering approximately 257,193 animals represents 0.008 percent of that population $((20 \div 257,193) \times 100 \approx 0.008 \text{ percent})$. The FWS considered these numerical estimates in its determination that the number of walruses that would be incidentally taken is small relative to the size of the walrus population.

Small Numbers Conclusion

Based on our consideration of the qualitative and quantitative factors considered above, we find that the specified activities will incidentally take only small numbers of SBS polar bears and walruses.

Negligible Impact

We find that AOGA's specific activities would result in a negligible impact on the SBS stock of polar bears. For our negligible impact determination, we consider the following:

1. The number of polar bears that use the terrestrial habitat of the North Slope is small in relation to the entire SBS polar bear stock. The distribution and habitat use patterns of polar bears indicate that relatively few polar bears will occur in the specified areas of activity at any particular time and, therefore, few polar bears are likely to be affected.

2. Mitigation measures will reduce potential impacts. Under these ITRs, LOA holders will be required to adopt monitoring requirements and mitigation measures designed to reduce the potential impacts of their operations on polar bears. Den detection surveys for polar bears and adaptive mitigation and management responses based on real-time monitoring information will be used to avoid or minimize interactions with polar bears and, therefore, limit potential disturbance of these animals.

3. The monitoring data, analyses, and rulemakings dating back to the early 1990s, as detailed in the Request. Based on the monitoring and reporting conducted by the oil and gas industry under the current and prior ITRs, the FWS considered its substantial database of information regarding the scope, frequency, and anticipated effects of interactions that may occur incidental to oil and gas activities in and near the Beaufort Sea. Since the 1990s, the FWS has consistently concluded that the incidental take authorized under Beaufort Sea ITRs has no more than a "negligible impact" on polar bears.

4. The estimates in the Request, based on the five highest incidental take years from the most recent 10-year period of observational data, include an annual average of 24 Level B harassments of 24 polar bears on the surface, plus an estimated 3 Level B harassments of 3 denning bears at some point during the 5-year period. The estimates in the Request assess the probability of Level A harassment as "exceedingly low (less than one over the 5-year period)" and do not estimate that any lethal take will occur during the 5-year period noting that "[i]ncidental lethal take of a polar bear due to oil and gas activities in the petition area has never been documented."

5. The majority of human-polar bear interactions will result in no effect or short-term, temporary behavioral changes. When developing estimates for Level B harassment, the FWS has

determined that there is a 99 percent chance that at least 88 percent of encounters with polar bears on the surface in the open-water season and 80 percent of encounters with polar bears on the surface in the ice season are expected to result in no significant change in a biologically important behavior, and we do not consider those interactions to result in a take. The remainder of polar bear encounters on the surface are anticipated to result in short-term, temporary changes in

behavior that are indicative of Level B harassment of the animal.

6. Based on primary literature (Patil et al 2022 and the USGS den catalog, few dens would occur in proximity to Industry activities. Roughly half of SBS polar bear dens are not found on land, but rather on the sea ice, and would not overlap spatially with Industry activities. Denning simulations show that on average six dens are estimated to occur within 1.6 km (1 mi) of the specified activities during each of the

next five denning seasons. This number represents roughly 5 percent of the approximately 120 SBS polar bear dens that are established each year. The mitigation measures included in the Request reduce the number of dens whose occupants are estimated to be disturbed by the specified activities to 2.4 percent of the land-based dens and 1.2 percent of all dens in the SBS polar bear stock (figure 2, below).

Proportion of SBS land based dens with Level A disturbance

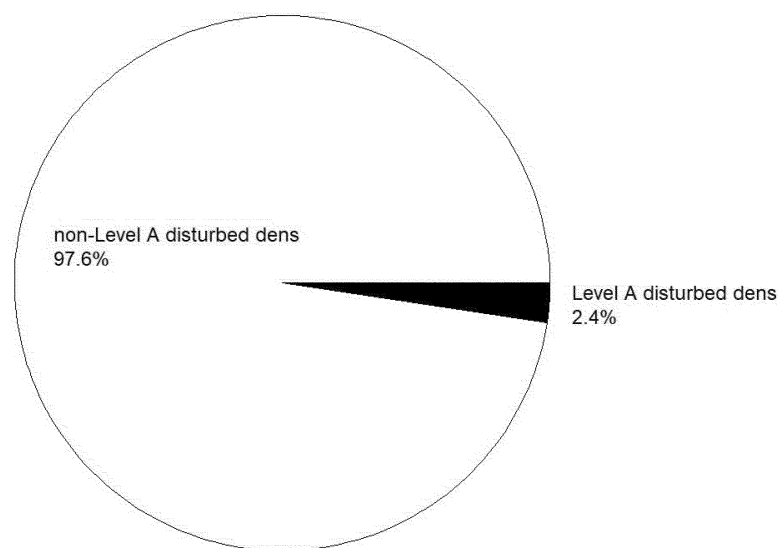


Figure 2—Proportion of SBS land-based dens whose occupants are estimated to experience Level A disturbance each year. Land-based dens represent roughly half of the SBS maternal polar bear dens established each year (Olson et al. 2017).

7. The FWS predictive model estimates 13 cubs may experience Level A harassment as a result of the specified activities over a period of 5 years. Even if 13 cubs actually experience Level A harassment over 5 years, that would not alter the distribution of cub survival probabilities for the SBS polar bear stock. The impact of these estimated harassment events can be quantified by first evaluating the estimated survival consequence to individual cubs and then estimating associated changes in overall survival rates for the stock. Lacking data regarding individual cub survival, we conduct this analysis using the metric of litter survival, which has been estimated by relevant empirical studies included in the supplemental information on <https://>

www.regulations.gov in Docket No. FWS-R7-ES-2026-0694). While the metric does not account for partial litter loss (because a sow observed with one cub in the spring is assumed to have had an original litter size of one cub), it also cannot account for natural litter sizes of zero (because a sow observed with no cubs in spring is assumed to have lost a litter). Because this metric is derived from the available scientific studies (*i.e.*, Rode et al 2018, Andersen et al 2024,), and because it is not biased in only one direction, we feel it is the most appropriate available metric to reflect potential impacts on cub survival.

The denning analysis model allows us to compare the probability of litter survival using both the undisturbed and

disturbed (if applicable) emergence and departure dates of simulated dens. With this information, we can estimate the average decrease in survival probability that can be attributed to simulated Industry disturbance. From the model, the mean probability of litter survival for dens experiencing Level A harassment decreased 12.6 percent after simulated disturbance (pre-disturbance 85.5 percent, post-disturbance 72.9 percent).

When examining the potential impact of 13 Level A harassment events at the stock level (as estimated by the model), we consider the low percentage of SBS dens with cubs that the model anticipates will experience Level A harassment. Given that 2.4 percent of land-based dens within the SBS stock

are anticipated to experience Level A harassment in any year, the modeled 12.6 percent decrease does not alter or shift the overall survival probability distribution for the SBS stock (figure 3, below). Further, if we examine the modeled distribution of survival rates for the entire land-based SBS stock, counting for potential decrease in survival due to both potential Level A harassment and potential lethal take via den abandonment (which is not

anticipated), the model shows no more than a minor change in distribution, as is illustrated by the similarities of the graphs in figure 3.

In the most impactful year of the ITR, we there will be an average of 54 litters with cubs at the start of the year (some sows will naturally have no cubs). After applying the undisturbed survival rates to these simulated dens, we estimate an average of 46.7 dens will have at least one surviving cub in the spring. The

estimate from the model decreases to an average of 46.4 dens when accounting for disturbance, indicating the effect of disturbance at the stock level is statistically insignificant. Further, it is important to acknowledge that roughly half of SBS polar bear dens are not found on land, but rather on the sea ice, and would not overlap spatially with the specified activities.

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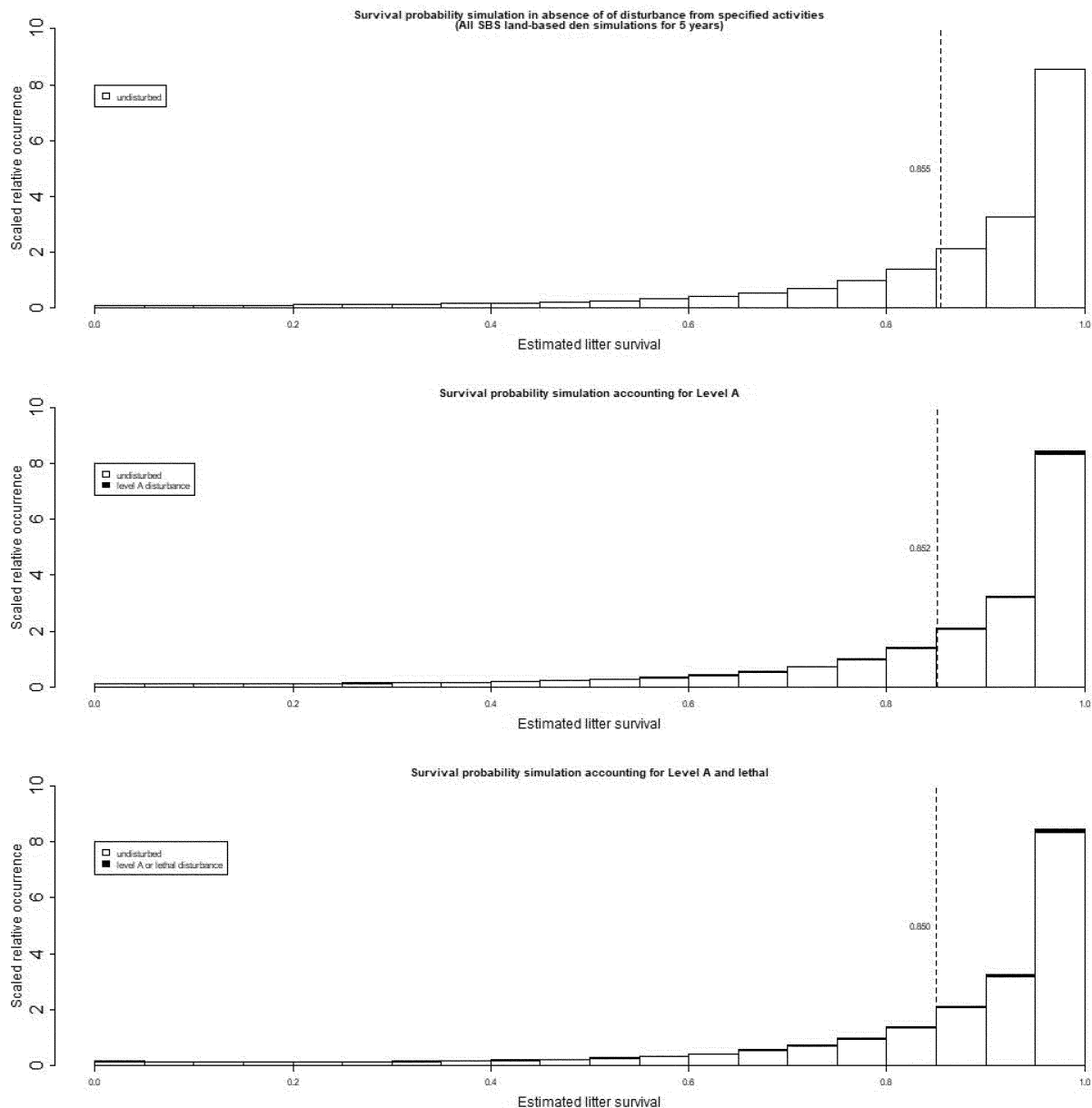


Figure 3—Estimated litter survival probability distributions and mean survival rates for the land-based SBS polar bear stock during the total 5-year period of the ITRs. The x axes of these graphs depict the simulated probability that one or more cubs from a litter will be alive in the spring, and the y axes of these graphs depict the relative occurrence of the survival probabilities in our simulations.

(Top plot: Survival probabilities simulated with no disturbance from Industry with mean survival rate. Middle plot: Survival probabilities simulated after considering potential decrease in survival rate due to estimated Level A take Bottom plot: Survival probabilities simulated after considering potential decrease in survival rate attributable to estimated Level A take and lethal take (not anticipated))

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8. Lethal take via den abandonment is rare within the SBS polar bear stock. Records of den abandonment in the oilfield are rare—the FWS has only one

account of potential den abandonment within the 13 case studies used to develop early denning period disturbance rates. Applying the denning

model, the greatest annual simulated probability of lethal take throughout the ITR period is 0.12. The aggregated probability of potential lethal take over

a 5-year period is 0.43. The median number of lethal takes in both the annual and 5-year aggregated modeling outputs was zero. These results, coupled with the lack of observed den abandonment, supports our finding that lethal take due to sow abandonment of the den and litter during the early denning period is unlikely.

9. We do not anticipate that loss of a cub or litter will adversely affect annual recruitment rates at the stock level. Under the ITRs, anticipated incidental Level A harassment only involves cubs during the denning period. Impacts to denning females, the demographic group most important to annual recruitment, would only involve take by Level B harassment. Therefore, the immediate number of potentially available reproductive females that would contribute to recruitment for the SBS polar bear stock would remain unaffected if a den disturbance were to result in the mortality of the cubs. If a den disturbance were to result in the mortality of the entire litter, the female would be available to breed during the next mating season and could produce another litter during the next denning season.

Cubs inherently cannot contribute to annual rates of recruitment until they have reached sexual maturity because in wildlife biology the concept of recruitment speaks to individuals entering the reproductive population. Further, while adult male bears would contribute to the overall number of individuals in the population, they do not contribute significantly to annual rates of recruitment. While a very small decrease in the number of males in a breeding population may be a concern if the stock was at risk of inbreeding depression or Allee effects (e.g., decrease in population size or individual fitness in response to low population density), this is not the case in the SBS polar bear stock. Female cubs have the opportunity to reach sexual maturity and contribute to annual recruitment; however, natural rates of survival fluctuate in the SBS polar bear stock. Death of one female cub less than once per year is within the natural variability found within the SBS polar bear stock and cannot be reasonably expected to cause an adverse impact on annual rates of recruitment.

Based on the low percentage of SBS stock polar bears potentially being removed from the stock even if den disturbance were to result in the mortality of the cubs, and the expectation that the number of potentially available reproductive females that would contribute to recruitment would be unaffected by den

disturbance, the FWS does not anticipate that the loss of a cub or litter would adversely affect annual recruitment rates at the population level for the SBS stock of polar bears.

We reviewed the effects of Industry activities on polar bears, including impacts from surface interactions, aircraft overflights, marine vessel traffic, and den disturbance. Based on our review of these potential impacts, past monitoring reports, and the biology and natural history of polar bears, we conclude that any incidental take reasonably likely to occur as a result of specified activities would be limited to short-term behavioral disturbances and temporary reductions in fitness that would not affect the annual rates of recruitment or survival for the SBS stock of polar bears.

The FWS has analyzed the potential impact of the proposed taking in light of other factors affecting SBS polar bears, including but not limited to subsistence harvest and other human-caused removals, as well as other ongoing and authorized oil and gas activities (which, like the specified activities considered in this ITR, are anticipated to affect SBS polar bears via limited short-term behavioral disturbances and temporary reductions in fitness). As we gain a better understanding of these and other effects, we will incorporate the information in future authorizations. While a variety of ongoing factors pose challenges to SBS polar bears, we do not expect them to influence the degree of impacts (i.e., short-term behavioral responses and temporary reductions in fitness) resulting from the specified activities or incidental harassment to be authorized over the next 5 years under the ITRs.

Our analysis indicates that the impacts of these specified activities over 5 years cannot be reasonably expected to, and are not reasonably likely to, adversely affect the SBS stock of polar bears through effects on annual rates of recruitment or survival. Similarly, the estimated impacts described in AOGA's Request, which are lower than those of the FWS predictive model, cannot be reasonably expected to, and are not reasonably likely to, adversely affect the SBS stock of polar bears through effects on annual rates of recruitment or survival. We find that the total of the taking will have no more than a negligible impact on the SBS stock of polar bears.

When examining the potential impact of 20 takes by Level B harassment of Pacific walrus at the stock level, we consider the nature of the potential harassment, which is expected to be limited to temporary disturbance of

behavioral patterns that will not impact the recruitment or survival of the effected individuals. The potential effects of greatest concern to walrus are associated with human-induced stampedes at walrus coastal haulout sites. Hauled out walrus tend to be in close physical contact, with groups ranging from a few animals up to tens of thousands of individuals—the largest aggregations occurring at land haulouts (Gilbert 1999, Monson et al. 2013, USFWS 2017). Intra-specific trauma at coastal haulouts is a known source of injury and mortality (Garlich-Miller et al. 2011). The risk of stampede-related injuries increases with the number of animals hauled out and with the duration spent on coastal haulouts. Calves and young are the most vulnerable to suffer injuries and/or mortality (USFWS 2017). There has never been a reported large coastal haulout site located in the South Beaufort Sea, nor is there any reason to suspect a large coastal haulout may occur in the near future given the extremely low density and transient nature of walrus in the region. Therefore, the FWS does not anticipate that the conjectural or speculative impacts associated with these specified activities warrant a finding of non-negligible impact or otherwise preclude promulgation of these ITRs.

Impact on Subsistence Use

Based on information from past community consultations, as well as our analysis of hunting area locations, which did not identify any overlap between hunting areas and the specified activities—and the best scientific information available—including monitoring data from similar activities, we find that take caused by the specified activities in the specified geographic region will not have an unmitigable adverse impact on the availability of polar bears or walrus for taking for Alaska Native subsistence uses during the specified timeframe.

While SBS polar bears and walrus represent a small portion, in terms of the number of animals, of the total subsistence harvest for the Utqiagvik, Nuiqsut, and Kaktovik communities, their harvest is important to Alaska Natives. However, the majority of project activities are within an established industrial area where harvest is not conducted. Walrus harvest from Nuiqsut and Kaktovik is opportunistic, and none of the walrus harvests for Utqiagvik, Nuiqsut, or Kaktovik from 2014 through 2024 have occurred within the area of specified activities. The FWS has not received any reports and is not aware of

information that indicates that polar bears or walruses are being or will be deterred from hunting areas or impacted in any way that diminishes their availability for Alaska Native subsistence use by the specified activities. In their Request, AOGA has committed to notify the Village of Kaktovik and Village of Nuiqsut of the planned activities and document any discussions of potential conflict. LOA holders would contact Alaska Native subsistence communities that may be affected by their activities to discuss potential conflicts caused by location, timing, and methods of the specified activities. They would also make reasonable efforts to ensure that activities do not interfere with subsistence hunting and that adverse effects on the availability of polar bears and walruses are minimized. The FWS is not aware of any concerns having been voiced by the Alaska Native communities regarding the specified activities limiting availability of polar bears and walruses for subsistence uses. However, should such a concern be voiced, POCs would identify measures to minimize any adverse effects and these measures will be implemented. POCs would further ensure that the specified activities will not have an unmitigable adverse impact on the availability of the species or stock for Alaska Native subsistence uses. POCs provide the procedures addressing how LOA holders will work with the affected Alaska Native communities and what actions will be taken to avoid interference with subsistence hunting of polar bears or walruses, as warranted.

Least Practicable Adverse Impact

These ITRs must set forth, among other things, means of effecting the least practicable adverse impact on the species or stock and its habitat. We evaluated the practicability and effectiveness of mitigation measures based on the nature, scope, and timing of the specified activities; and the best available scientific information, including monitoring data during Industry activities in the specified geographic region. The FWS did not identify any additional (*i.e.*, not already included in the Request), practicable mitigation measures to decrease the potential impact of the specified activities on walruses or their habitat, but we determined one additional mitigation measure noted below would decrease the potential impact of the specified activities on polar bears.

The additional mitigation measure is a larger 1.6 km (1 mi) mitigation zone surrounding polar bear sows and their cub(s) at den sites. Under this measure,

LOA holders would consult with the FWS on any activities that need to occur within 1.6 km (1 mi) of a den location. The FWS would work cooperatively with LOA holders to identify mitigation measures, such as decreased and slowed traffic, personnel education, and increased monitoring, to decrease the potential impact of activities in the mitigation zone on polar bears.

We find that the mitigation measures already included within AOGA's Request will ensure the least practicable adverse impact on walruses and their habitat, and that the mitigation measures already included within AOGA's Request and the additional mitigation measure described above will ensure the least practicable adverse impact on polar bears and their habitat.

A number of mitigation measures were considered but determined to be not practicable. These measures are listed below:

- *Require a third AIR survey of polar bear denning habitat within 1.6 km (1 mi) of onshore winter activities in the high-density denning zone*—The FWS recognizes the important role that AIR surveys play in mitigating adverse impacts to polar bear. Per the Request, surveyed locations that yield heat signatures that indicate the possible presence of a maternal polar bear den will be re-surveyed, which could involve follow-up surveys via AIR, handheld or vehicle-mounted infrared cameras or binoculars, or the use of UAS in coordination with FWS. FWS anticipates that the added value of a third AIR survey will be less than that of the initial two surveys, as FWS anticipates fewer previously unidentified dens to be identified. While there are meaningful differences between the circumstances where three AIR surveys required and conducted in the 2021–2026 ITR and the three AIR surveys proposed as an additional mitigation measure in the proposed ITR, no additional dens were detected by the third AIR surveys conducted under the 2021–2026 ITR. With additional AIR surveys, the corresponding burden on operators increases, particularly with the specific time restrictions on all three AIR surveys in the proposed ITR. The undue logistical, human safety and economic burden is driven by a number of factors, including the availability of aircraft, specialized equipment, pilots, and personnel to monitor the equipment, and the requirement to conduct the additional AIR survey in a short time period in a harsh operational environment with weather constraints. The requester has explained that a single AIR survey involves a crew of three to four people flying in a small

aircraft at night (or periods of little or no daylight), flying approximately 400 miles or more over the course of 4–5 hours in remote areas of the Arctic. The surveys occur during times of the year when temperatures can reach –55 degrees Fahrenheit below zero. These temperatures and nighttime operations raise human safety considerations, which include the potential that a search and rescue effort for a downed aircraft and personnel would place the safety of the personnel conducting those operations at risk.

The requester has further explained that conducting AIR surveys on-schedule can be very difficult because of the harsh Arctic weather and the logistical challenges associated with carrying out activities in the Arctic. Planned surveys can be delayed for days and often can only be conducted during short windows of opportunity. That can be challenging enough for a single survey, or even two surveys, but it can be particularly constraining for three surveys. Surveys also require significant advance planning, including the transport of crews from Anchorage, Fairbanks, and the contiguous U.S. to the Arctic, the hiring and scheduling of a double crew of pilots and maintenance personnel, rental of short-term hanger space, deployment of specialized resources and equipment from out-of-state, and on-the-ground provisions in the Arctic. Additionally, the requester provided an example from one of its members that the third survey requirement caused the cancellation of freight and operations flights to prioritize completion of these surveys. In light of all of these considerations, the FWS concludes that a general third AIR survey is not practicable.

- *Require use of helicopters for AIR surveys*—Use of helicopters to survey active polar bear dens might lead to greater levels of disturbance and take compared to fixed-wing aircraft. This statement is supported by greater harassment rates for helicopter overflights compared to fixed-wing overflights determined in the aircraft take estimate analysis. Additionally, there is no published data to indicate increased den detection efficacy of helicopter AIR.

- *Require optimal weather conditions for AIR surveys*—Appropriate weather conditions for AIR surveys are incorporated into the Request and an FWS-required mitigation measure. Additional restrictions would not be practicable for the specified activities due to the available timeframe to complete AIR surveys.

- *Ground all flights if they must fly below 457 m (1,500 ft)*—Requiring all

aircraft to maintain an altitude of 457 m (1,500 ft) at all times is not practicable as some operations may require flying below that level to perform necessary inspections or maintain safety of flight crew. Aircraft are required to fly above 457 m (1,500 ft) at all times within 805 m (0.5 mi) of an observed polar bear or walrus unless there is an emergency.

- *Require speed restrictions for all aircraft operations*—Requiring all aircraft to operate below a specific speed limit is not practicable as some operations may require speeds above the specified speed limit to maintain safety of the flight crew during various weather conditions. Additionally, aircraft operating at lower speeds may increase the duration of impact and potentially result in greater levels of disturbance to polar bears or walruses.

- *Spatial and temporal restrictions on surface activity*—Some spatial and temporal restrictions of operations were included in AOGA's Request; however, additional restrictions would not be practicable for the specified activities based on other regulatory and safety requirements, and the need to meet project objectives such as acquiring sufficient data.

- *Operational exclusion zone around all known polar bear denning habitat*—A 1.6-km (1-mi) operational exclusion zone around all known polar bear denning habitat is not practicable as much of AOGA's specified survey area occurs within 1.6 km (1 mi) of denning habitat; thus, to exclude all areas within 1.6 km (1 mi) of denning habitat would preclude many project activities from occurring.

- *Prohibit driving over high relief areas, embankments, or stream and river crossings*—In their Request AOGA has committed to avoid operating in potential den locations. This includes providing crews GPS displays that highlight areas precluded from surface travel, training crews to recognize denning habitat and signs of animal activity, and scouting ahead with smaller/lighter equipment to evaluate travel routes before larger equipment arrives. Most travel will avoid embankments and steep slopes that polar bears utilize for denning, but scouting activity helps to further identify areas to avoid. To completely avoid these types of areas would likely cause personnel to drive further away from established operational areas and unnecessarily create additional safety concerns. Furthermore, other mitigation measures to minimize impact on denning habitats are included and will minimize the risk imposed by driving over high relief areas, embankments, or stream and river crossings. Lastly, the

probability of a den being run over by equipment during the specified activities is exceedingly low each year of the ITRs, and this probability will be further mitigated by AIR surveys at the beginning of the specified activities to detect dens within 1.6 km (1 mi) of the activities.

- *Use of a broader definition of "denning habitat" for operational offsets*—No data are available to support broadening the defining features of denning habitat beyond that established by the U.S. Geological Survey.

- *Prohibit activities within designated critical habitat for polar bears*—Critical habitat for polar bears must be considered during the specified activities; however, complete prohibition is not practicable due to the large spatial extent of critical habitat and project objectives.

- *Establish corridors for female and cub transit to the sea ice*—As no data support the existence of natural transit corridors to the sea ice, establishment of corridors in the ITR region would be highly speculative. Therefore, no mitigative benefit would be realized by their establishment.

- *Require third-party neutral marine mammal observers*—AOGA has committed to conducting polar bear training that meets FWS standards and will use bear guards to monitor for polar bears during project activities. These bear guards will be fully incentivized to diligently monitor for polar bears given inherent safety considerations.

- *Require all activities to immediately cease if a polar bear or walrus is injured or killed until an investigation is completed*—The FWS has incorporated into the ITRs reporting requirements for all polar bear and walrus interactions. While immediately ceasing all activities may aid in any subsequent investigation, doing so may not be practicable or safe in certain circumstances and, thus, will not be mandated.

- *Require use of den detection dogs*—Requiring scent-trained dogs to detect polar bear dens across the broader ITR region is not practicable or safe due to the large spatial extent that would need to be surveyed. Such a wide-scale survey may also require additional transit vehicles and accommodations, which could increase disturbance to polar bears. However, in their Request, AOGA considered use of scent-trained dogs as a mitigation action when hotspots are identified, stating that their best use is one-time verification at a specific site (rather than routine monitoring or surveying large areas). This site-specific use, which is different

than potential wide-spread surveys, may be used as deemed appropriate.

- *Construct safety gates, fences, and enclosures to prevent polar bears from accessing facilities*—Constructing safety gates, fences, and enclosures to prevent polar bears from accessing all facilities is not practicable due to the short-term and relatively mobile project activities and temporary facilities.

- *Require the use of handheld or vehicle-mounted forward-looking infrared equipment*—The efficacy rates for AIR surveys have been found to be four times more likely to detect polar bear dens versus ground-based forward-looking infrared (handheld or vehicle-mounted) due to impacts of blowing snow on detection. AOGA has previously incorporated into their mitigation measures the use of handheld or vehicle-mounted forward-looking infrared when transiting rivers occurring in suitable denning habitat, but it is not practicable to use the equipment during all transit.

- *Temporal restrictions after July 18*—While AOGA has committed to prioritizing cleanup in coastal areas first to complete them prior to July 18, the overall timing of cleanup activities is dependent upon snow-free conditions, which vary yearly and may not occur before July 18.

Monitoring and Reporting

The purpose of monitoring requirements is to assess the effects of the specified activities on polar bears and walruses, verify compliance with the ITRs and LOAs, detect any unanticipated effects on the species or stock, and ensure take will not have more than a negligible impact on species or stocks. Monitoring includes documenting when and how polar bears and walruses are observed, the number of polar bears or walruses, and their behavior during the observation. To the extent possible, personnel that encounter polar bears or walruses will record group size, age, sex, behavior, duration of observation, and closest approach to human activity. The AOGA would report all observations of polar bears or walruses. This information allows the FWS to measure encounter rates, examine trends in polar bear and walrus activity and distribution in the industrial areas, and estimate the number of polar bears or walruses potentially affected by industrial activities.

The FWS would provide AOGA with the most recent and up-to-date Polar Bear and/or Walrus Observation Form in which to record observations of polar bears or walruses. Observations must be reported to the FWS's Marine Mammals

Management Office within 48 hours of the observation and submitted to fw7_mmm_reports@fws.gov. Details on monitoring guidelines and reporting requirements can be read below in the regulation promulgation portion of this document in § 18.127 Monitoring and § 18.128 Reporting requirements.

Summary of and Response to Comments and Recommendations

Response to Comments

The FWS published a proposed ITR in the **Federal Register** on March 9, 2026, with a 30-day period seeking comments on both the proposed ITR and draft EA (91 FR 11240). The comment period closed on April 8, 2026. The FWS received 85,589 comments. Comments were received from the requester, the State of Alaska, the North Slope Borough, various advocacy organizations, student groups, a corporation, and interested members of the public. Submissions with multiple signatures were counted as multiple comments (one comment per individual signing).

The majority of comments (77,468) were part of mass mailing campaigns, where members of public added information and signatures to letters led by environmental organizations expressing opposition to the promulgation of the regulations. Outside of these mass campaigns, an additional 8,104 comments were submitted individually. Many of these submissions were identical or highly similar variations of nine different comment letters all expressing opposition to the regulations. A small number of comments were submitted to this docket by mistake, either as duplicate entries or as comments intended for a different docket. Nearly all individually submitted comments expressed opposition to the regulations.

We reviewed all comments, which are part of the docket for these ITRs, for substantive issues, new information, and recommendations regarding these ITRs and EA. The FWS used “DocketScope” to aggregate comments submitted by the public. The comments are aggregated by subject matter, summarized and addressed below, and changes have been incorporated into the final ITRs and final EA as appropriate. A summary of the changes to these final ITRs from the proposed ITR is found in the preamble section, entitled Summary of Changes from the Proposed Regulations.

Comment (1): Many commenters responded to FWS’s statement in the proposed ITR that “[t]he FWS is now considering whether the best reading of

the MMPA’s provisions concerning ITRs requires the FWS to allow (1) all types of incidental take that result from the specified activities; (2) only the types of incidental take that FWS anticipated during the rulemaking process; or (3) only the types of incidental take that were requested to be allowed.”

Commenters offered different views on how FWS should proceed in this regard.

Our Response: After considering the various interpretations and perspectives provided via public comments, FWS finds that approach (1) as described in this comment and in the proposed ITR reflects the best reading of the MMPA. Where FWS receives an adequate and complete request for an ITR, satisfies applicable procedural requirements and makes findings that the incidental taking from the specified activities will comply with applicable MMPA standards (*i.e.*, small numbers, negligible impact, and no unmitigable adverse impacts on the availability of the species or stock for taking for subsistence uses), FWS will issue an ITR allowing for all types of incidental take that result from the specified activities (to the extent they are conducted in compliance with ITR and LOA requirements).

This interpretation flows from section 101(a)(5)(A) which provides that in the circumstances described above, the Secretary “shall allow . . . the incidental, but not intentional, taking by citizens while engaging in [a specified activity within a specified geographical region. . . .]” This statutory directive to allow “the incidental . . . taking” is non-discretionary (*i.e.*, the Secretary “shall” allow it) and is not limited or caveated by any language concerning the types or numbers of incidental taking to be allowed.

Additional support for this interpretation is provided in comment responses below. Since the proposed regulatory text provided in the proposed ITR reflected the interpretation described above, no related changes to that regulatory text are made in this final ITR.

Comment (2): One comment agreed that this interpretation reflects the best reading of the MMPA, noting that the exemption from the MMPA’s general take prohibition afforded by section 101(a)(5)(A) focuses on “citizens . . . who engage in a specified activity . . . within a specified geographical region,” and then exempts “the incidental, but not intentional taking by citizens while engaging in that activity within that region.” The comment also notes case law recognizing that there is nothing in section 101(a)(5)(A) that requires FWS, when promulgating ITRs, to quantify or

estimate the number of animals that would be taken.

Our Response: FWS agrees with this interpretation of section 101(a)(5)(A). FWS also recognizes that the absence of a requirement to quantify or estimate the number of animals that would be taken when promulgating ITRs further undercuts the notion that ITRs may only allow that incidental take which was quantified or estimated. FWS relatedly notes that the statutory provision establishing the required contents of ITRs expressly requires FWS to set forth, *inter alia*, “permissible methods of taking pursuant to such activity” but says nothing of permissible types or numbers of taking pursuant to such activity (16 U.S.C. 1371(a)(5)(A)(i)(II)).

Comment (3): Some comments asserted that because FWS cannot authorize incidental take unless FWS finds the total taking will comply with certain MMPA standards, it necessarily follows that FWS cannot authorize any additional take beyond what it anticipated in making its MMPA findings.

Our Response: The FWS agrees that it cannot authorize incidental take under section 101(a)(5)(A) unless it first makes certain MMPA findings. However, FWS disagrees with the comments’ ensuing conclusion, in part because it conflates the separate statutory standards governing (1) when ITRs may (or more precisely, must) be issued and (2) what an ITR (if issued) must allow.

When reviewing requests for ITRs, FWS makes MMPA findings that are inherently predictive in that they concern anticipated or expected takings from all future activities anticipated or expected to be conducted under the ITR (*i.e.*, the total taking). Where FWS makes the requisite MMPA findings, it must issue an ITR. The ITR must then “allow . . . the incidental, but not intentional, taking by citizens engaging in that activity within that region. . . .” (section 101(a)(5)(A)(i)). The statutory language establishing the scope of incidental taking to be allowed in ITRs does not mention predictive take estimates.

FWS recognizes that estimates of impacts from future activities rarely align perfectly with the actual impacts from those activities once conducted. It is always possible that FWS may overestimate or underestimate impacts resulting from the specified activities whenever it reviews ITR requests and makes its MMPA findings. The comments here seem to argue for a mechanism to ensure that the scope of allowable incidental take does not exceed the scope of previously estimated incidental take. However, the

text of section 101(a)(5)(A) does not accommodate such a mechanism and Congress has already described in a separate provision what FWS must do if the specified activities cause unforeseen impacts.

Section 101(a)(5)(B) of the MMPA establishes the circumstances under which the permission to incidentally take marine mammals under subparagraph (A) must be withdrawn or suspended, either on an individual or class basis. One of these circumstances is where “the taking allowed under [the ITR] pursuant . . . is having, or may have, more than a negligible impact on the species or stock concerned” (16 U.S.C. 1371(a)(5)(B)(ii)). This fail-safe provision demonstrates Congress’ awareness that the Secretary’s predictive MMPA findings under subparagraph (A) might not account for the full extent of actual impacts from the specified activities, due to unforeseen circumstances or other reasons. The fact that a fail-safe provision that provides FWS a recourse in the event of unforeseen impacts is already built into section 101(a)(5)(B) further argues against reading an additional, unspoken precautionary mandate into the text of section 101(a)(5)(A).

The commenters’ interpretation of what MMPA incidental take can be authorized pursuant to an ITR also results in misalignment between MMPA and Endangered Species Act (ESA; 16 U.S.C. 1531–1544) provisions concerning incidental take of ESA-listed marine mammals. Under the ESA’s section 7 consultation provisions, where a biological opinion concludes that incidental take will result from the proposed action but would not violate the substantive standards of section 7(a)(2), the biological opinion must provide an incidental take statement (ITS) (16 U.S.C. 1536(b)(4); see also 50 CFR 402.14(i)). The ITS must specify, *inter alia*, reasonable and prudent measures to minimize the impact of the taking and set forth terms and conditions that the action agency or any applicant must comply with to implement those reasonable and prudent measures. Congress made clear that any taking “that is in compliance with the terms and conditions specified in [the ITS] shall not be considered to be a prohibited taking of the species concerned” (16 U.S.C. 1536(o)(2)). Nothing in the ESA or its implementing regulations allows (much less requires) the consulting agency to limit the scope of this exemption to correspond to the types or numbers of incidental takings that it anticipated in its biological opinion. The exemption plainly applies

to all incidental taking that is in compliance with the terms and conditions of the ITS. This is important here because a further requirement applies where the consultation involves ESA-listed marine mammals, *i.e.*, incidental take of marine mammals cannot be exempted under the ESA unless the taking is authorized pursuant to section 101(a)(5) of the MMPA (see 16 U.S.C. 1536(b)(4)(C)). Limiting the scope of an MMPA authorization in the manner suggested by commenters serves to preclude full implementation of the ESA’s incidental take exemption provision. Under the commenters’ interpretation, a citizen could be issued an MMPA section 101(a)(5) authorization, fully comply with the mitigation, monitoring, and reporting requirements of that authorization, fully comply with the terms and conditions of an ITS, and yet remain liable for certain incidental take under both the MMPA and ESA. This result does not square with the plain meaning of section 101(a)(5) of the MMPA or section 7(o)(2) of the ESA.

The commenters’ interpretation also results in misalignment between the MMPA and a key ESA provision specific to polar bears. FWS’s ESA section 4(d) rule for polar bears serves to generally prohibit take of polar bears but makes a key exception: “None of the prohibitions in § 17.31 of this part apply to any activity that is authorized or exempted under the [MMPA]. . . . provided that the person carrying out the activity has complied with all the terms and conditions that apply to that activity under the provisions of the MMPA. . . . and [its] implementing regulations” (50 CFR 17.40(q)(2) and 73 FR 28306, May 15, 2008). Like the MMPA’s ITR provisions, this 4(d) rule provision applies to categories of “activities” as opposed to the types or numbers of take anticipated by FWS in its predictive analyses of such activities. Here again, limiting the extent of allowable MMPA take in the manner suggested by the commenters serves to preclude full implementation of an ESA provision. In this case, declining to implement an “activity”-based approach when allowing incidental take under section 101(a)(5) undercuts FWS’s intent in promulgating the polar bear 4(d) Rule. See FWS’s ESA section 4(d) rule for polar bears which states (“This special rule under section 4(d) of the ESA aligns ESA incidental take provisions for polar bears with incidental take provisions of the MMPA and its implementing regulations” (73 FR 28306 at 28310, May 15, 2008).

There are also some important policy and enforcement considerations at play

here. FWS’s interpretation promotes fairness and regulatory certainty in that LOA recipients who conduct their specified activities in compliance with all ITR and LOA requirements (including the mitigation measures that ensure the least practicable adverse impact on marine mammals) remain insulated from legal liability where FWS’s predictive estimates prove inaccurate. Also, in FWS’s prior experience, where the extent of allowable incidental take is limited to correspond to FWS’s predictive estimates, it can be very difficult for FWS to adequately support enforcement actions concerning any “extra” and thus unauthorized incidental takes. This is largely because incidental take can be difficult to detect. The March 9, 2026, proposed ITR touched on this issue in the context of polar bears when it explained that “ambient conditions common to the ITR area (*e.g.*, darkness, snow, fog, and wind) can reduce the ability to observe polar bears (and impacts, if any) in the vicinity of industrial activities”, and certain types of potential impacts “would likely manifest after [the polar bears have] departed from the observable area . . .” (91 FR 11240 at 11252). Incomplete information concerning the extent of an LOA recipient’s prior incidental taking makes it difficult for FWS to sufficiently establish that one or more “extra” and thus unauthorized incidental takings have occurred. The notion (which seems implicit in these comments) that FWS could reliably identify and enforce against all “extra” and thus unauthorized takings is undercut by these practical realities.

Comment (4): Several comments stated that issuing an ITR that allows all incidental take resulting from the specified activities is inconsistent with the conservation-based purposes of the MMPA.

Response: The FWS disagrees. Whether an incidental taking is authorized pursuant to an ITR, or remains prohibited under the MMPA’s general take prohibition, is immaterial to the extent of any associated impact to the marine mammal itself. The only change concerns the legal liability of the person or entity that commits the take. Meanwhile, FWS does not believe that allowing all incidental taking resulting from specified activities conducted in accordance with ITR and LOA requirements incentivizes or otherwise results in more frequent or more severe taking. ITR and LOA requirements already ensure the least practicable adverse impact on the species or stock and its habitat, and any incidental taking that results from activities that

are not conducted in full compliance with ITR and LOA requirements remain prohibited and subject to enforcement.

Comment (5): Several comments expressed confusion stemming from the proposed ITR's inclusion of the word "Nonlethal" in the proposed title of a new Subpart J, despite other text indicating that all forms of incidental take could be allowed.

Response: FWS regrets any confusion; this word appears to have been accidentally carried over as an artifact from a prior iteration of the Beaufort Sea ITR. While no lethal take is expected to result from the specified activities, the proposed regulatory provisions did contemplate allowing all forms of incidental take that could result from the specified activities, and FWS received many comments on that aspect of the proposed ITR. The referenced use of "Nonlethal" is omitted from this final rule.

Comment (6): One comment suggested that allowing for all incidental take that results from the specified activities (not just the take that was anticipated when developing the ITR) is incompatible with FWS's implementing regulations which require analysis of the "total taking."

Our Response: FWS disagrees. The comment quotes from the preamble to the 1989 final rule (54 FR 40338, September 29, 1989) that established FWS's implementing regulations. The referenced language calls for FWS to estimate the "total takings expected" from all the activities expected to be covered by the ITR. FWS has done so in its analysis here.

The comment then suggests that this preamble language, which concerns what is to be estimated during the rulemaking process, dictates that scope of incidental take that an ITR (if issued) can allow. There is no support for that conclusion in the preamble much less in the regulatory provisions themselves. FWS's implementing regulations address the required contents of ITRs at 50 CFR 18.27(e)(1). This provision (which essentially repeats the statutory provisions of section 101(a)(5)(A)(i)(II)) requires ITRs to set forth permissible methods of taking pursuant to the relevant activities but does not require ITRs to set forth permissible types or numbers of taking pursuant to those activities. The ensuing provision at 50 CFR 18.27(e)(1)(2) then provides that ". . . [a]s new information is developed, through monitoring, reporting, or research, the regulations may be modified, in whole or in part. . . .". Implicit here is the recognition that if monitoring and reporting data indicates that unexpected

degrees of take are occurring from the specified activities, FWS can reassess the ITR and, if appropriate, take corrective action.

The referenced preamble is instructive as to what the phrase "total taking" means in the ITR context. Relevant portions of the preamble explain:

Before the Service may allow a taking of marine mammals under the authority of section 101(a)(5) of the MMPA, it must find that the total taking expected from the specified activity will have a negligible impact on that species or stock. . . . In determining impact, the Service must evaluate the "total taking" expected from the specified activity in a specific geographic area. The estimate of total taking involves the accumulation of impacts from all anticipated activities that are expected to be covered by the specific regulations. In other words, the applicant's anticipated taking from its own activities is only one part of the story; the total takings expected from all persons conducting the activities to be covered by the regulations must be determined. (54 FR 40338 at 40340 and 40342, September 29, 1989).

In other words, "total taking" simply clarifies the scope of activities (*i.e.*, all those "anticipated" or "expected" to be covered by the ITR) and potential taking (*i.e.*, the "anticipated" or "expected" taking from those activities) to be considered when rendering predictive MMPA findings (*e.g.*, "negligible impact"). It does not circumscribe the scope of incidental take that ITRs (if issued, after the requisite MMPA findings are made) must allow.

Comment (7): Several commenters stated the FWS must elaborate on the three potential interpretations of the MMPA presented in the proposed ITR, stating what they find to be the best reading of the MMPA. They state FWS appears to have given more weight to option 1, wherein all incidental take associated with the specified activities would be authorized. One commenter stated that should the FWS decide to use one of the other two options, it should publish a revised proposed ITR with an additional opportunity for public comment.

Our Response: The proposed ITR specifically alerted the public to this interpretive question and specifically requested public comment concerning the most appropriate resolution. FWS received and considered numerous public comments offering different perspectives on this issue. FWS then determined that the regulatory text of the proposed ITR already reflected the best reading of the statute. That text remains unchanged in the final rule, and there was no need to publish a revised proposed ITR.

Comment (8): The requester stated the final rule should clarify the LOA process and FWS should issue LOAs for activities within the scope and type of activities described in the Request without detailed data requirements or new model runs.

Our Response: Section 18.123 describes FWS's process for reviewing LOA requests. This process entails determining "whether the level of activity identified in the request exceeds that analyzed by [FWS] in considering the number of animals estimated to be taken and evaluating whether there will be a negligible impact on the species or stock and an unmitigable adverse impact on the availability of the species or stock for subsistence uses." All specific projects and activities described in the Request and reflected in the requester's supporting materials are inherently within the "level of activity. . . considered by [FWS]. . . ." in issuing this rule. FWS will thus grant LOA requests for such projects and activities without performing further, duplicative impact analysis. However, FWS will also consider LOA requests pertaining to other projects and activities so long as they would be conducted by an eligible entity within the specified geographical region and are of same classes and types of activities considered in this Rule. These projects or activities were not considered by FWS in issuing this rule, and additional analysis would be required to determine if the level of activity associated with the LOA request would exceed the level of activity already analyzed by FWS. In making this determination, FWS would consider the scope of activities described in the LOA request under review in combination with the scope of any contemporaneous activities covered by existing LOAs issued pursuant to this rule. The appropriate method for conducting such analyses may vary depending on the specific factual circumstances presented, and FWS will not require detailed data requirements such as activity footprint "shapefiles" and associated occupancy rates and remains committed to making decisions on LOA requests expeditiously. Clarifying language has been added to 50 CFR 18.123.

Comment (9): The requester noted that there is language in the preamble that suggests LOA requests will be evaluated against the total taking allowable under the ITRs and asserts that this is inconsistent with a proposed regulatory provision and FWS's stated approach to authorize "all types of incidental take that result from the specified activities." The requester

stated the FWS should revise the preamble text and clarify that this Rule does not set a “total taking allowable” number.

Our Response: The referenced preamble text and the FWS implementing regulation it refers to (50 CFR 18.27(f)(2)) concern the standard that FWS applies when deciding whether to issue a requested LOA. FWS’s stated approach of authorizing “all types of incidental take that result from the specified activities” pertains to a different topic, *i.e.*, the extent of incidental take that would be allowable under the LOA, if issued. The LOA review process described by § 18.123 of this Rule squares the regulatory phrase “total taking allowable” as it appears in 50 CFR 18.27(f)(2) with the best reading of the statute by ensuring that the scope of activities and estimated impacts associated with approved LOA requests will not exceed what was considered in this Rule.

Comment (10): The requester stated the FWS should clarify the potential length of LOAs issued under the proposed ITR, specifically highlighting the FWS should allow multi-year LOAs.

Our Response: The FWS will process and may approve LOA requests for periods of up to 5 years under this Rule.

Comment (11): The requester suggested a revision in the preamble text that describes specified activities to include “. . . some projects not explicitly described may occur during the ITR period. All activities will be of the same classes and types of activity described in the Request as required by the MMPA.”

Our Response: The FWS will process and may approve LOA requests pertaining to projects not explicitly described in the Request or preamble text, so long as the project activities described therein would be conducted by an eligible entity within the specified geographical region and are of same classes and types of activities considered in this Rule. In lieu of modifying the “Description of . . . Specified Activities” section as between the proposed and final rules, the FWS has retained the original preamble text, which adequately accommodates LOA requests of this nature.

Comment (12): One commenter stated FWS cannot defer identification and analysis of specified activities to the LOA stage, as this would call into question the determination that based on the best available scientific evidence, the total taking from the specified activities included in the request are not reasonably expected to, and are not reasonably likely to, adversely affect the species or stock through effects on

annual rates of recruitment or survival. They argued that the lack of opportunity for public review of proposed LOAs demonstrates that no significant new information or analysis was contemplated to occur at the LOA stage.

Our Response: The FWS has not proposed a mechanism wherein MMPA findings are deferred to the LOA stage. This rule fully considers the specified activities described in the Request and makes the requisite MMPA findings. FWS and reviewing courts have long recognized that specified activities may be described broadly at the ITR stage. As we have explained above, FWS’s subsequent reviews at the LOA stage will ensure that sufficient project-specific information was considered at the ITR or LOA stage before an LOA is granted, and that levels of taking will be consistent with the findings made in this rule.

Comment (13): One commenter suggested all activities eligible for LOAs must be fully analyzed in the ITR to be consistent with the MMPA and its implementing regulations. The commenter recommends that the FWS rejects deferring identification or analysis of specified activities, take estimates, and impacts assessment to the Letter of Authorization (LOA) stage.

Our Response: This rule fully analyzes the potential impact of the specified activities described in the Request. FWS’s analysis considered the descriptions of activities provided in the Request as well as the requester’s supporting materials, which included spatial files reflective of certain ongoing and planned activities. The requester has stated some projects not explicitly described may occur during the ITR period, and all additional activities will be of the same classes and types of activity described in the Request. Should an entity request an LOA for projects not previously analyzed, the FWS would evaluate the request in the manner described in section 18.123 of this rule.

In a broader sense, the commenter seems to question FWS’s use of a two-step approach (*i.e.*, ITRs and then LOAs) to authorizing incidental take pursuant to section 101(a)(5)(A) of the MMPA. FWS has implemented regulations utilizing this approach for decades and it has proven successful in authorizing incidental take where warranted, imposing mitigation measures that effect the least practicable adverse impact on marine mammals, and ensuring that impacts to marine mammal species and stocks remain negligible.

Comment (14): Commenters stated that the proposed ITR is not clear on what entities will be eligible for LOAs,

as it states that AOGA requested eligibility for LOAs be conditioned on active AOGA membership but also states that AOGA requested regulations be applicable to AOGA members and a non-member company that have applied for the regulations.

Our Response: The entities listed referenced in § 18.122(b) of this final rule, as well as their corporate affiliates, respective contractors, subcontractors, partners, owners, co-lessees, designees, or successors-in-interest will be eligible to apply for LOAs.

Comment (15): Some commenters noted that in the requester’s petition, AOGA requested that eligibility under the proposed ITR be conditioned upon active AOGA membership. The proposed ITR extends eligibility slightly, but still restricts it to AOGA members, 8 Star Alaska, LLC, and their respective corporate affiliates and contractors, subcontractors, partners, etc. The commenter then urges the FWS to remove all eligibility requirements related to requiring membership in AOGA or other industry groups.

Our Response: The entities listed referenced in § 18.122(b) of this final rule, as well as their corporate affiliates, respective contractors, subcontractors, partners, owners, co-lessees, designees, or successors-in-interest will be eligible to apply for LOAs. If a party seeks an incidental take authorization for an activity not included in the specified activities, they can apply for a separate take authorization.

Comment (16): Several comments focused on who may apply for an LOA. One commenter stated that the FWS providing more flexibility in which companies are eligible for LOAs would support conservation and compliance objectives such as reducing the likelihood that Industry activities would proceed without incidental take coverage due to eligibility barriers, ensure all operators are subject to consistent mitigation, monitoring, and reporting requirements, and more flexible eligibility requirements would not pose any risks to the MMPA goals or the FWS’s authority to process LOAs. One commenter stated that the FWS restricting LOA eligibility to entities based on their membership with the requester raises administrative and legal concerns such as unequal treatment of operators conducting similar activities in the same geographic region, potential exclusion of entities that are willing to comply with ITR requirements but elect not to join a private association for independent business or governance reasons or who lack a qualifying relationship to an eligible member entity, and unclear implications about

continuity of authorization, transferability, and enforcement if membership with the requester changes during the ITR period. They further state that the FWS's ability to ensure effective mitigation and monitoring requirements relies on clearly enforceable regulatory conditions and not whether an entity has a membership with the third-party organization. Finally, a commenter stated that the FWS restricting LOA eligibility to entities that have membership or a qualifying relationship with the requester conflicts with the MMPA statute of authorizing incidental take by specified activities within a defined geographic region, subject to findings regarding small numbers, negligible impact, and mitigation.

Our Response: The entities listed referenced in § 18.122(b) of this final rule, as well as their corporate affiliates, respective contractors, subcontractors, partners, owners, co-lessees, designees, or successors-in-interest will be eligible to apply for LOAs. As is reflected in the rule, FWS will not require confirmation of membership in AOGA prior to LOA issuance. If a party seeks an incidental take authorization for an activity not included in the specified activities, they can apply for a separate take authorization.

Comment (17): One commenter stated that, as noted in the proposed ITR's small numbers discussion, the population survey data used to calculate the minimum population estimate (Nmin) for the SBS stock of polar bears is over 10 years old. They recommended the FWS address if and how the age of the survey data impacts their confidence in their calculation of potential biological removal (PBR) as 14 bears.

Our Response: We acknowledge that having a more recent population estimate would be ideal; unfortunately these data are difficult to obtain. The FWS is currently working with the U.S. Geological Survey (USGS) and partners to develop an updated population estimate for the SBS stock. The FWS is confident that its calculation of PBR as 14 bears in the SBS SAR represents the best available scientific evidence at this time. Best available science also indicates the population decline that was noted in the mid-2000s appears to have stabilized (Bromaghin et al. 2021).

Comment (18): One commenter stated FWS should reassess its small numbers and negligible impact determinations using the minimum population estimate from the stock assessment reports (Nmin). They state Nmin is more appropriate for FWS to use the minimum population estimate (Nmin) for SBS polar bears in its small numbers

determination rather than a population point estimate because the Nmin value provides reasonable assurance that the stock size is equal to or greater than that estimate.

Our Response: The MMPA does not require FWS to use Nmin when calculating small numbers. While Nmin is a valuable conservation metric, we find the population estimate to be the most appropriate denominator when calculating the percentage of the stock that is estimated to be subjected to incidental take as a result of specified activities.

Comment (19): One commenter recommended the FWS commission updated population surveys before finalizing the rule because the most recent population data is nearly a decade old.

Our Response: The FWS strives to obtain updated abundance estimates for polar bear stocks under its jurisdiction every 10 years. There has been an ongoing effort in the past year to use more recent data to update the stock's abundance estimate. The FWS anticipates these results to be available by the end of 2026. However, the estimate the FWS uses for the current ITR represents the best available scientific evidence available at this time.

Comment (20): One commenter recommended the FWS require meaningful, independently verified population recovery benchmarks before any authorization is issued.

Our Response: The FWS declines to implement this recommendation as the best available scientific information indicates the population decline of the SBS Stock in the mid-2000s has appeared to stabilize (Bromaghin et al. 2021). Separate from this rulemaking, the FWS, with a wide variety of partners from non-governmental conservation organizations to oil and gas industry representations, created and published the polar bear conservation management plan which presents certain benchmarks for polar bears.

Comment (21): Commenters argued that any additional industrial activity or harassment of polar bears in the Southern Beaufort Sea stock would be unacceptably harmful since the population is facing conservation pressure from declines in sea ice, which force polar bears to spend more time on shore. Commenters cited declines in foraging opportunities, body condition, cub survival, and overall numbers of Southern Beaufort Sea polar bears, sometimes highlighting specific population estimates (e.g., estimates from the 1970s, 1990s, a 2021 stock assessment report, and a 2025 draft

stock assessment report) or a period of low cub survival (2004–2007). Highly similar comments submitted by many individuals stated that peer-reviewed research has shown that the polar bear population in Alaska is likely lower than it has been at any point since the passage of the MMPA in 1972, and that further declines can be expected in the future if protections are not strengthened. Commenters stated that strengthened protections, including minimizing disturbance and protecting critical habitat, are needed to support recovery and prevent further population declines, given the vulnerability of the population. Some commenters similarly argued that the Pacific walrus population is already vulnerable due to sea ice declines and stronger protection is needed, as any additional industrial disturbance—especially noise, vessel traffic, and habitat disruption—exacerbates existing pressures.

Our Response: The FWS has carefully assessed anticipated impacts of the specified activities on the Southern Beaufort Sea stock of polar bears and the Pacific walrus population in light their current statuses and the baseline of existing impacts and concluded that incidental take associated with specified activities will have no more than a negligible impact on these populations. Our analytical methods account for the increased industrial footprint and for changing space use patterns (e.g., more polar bear denning on shore and summer land use) associated with sea ice declines. The ITR includes mitigation and monitoring requirements that will limit potential disturbances and impacts to habitat. Commenters are correct that the SBS stock has declined since the MMPA was passed. Currently, however, existing evidence suggests the subpopulation's decline has stabilized and survival rates are much higher than during the early 2000s (Bromaghin et al. 2021). Some commenters incorrectly suggested that the lower population estimate included in the 2025 SBS draft stock assessment report indicated a biological decline in the population since the publication of the 2021 stock assessment report, but that is not the case as the updated population estimate was lower due to a change in the boundary that defines the SBS stock (movement of the eastern boundary of the SBS stock in Canada to the west).

Comment (22): Some commenters stated that the relatively late age of sexual maturity, slow reproductive rates, and heavy investment in each reproductive event for polar bears and walrus make populations vulnerable to impacts from oil and gas activities. Regarding polar bears, commenters

stated that any additional cub mortality resulting from den disturbance could harm recruitment and population trends due to polar bears' slow reproductive cycles, low numbers of dens, and low cub survival rates. One commenter stated that in light of the slow reproduction in polar bear and walrus life histories, the FWS should explain with much greater rigor how additional disturbance to denning, feeding, or maternal care can still be considered negligible.

Our Response: The FWS considered the relatively late age of sexual maturity, slow reproductive rates, and heavy investment in each reproductive event, population dynamics, among other relevant considerations, of SBS polar bears and walruses when analyzing potential impacts and developing its MMPA findings. The FWS does not anticipate lethal take of polar bears or Pacific walruses as a result of the specified activities. The SBS polar bear stock exhibits marked natural interannual variation in cub survival rates (Bromaghin et al. 2021) which are much higher than the anticipated effect of potential disturbance. Even with this variation, the most recent and best available science has supported that the population has stabilized (Bromaghin et al. 2021). Impacts to Pacific walrus are estimated to be limited to temporary behavioral disturbances of a very small portion of the population that may be encountered outside their typical home range.

Comment (23): One commenter states that the FWS must ensure that take authorized under individual LOAs already issued does not exceed the extent of take FWS anticipates or authorizes in the proposed ITR.

Our Response: LOAs already issued will not carry over into this ITR period. The FWS will evaluate new requests for LOAs under the provisions of this ITR.

Comment (24): Commenters stated that climate change and increases in human presence and activity are reducing habitat available to polar bears and walruses, leading to increases in encounters that are potentially dangerous.

Our Response: We account for the increased industrial footprint and changing space use patterns (e.g., more denning on shore, more summer land use) in our analytical methods, as described in the **SUPPLEMENTAL INFORMATION**.

Comment (25): Comments stated that walrus populations are vulnerable to negative impacts from the rule due to their increased use of large coastal haulouts in association with reductions in sea ice. They stated that walruses at

haulouts, particularly calves, face risks of disturbance-related mortality from stampedes and trampling triggered by aircraft noise, industrial activity, or human presence, in addition to risks of harmful behavioral disturbance.

Our Response: We agree that large coastal haulouts can be particularly vulnerable, however walrus are extralimital (i.e., outside their range) in the ITR area and are only encountered in small numbers. There are no known walrus haulouts in the ITR area. However, should haulouts occur, LOA holders must maintain a mitigative offset in vessels or in aircraft.

Comment (26): One commenter stated that at a time when scientists warn of further declines and potential local extinctions in some polar bear subpopulations, Federal policy must prioritize habitat protection and disturbance minimization, not industrial convenience.

Our Response: Consistent with MMPA requirements, the final rule sets forth, among other things, means of effecting the least practicable adverse impact on SBS polar bears, walruses, and their habitat.

Comment (27): Several commenters recommended FWS conduct a more robust cumulative impact analysis accounting for prior, ongoing, and proposed authorizations, stating that considering individual authorizations in isolation obscures long term effects and is inconsistent with the MMPA. One commenter stated the FWS must analyze the consequences of multiple disturbances from all identified human activities with the potential to cause incidental take on individual polar bears and the SBS stock overall. One commenter stated the FWS must fully analyze the impacts of past take in considering how future annual, unknown levels of take authorized for the same population of bears pursuant to the proposed ITR will impact the SBS stock.

Our Response: FWS considered the impacts of the specified activities in light of the baseline of existing impacts, which includes impacts from ongoing, authorized activities.

Comment (28): One commenter stated that research shows extended ice-free fasting periods and decrease in sea ice extent are causing energetic stress to polar bears, and additional energetic costs from disturbance could therefore affect survival or reproduction.

Our Response: The FWS thoroughly discusses the potential effects of climate change on polar bears, including changes in sea ice extent, in the **SUPPLEMENTAL INFORMATION** to the proposed ITR. FWS considered this

information when conducting its analysis and reaching its MMPA findings. We acknowledge that changes in the sea ice may lead to longer swims between the ice edge and the shore. However, we do not anticipate human-polar bear interactions to increase in severity during the 5-year ITR period. We anticipate polar bear reactions to continue to be short-term, temporary disruptions of behavior.

Comment (29): Some commenters stated that because the steep decline in the SBS polar bear population between 2000 and 2010 was driven by low cub survival, maximizing cub survival by preventing den disturbance is critical. One commenter specifically stated that the FWS failed to address the best available scientific information showing cub survival rates' influence on population trajectory, citing a study that showed high influence of cub survival on SBS polar bear population trajectory from 2002–2005.

Our Response: Bromaghin et al. (2021) noted that after the decline, survival rates increased to much higher levels. Further, the SBS polar bear stock exhibits marked natural interannual variation in cub survival rates (Bromaghin et al. 2021) which are much higher than the anticipated effect of potential disturbance from the specified activities. Even with this variation, the most recent and best available science has supported that the population has stabilized (Bromaghin et al. 2021). The FWS has analyzed the possibility of cub mortality and the extent to which it would affect the SBS stock. Preventing den disturbance is indeed important and these ITRs require various mitigation measures to effect the least practicable adverse impact on denning polar bears.

Comment (30): A commenter stated that one reason the loss of one additional cub due to the specified activities is very significant to the long-term survival of the stock is the greater importance of land dens to the population given their greater likelihood of yielding cubs that survive and reproduce themselves. They stated the FWS failed to acknowledge the particular importance of land-denning bears.

Our Response: While it is true that Rode et al. (2018) have found support for a higher rate of denning success in land-based dens, the available science does not provide a basis for discounting the value of cubs born in sea ice dens. Rode et al. (2018) indicated the likely reason for increased litter survival of land-based dens was later average emergence dates. We incorporated this effect into our model as empirical data

from land-based dens were used to create denning parameters in our analysis.

Comment (31): One commenter stated that in the proposed ITR, the FWS is “glossing over a substantial probability of injury or death rather than reckoning with the impacts of such an injury or loss on the stock.”

Our Response: As the FWS has stated in our negligible impact determinations, we do not anticipate loss of a cub through den abandonment. Further, the litters that experience Level A take over a 5-year period are anticipated to have an average 12.6 percent decrease in survival probability. This change in survival probability is not anticipated to have more than a negligible impact on annual rates of recruitment for the SBS stock. The stock exhibits marked natural interannual variation in cub survival rates (Bromaghin et al. 2021) which are much higher than the anticipated effect of potential disturbance. Even with this variation, the most recent and best available science has supported that the population has stabilized (Bromaghin et al. 2021).

Comment (32): One commenter stated that FWS cannot assume the SBS population is stable because the most recent draft stock assessment shows a continued decline in population estimates.

Our Response: The commenter is incorrect. The draft stock assessment report for the SBS (citing Bromaghin et al. 2021) found evidence that the decline that occurred in the early 2000s had likely abated and that the population had appeared to stabilize. As noted in the stock assessment report, the lower number (819) reported is not the result of a decline in the population, but rather a boundary shift in Canada that reduced the overall footprint of the SBS and thus the number of bears considered to be part of the subpopulation.

Comment (33): Commenters stated that take considered in the rule does not meet the definition of incidental take, which is defined as takings which are infrequent, unavoidable or accidental. One commenter stated that when disruption is anticipated, modeled, and permitted in advance, it is not incidental in any meaningful sense, and another stated that “incidental” is not a standard the FWS can uphold or monitor.

Our Response: In accordance with the MMPA, this rule may only authorize incidental take. The fact that future incidental take can be predicted does not mean it is not infrequent, unavoidable, or accidental. FWS’s definition of “[i]ncidental, but not

intentional, taking” makes clear that such taking need not be “unexpected.” The FWS can and does make distinctions between take that is intentional (such as take that occurs when polar bears are intentionally deterred from an area to promote bear and human safety) and incidental take.

Comment (34): One commenter stated that the FWS does not explain what it is using for a threshold to characterize a probability as low, nor does it explain how the 45 percent likelihood of lethal take occurring within the 5-year period, which was estimated by the FWS predictive model for denning bears, compares to this threshold.

Our Response: The qualifier (“low”) does not involve any thresholds and was used generally to characterize FWS’s overall assessment of the likelihood of lethal take and was not necessary to support our assessment. In light of the probability from the FWS predictive model of one or more lethal takes occurring either annually (0.12) or in 5-year aggregate (0.43), along with a median value of 0 for either time period, we do not anticipate the specified activities will result in lethal take of polar bears.

Comment (35): The commenter believes that the FWS is not properly considering the MMPA’s definitions of take specifically with regard to the phrasing of “potential” threat of take. Therefore, the FWS is overlooking the potential for lethal take of cubs when characterizing impacts as Level A harassment.

Our Response: The FWS’s application of the term Level A harassment is appropriate. The MMPA defines “take” to include, among other things, “harass” and “kill.” The MMPA further defines two types of harassment (Level A and Level B) and specifically incorporated the concept of “potential” into those definitions. The MMPA does not define “kill.” The Service therefore applies the ordinary meaning of the word “kill,” which is to deprive of life or cause the death of, not to potentially deprive of life or cause the death of.

The limited numbers of Level A harassment contemplated by this rule are estimated to entail an average 12.8 percent marginal reduction in litter survival probability, which represents a possibility of death, but not a certainty or even likelihood of death. This is not an adequate basis for assuming lethal (i.e., “kill”) take. As previously noted, the existing dataset contains no definitive evidence that an Industry activity caused a maternal den abandonment that in turn resulted in cub mortality. We also note that such an assumption would be unworkable in the

enforcement context in terms of meeting the applicable burden of proof.

Comment (36): One commenter states that the FWS improperly deems impacts that may result in cub mortality as Level A harassment instead of lethal take. They specifically state the science shows impacts during late denning could result in cub death.

Our Response: The FWS’s application of the term Level A harassment is appropriate. The MMPA defines “take” to include, among other things, “harass” and “kill.” The MMPA further defines two types of harassment (Level A and Level B) and specifically incorporated the concept of “potential” into those definitions. The MMPA does not define “kill.” The Service therefore applies the ordinary meaning of the word “kill,” which is to deprive of life or cause the death of, not to potentially deprive of life or cause the death of.

The limited numbers of Level A harassment contemplated by this rule are estimated to entail an average 12.8 percent marginal reduction in litter survival probability, which represents a possibility of death, but not a certainty or even likelihood of death. This is not an adequate basis for assuming lethal (i.e., “kill”) take. We also note that such an assumption would be unworkable in the enforcement context in terms of meeting the applicable burden of proof.

Comment (37): One commenter stated the Request included estimates of potential take that used FWS methodology, that these estimates are different than those presented by FWS in the proposed ITR, and that FWS must explain and address this discrepancy.

Our Response: The estimates referenced by the commenter are not those presented by AOGA as their likely estimate of take. They were part of AOGA’s discussion of FWS predictive modeling methodology and appear to have used input values that are no longer used by FWS. There is no statutory or regulatory provision that requires any applicant to use any FWS predictive model.

Comment (38): One commenter stated that the FWS failed to consider some additional level of lethal and non-lethal take in the ITR that is likely to occur over the ITR period.

Our Response: The take estimates considered by the FWS for this ITR account for the potential of lethal and non-lethal take to occur due to the applicant’s proposed activities based on the best available scientific information. Assuming additional take beyond what was analyzed would be unduly speculative.

Comment (39): Commenters stated that previous Beaufort Sea ITRs (e.g.,

rules finalized in 2016 and 2021) did not permit Level A harassment and that permitting Level A harassment now is unwanted regulatory rollback.

Our Response: In consideration of the best available scientific information, the FWS has updated our approaches to estimating and authorizing Level A harassment since 2021. Level A harassment was authorized under the revised Beaufort Sea ITRs issued in 2025. We disagree that authorizing similar take under this ITR amounts to regulatory rollback, and is consistent with the requirements of the MMPA.

Comment (40): One commenter states that the FWS cannot lawfully issue an ITR or LOA that allows unintentional, incidental taking, including undefined amounts of unanticipated lethal take, when the ITR findings rely on the assertion that lethal take is not sufficiently likely to warrant consideration in the findings. The commenter further stated their belief that this approach violates the MMPA, is beyond the Service's authority, and is arbitrary and capricious.

Our Response: FWS specifically considered the potential for lethal take in its analysis and associated findings, including the negligible impact finding. A conclusion, based on detailed analysis that a potential consequence is not anticipated to occur should not be mistaken for a conclusion the issue does not warrant analysis.

Comment (41): The requester has stated that the FWS statement that the 43 Level B harassment events reported by two operators in calendar year 2025 are a standard deviation above the annual Level B take requested is a mischaracterization because the request did not seek take authorization on a certain number of takes/year basis.

Our Response: We have included some clarifying language to more accurately reflect the take authorization request and note that the purpose of the statement at issue was to illustrate inter-annual variability in polar bear use of the ITR area, not to characterize how take was estimated or requested.

Comment (42): The requester stated that FWS's modeling is unreliable and model results should not be used to support the rule. The requester further suggested that FWS disavow the notion that an ITR request could be disapproved based on modeled take estimates.

Our Response: The FWS's model-derived take estimates, like requester's take estimates, support issuance of the requested ITR. It is beyond the scope of this rulemaking to delineate the potential basis for disapproving a request for an ITR.

Comment (43): The requester states that any discussion of the FWS predictive estimates in the final rule should clarify (1) the results and associated determinations are not likely to occur, (2) they are not intended to be used as a regulatory measure, and (3) they are not necessary to support the final rule.

Our Response: The FWS has made a number of revisions that help provide context concerning the nature of FWS's methodologies and appropriate consideration of resulting take estimates.

Comment (44): One commenter states that the weight of evidence approach employed by the requester and summarized in the proposed ITR is a farce because the most heavily weighted line of evidence is from AOGA's own field observations and LOA database. The commenter further claims that the FWS is leaving industry to police themselves.

Our Response: AOGA is required by the MMPA to submit estimates of likely take in their Request. The FWS clearly explained their rationale for considering both sets of estimates in the proposed ITR (91 FR 11240 at 11251, March 9, 2026).

Comment (45): One commenter stated the FWS acknowledges what appears to be skepticism regarding the estimates presented in the request and does not go on to explain its rationale for relying on the estimates in the Request.

Our Response: It is unclear what part of the proposed ITR suggests skepticism to the commenter. It was not our intent to express skepticism of a particular analytical approach to estimating take. We clearly explain our rationale for considering both sets of estimates in the Rule.

Comment (46): One commenter stated that before finalizing the proposed ITR, the FWS should provide clearer quantitative estimates of anticipated take levels.

Our Response: The FWS provided all the quantitative estimates of anticipated take levels as part of the proposed ITR and also published all of the code and model output that these results were derived from.

Comment (47): One commenter urged the FWS to adopt the take estimates produced by its own predictive model rather than AOGA's "weight of evidence" methodology.

Our Response: We considered both estimates along with qualitative factors in our analysis regarding the required MMPA determinations.

Comment (48): One commenter stated FWS should complete a retrospective analysis of polar bear observations and

takes reported by Industry operators over several decades to more accurately predict future incidental take through an objective, transparent, scientifically rigorous, and uniformly applicable process.

Our Response: The FWS has considered predictive estimates of take from both the requester and FWS predictive model estimates which both incorporate a retrospective analysis of polar bear observations by Industry operators over several decades. The FWS considers the observational data a key component of the best available scientific information. As such, we continue to analyze observations alongside additional scientific information to inform and refine its predictive model estimates, as is explained in the proposed ITR and associated supplemental information.

Comment (49): One commenter stated that the ITR request relies on past opportunistic observations to predict future take without providing details on how past activities compare to potential future projects, some of which are not yet identified. They stated that to justify using past take levels as a predictor of future take, the requester would need to show that exposure levels are likely comparable between them by documenting intensity, methods, locations, and timing of past and proposed activities, and these data are not provided in the proposed ITR or in the ITR request.

Our Response: We considered both the estimates provided in the Request and our own independent predictive take analysis that resulted in the best available scientific evidence which included, but was not limited to, the past records of polar bear observations discussed in the request. The FWS considered additional information, such as the geospatial files referenced by AOGA in their request.

Comment (50): One commenter states that while the FWS should explore and assess different approaches to estimating potential take, the FWS has an obligation to determine which method and associated take estimate is based on best available scientific information and present that to the public.

Our Response: The MMPA requires the FWS to utilize best available scientific evidence when developing MMPA findings; however, nothing in the MMPA requires the FWS to quantify take estimates or identify a single, best methodology for estimating take or making MMPA findings. For instance, prior iterations of the Beaufort Sea ITR have made determinations based on both qualitative and quantitative factors.

Here, the FWS considered both sets of take estimates along with qualitative factors in making its MMPA findings.

Comment (51): One commenter stated that the proposed ITR and EA are unclear in how the FWS, when making required determinations, applied take estimates generated by its quantitative predictive methods or applied take estimates provided in the ITR request. The commenter stated it is implied the FWS relied on the requester's incidental take estimates to make determinations, which is problematic because there is evidence these values are underestimates.

Our Response: Each set of take estimates supported FWS's preliminary MMPA findings in the proposed ITR, and support FWS's findings in the final rule.

Comment (52): One commenter suggests the proposed ITR is vague, does not give enough guidelines or estimates of what may occur, and focuses on the applicant's own methodology.

Our Response: We disagree. We considered both the estimates provided in the Request and its own independent predictive take estimates alongside a number of qualitative factors, incorporating the best available scientific evidence. The preamble contains a summary of both sets of quantitative estimates with the details of each methodology available in the requester's petition and the FWS Supplemental Information.

Comment (53): One commenter claims the proposed ITR is an example of regulatory capture, suggesting a linkage between fossil fuel lobbying and the current administration. The commenter recommends that all industry communications related to the proposed ITR be disclosed and all lobbyist-written language be excluded from the final rule.

Our Response: During the ITR process, the FWS must review and speak to the Request we have received. We must also invite, consider, and respond to public comments, and in this process we must be open to receiving comments from all members of the public, regardless of status. As such, we may be required to present and respond to comments from lobbyists. When information from the requester or other external parties is included in FWS documents, we clearly attribute the source.

Comment (54): The requester states the FWS should explain why the result of their analysis to understand the frequency of incidental take preceding intentional take is different than those in their own request.

Our Response: The comment references an analysis that FWS conducted prior to and separate from its consideration of the Request at issue in this rulemaking. The decision rules and overall conclusions of that referenced analysis were explained in the Supplemental Materials provided in the docket associated with the proposed ITR. Meanwhile, the Request reports its own conclusions concerning this issue. Rather than focus on differences between the take estimates provided in the Request versus those produced via FWS's predictive modeling, this rulemaking considers both sets of estimates when rendering MMPA findings.

Comment (55): The requester suggests the denning model does not accurately reflect real-world conditions or animal reaction to oil and gas activities.

Our Response: The FWS uses the best available science which is largely collected from polar bears in the SBS stock thus they are representative of bears in the region. As previously explained, the FWS considers qualitative and quantitative considerations and data, the Request's estimates of likely incidental take, and FWS predictive model results as the "best available scientific evidence" used to support the determinations in this ITR. The FWS has been explicit about their analytical assumptions and why any assumptions are needed.

Comment (56): The requester and one commenter provided several criticisms of the FWS predictive model for estimating potential take of denning polar bears. They stated the model was inaccurate, seriously flawed, and resulted in intentional overestimates of take that far exceed historical data. They state the model has not been validated, and its use in MMPA authorizations does not meet the standard set by E.O. 14303, "Restoring Gold Standard Science" because it undermines required agency transparency due to the use of assumptions and disregard of available data due to uncertainty. They also state that use of the model will unnecessarily constrain industry by decreasing oil and gas activities and adding costs and mitigation measures. Finally, they conclude estimates generated using the model should not be used in the FWS's negligible impact determinations.

Our Response: We acknowledge the criticisms of our modeling methodologies and results from various stakeholders and appreciate that all predictive analyses and models have limitations. We further recognize that our predictive models contribute to annual take estimates that have

exceeded (and are expected to exceed) the number of events where biological consequences indicative of take are observed to result from Industry activities. One reason is that the predictive models are based on annual activities forecast for 5 years of Industry activity in advance, and the annual activities, and thus the corresponding take, has historically been of a smaller scope than that analyzed. Additionally, the predictive models are one way to account for any unobserved take and account for certain acts which have "the potential to" result in certain biological consequences. Accounting for unobserved take and "the potential for" certain consequences involve a level of scientific uncertainty. When addressing uncertainties, the models incorporate assumptions that attempt to strike a balance between potential overestimates and potential underestimates, but, overall, are more likely to contribute to an overestimate, rather than an underestimate, of the incidental take of polar bears.

The FWS recognizes the continuing uncertainty about the scope of unobserved take and "the potential to" result in certain biological consequences, because these components, definitionally, do not avail themselves of an opportunity to evaluate the estimates against observations. Therefore, in evaluating the Request, we have avoided giving our predictive models, and quantification of take in general, undue weight in evaluating the Request. More specifically, we considered two separate predictive methodologies and resulting sets of take estimates, as well as qualitative factors, when making our small numbers and negligible impact determinations. The FWS thus did not rely solely on any single source of numerical estimates.

The FWS recognizes the importance of transparency required by E.O. 14303, "Restoring Gold Standard Science" and has sought to provide transparency in reporting assumptions of its predictive modeling, as well as providing all of the model code, input, and rationale provides transparency. In any scientific endeavor, control rules must be established to direct the inclusion of data, so incomplete information does not bias the results. We have explained our control rules to clearly communicate why certain data may not be incorporated into our analyses. Using different control rules will lead to differing data included in estimates using the same model.

The FWS does not agree that consideration of its predictive model results unnecessarily constrains oil and

gas activities through increased costs and mitigation measures. Any restrictions or mitigation measures imposed by ITRs stem from implementation of the MMPAs requirement that an ITR sets forth the means of effecting the least practicable adverse impact on the stock. This requirement applies to all ITRs, regardless of the extent of take estimated or how take was estimated (or whether take was quantitatively estimated at all). In implementing this requirement, we do not require mitigation measures that are so restrictive as to make specified activities unduly burdensome or impossible to undertake. Requesters are afforded an opportunity to comment on these issues when FWS-proposed mitigation measures are identified in proposed ITR.

As noted in the preamble, in light of the inherent uncertainties and challenges with quantifying take and the disparate results produced through different methodologies, the FWS considers its predictive model estimates alongside the requester's predictive estimates, which it derived from a distinct methodology, and various qualitative factors.

Comment (57): The requester urged FWS to provide a more "complete and balanced discussion" of the methods presented in the Request in the final rule.

Our Response: The FWS has updated the preamble of this rule to provide a more thorough summary of the requester's methods and take estimates alongside FWS's predictive modeling methods and results.

Comment (58): Commenters stated that greater numbers of SBS polar bears are projected to spend more time on shore in the vicinity of oil and gas activities in the future (and cited a proportion of the SBS stock estimates to spend prolonged period onshore by the year 2040), meaning current mitigation measures may not be sufficient and take numbers may be underestimated in the proposed ITR.

Our Response: The FWS disagrees that the mitigation measures are not sufficient and disagrees that the predicted take numbers are underestimated. The take estimates considered adequately account for the anticipated number of polar bears expected to utilize onshore areas within the 5-year ITR period that will expire in 2031. We continue to use and consider the best available scientific information.

Comment (59): Several commenters stated the FWS appears to have conducted its predictive modeling analysis and subsequent small numbers and negligible impact determinations

using speculative spatio-temporal data, data from similar projects, or with a general lack of specificity.

Our Response: FWS requested and AOGA supplied a geodatabase that was used to conduct our predictive modeling estimates. The geodatabase included location, occupancy rate, and start/end dates for future proposed activities. We supplied the public with our analyses, which included these files, incorporated in an R environment datafile, in the docket of the proposed ITR.

Comment (60): One commenter stated that FWS estimates concerning Level A harassment indicate a 95 percent probability that oil and gas activities on the North Slope could be lethal to polar bears over a 5-year period.

Our Response: FWS's predictive take estimate indicates the greatest annual simulated probability of lethal take throughout the ITR period is 0.12, and the aggregated probability of potential lethal take over a 5-year period is 0.43. The median number of lethal takes in both the annual and 5-year aggregated modeling outputs was zero. Our predictive take estimates do estimate a high probability of one or more Level A harassments occurring, and that Level A harassment of cubs in the late denning and post-emergence period entail some (albeit limited) possibility of survival consequences to affected cubs. The extent to which these potential impacts could affect the SBS stock was considered in the proposed ITR and is considered in the final rule. We also considered AOGA's estimates for the aggregated probability of lethal take throughout the 5-year period of 0.000 and of Level A take of 0.103.

Comment (61): One commenter states that the proposed ITR only considers to possibility of Level A harassment or lethal take occurring to cubs and arbitrarily fails to consider the possibility of Level A harassment or lethal take occurring of an adult female polar bear while denning.

Our Response: The FWS has detailed the information it relies on to inform Level A harassment and lethal take. The scientific literature is clear that the impacts to dens are restricted to the cubs because the early emergence/ departure relate to cub fitness and ability to keep up with their mother and survive outside the den. The mother does not have these same constraints and would only experience a short-term behavioral reaction as a result of such disturbance. The only instances where the impact could be as severe as to cause lethal take, or even Level A harassment to a mother would be if a den was run over by equipment and the

female crushed. However, we have already shown that the probability of this happening is so low (≤ 0.005) that it is discountable.

Comment (62): One commenter suggests that the FWS's denning analysis asserts that only 16 percent of dens disturbed during the late denning and post-emergence periods would result in cub death.

Our Response: The commenter is incorrectly interpreting our analytical approach. The value of 16 percent does not reflect the percent of dens that would experience cub death. The 16 percent value reported reflects the average reduction in litter survival that is attributable to simulated disturbance from industrial activities.

Comment (63): One commenter stated that FWS does not explain how best available science supports its conclusion that the probability of a den being run over by equipment during the specified activities is exceedingly low each year of the proposed ITR, nor does it define "exceedingly low" or address the probability across the total 5-year ITR period. They also noted that no analysis of the likelihood of traffic, ice road construction, or other specified activities encountering a polar bear den is presented.

Our Response: The FWS has considered the probability of a den being run over by industrial activity. First, it would be restricted to seismic surveys or the creation of an ice road or a tundra travel route. Second, those areas would receive at least one AIR survey to detect some of the dens prior to using those areas. Even when placing tightly-spaced seismic arrays over the entire 1002 area of the ANWR (where some of the highest density denning areas for the SBS are located, but located outside the geographic scope of this ITR) it resulted in a very low probability of running over a den (≤ 0.005). This estimate fails to consider that typically oil operators would not develop a road/route/seismic line over a steep slope that would be challenging to get a vehicle down, which is where the bulk of polar bear den habitat is located (*i.e.*, steep slopes). So, we have considered the risk to polar bears of being run over while in the den and found the probability to be so low that it was extremely unlikely to occur.

Comment (64): Commenters stated that the FWS was flawed in not further considering the mean number of predicted lethal takes over the 5-year ITR period and instead applying the median, which does not capture the fact that when lethal den disturbance does occur, it would usually result in lethal take of multiple cubs. They stated that

by ignoring the mean value and the biological reasons for the skew in predicted totals of lethal take in reaching its conclusions, FWS is downplaying the extent of potential take from AOGA's activities.

Our Response: We have underlying den parameters that, in general, have more probability towards the center of their distribution but also have positive, albeit very small, probability in more extreme values. When performing a simulation, the goal is to look at the entire space of all the combinations of these distributions to look at the breadth and variability of possible outcomes. Possible does not mean probable. There will be occasions where the values chosen for that particular iteration will represent extreme values for multiple parameters, very far from the central values we expect for parameters. These occasions will still produce a result, but they will sometimes be a combination that makes a value that is much more extreme. While these values are technically possible, they occur relatively rarely and are wildly divergent from most of the other results. Such extreme, yet improbable, values are what skew the resulting distribution of outcomes, leading to a mean value that is less representative of the central tendency than the median.

Comment (65): One commenter argues that the FWS underestimates lethal take in its predictive denning model because dens that exhibit a behavioral response leading to early emergence prior to February 27 should be considered lethal take. They base this argument on Andersen et al. 2024, where the authors only estimated survival rates based on dens where emergence occurred on or later than February 27 based on the conclusion that no viable cubs would be present at an emergence date prior to February 27.

Our Response: Part of the reason Andersen et al. justified excluding dens prior to February 27 was to avoid including non-maternal dens (*i.e.*, shelter dens) where cubs were not born. This is an important factor to consider in this type of analysis. Unlike empirical data from collared bears where it is unknown when cubs were born, or how many are present at the time of emergence, our analytical model is able to assign simulated birth dates (based on existing science). Thus, for simulated dens, we know which dens contained cubs and when the cubs were >60 days old. Additionally, our approach does not consider the presence of non-maternal dens, so it makes sense that we would rely on an analysis that purposefully attempted to exclude those. Further, it is an incorrect

assumption that bears observed without cubs later in the spring that emerged prior to February 27 meant they emerged without cubs. While that is one possibility, another is that the bear emerged with cub(s) but lost them prior to being later observed in spring.

Comment (66): Two commenters stated that the FWS's den disturbance model is flawed or arbitrary and capricious because the way it handles emergence or departure dates creates a second opportunity for there to be no response to disturbance. One commenter specified that even after application of the probabilities in table 8 of the Request (p. 41 (supplemental information)), indicates that a Level A harassment occurs (resulting in assignment of a new "disturbed" emergence and/or departure date for the den), the model arbitrarily creates a second opportunity for there to be no response to the disturbance by allowing the new "disturbed" emergence and/or departure date to be the same as, or very close to, the original "undisturbed" date. They stated the FWS does not provide any explanation for creating this second opportunity in the model for there to be no response to the disturbance, nor does the FWS explain how this squares with its rationale that whether exposure to disturbance results in Level A take from early emergence and/or departure or not is determined based on probabilities calculated in its case studies analysis.

Our Response: We disagree. In our approach, if a Level A harassment occurs, dens are not given another opportunity for no response to occur. Once a den is simulated to have a take by Level A harassment occur, nothing in our modeling approach allows that to be taken away. We believe the commenter is confused by our inclusion of two sets of post-emergence disturbance probabilities. Significant thought, based on polar bear ecology, went into informing this portion of the model. The reason there are two post-emergence probabilities is because if a den is not disturbed until after the bears emerge from the den, based on our case studies, bears tend to show higher levels of disturbance outside the den than if they had been disturbed leading to an early emergence. Part of this is related to mitigation measures being imposed to limit disturbance once a den is discovered. The other post-emergence set of probabilities is for the case where a den was disturbed leading to an early emergence. Again, these probabilities were derived from the case studies and showed lower probabilities of disturbance during the late denning period. Because we do not have very

precise information on when anthropogenic disturbance might occur, we simulate the new, disturbed, emergence/time-at-den values, and then calculate the updated litter survival rate from those. It's true that those new "disturbed" emergence/time-at-den values could be very close to when they were "naturally" meant to be. However, this would occur with the same probability as a den being disturbed much earlier than its "undisturbed" values. This is because we utilize a uniform distribution to simulate the updated phenology values.

Comment (67): One commenter explained from their reading of the FWS's analyses, that about 61 percent of dens in the Colville-Canning region are on barrier islands, or 15.25, leaving 9.75 other land-based dens annually in the Colville-Canning region. Those, plus the 12 estimated for the National Petroleum Reserve—Alaska (NPR), indicate at least 21.75 expected dens occur in the ITR area annually. The reduction of that number to just 6.5 dens expected to be within a mile of industry activities is unexplained. The commenter noted that it is unclear to them how the FWS calculated 6.5 dens within the ITR area and requested that the FWS better explain how the 6.5 dens was calculated.

Our Response: The reduction to 6.5 dens expected to be within a mile of Industry activities was accomplished by examining the spatio-temporal files provided to FWS by AOGA upon our request. These files were used to complete our predictive modeling estimates as described in the proposed ITR and supplemental information at <https://www.regulations.gov> under Docket No. FWS-R7-ES-2026-0694.

Comment (68): One commenter states that the FWS does not properly explain how it estimated the number of dens to be located within a mile of industry activities, when the FWS does not know when and where various activities would take place. Additionally, the commenter suggests it was an error by the FWS to remove certain dens from the analysis.

Our Response: The FWS provided the code and model inputs for public comment. In the model documentation (R workspace), the spatial layers that the FWS used are provided.

Comment (69): One commenter notes that in its analysis of denning impacts the FWS defines the post-emergence period as "the date of den emergence until permanent departure from the den site." The commenter further suggests that defining the post-emergence period in this manner does not account for the time spent by the mother and cubs after

they depart the den site and move toward the coast and sea ice.

Our Response: The commenter is correct that the FWS den disturbance model does not account for things that happen to the family group after they permanently depart the den site. That is because the information we use to inform impacts to denning bears is related to events that occur at the den site. However, we do account for these impacts in the surface analysis. The LOA database captures observations of sows and cubs of the year as they head to the sea ice, and therefore the surface analysis predictive estimates sufficiently address their potential harassment.

Comment (70): One commenter notes that the FWS's predictive models account for MMPA's harassment definitions, which encompass certain acts which have "the potential to" result in certain biological consequences, and to account for any unobserved take. However, the commenter disagrees with how the FWS takes these into account and suggests that the FWS's assessment of activities should be based on best available science and must avoid speculation.

Our Response: The FWS's analytical approaches do use the best available scientific evidence when assessing the nature of certain acts and the potential consequences of those acts to marine mammals.

Comment (71): Several commenters expressed preference for take estimation methods based on "observed data" and stated the FWS predictive estimates are not based on observed data.

Our Response: We use observational data, as well as other data sources, in our predictive modeling. The use of predictive modeling does not abandon observed data, rather it incorporates it into a broader estimate that also includes other empirical biological data.

Comment (72): The requester states the FWS should adopt the analyses presented in the Request, which they claim are better suited than those produced by FWS.

Our Response: We have chosen to retain their predictive model estimates in the ITR alongside the estimates presented in the Request.

Comment (73): The requester states the MMPA does not require applicants to prove harassment didn't occur, yet the burden has shifted in the proposed ITR.

Our Response: The required components of requests for ITRs are specified in the implementing regulations at 50 CFR 18.27(d). Here, we deemed AOGA's request adequate and complete.

Comment (74): One commenter states that in the FWS's denning impacts analysis, a disturbance during the late denning period can only cause assignment of a new "disturbed" emergence date, but cannot result in an early departure unless disturbance also occurs again between the time of the new "disturbed" emergence date and the original departure date, in which case only 0.30 of such dens will then have a new departure date assigned in response to the second disturbance. The commenter then states that disturbance during the late denning period can result not only in premature emergence, but in premature emergence and departure, even absent additional disturbance following the emergence. The commenter attributes this assertion to best-available science. However, no information sources or data are provided to indicate where this conclusion is drawn from or why it should be considered best available science. The commenter further states that the FWS does not explain why a den must be disturbed at least twice before a disturbance during the late denning period results in premature departure.

Our Response: We are not aware of any science that indicates that departure from the den will be shortened even in the absence of a disturbance stimuli after emergence (*i.e.*, during the post-emergence period). We have been clear that for disturbance to be categorized in our analysis of case studies, a source of disturbance within 1 mile must be present.

Comment (75): One commenter states the FWS use of 60 days as the threshold at which polar bear cubs would not die if they were exposed to the environment outside the den is arbitrary, because the source study that discusses this threshold references cubs walking at 60–70 days of age. They state using a 60-day cutoff results in arbitrarily underestimating the probability and extent of lethal take.

Our Response: The FWS disagrees with this assessment. While it is true that Kenney and Bickel (2005) note that bears were generally walking by 60 days old, this is not the only information we use to support our position that cubs can be viable outside of the den once they reach 60 days of age. Harington (1968) provides evidence that cubs begin to sleep away from their mothers in the day at about 60 days of age, indicating their thermoregulatory abilities have improved. This is further confirmed by Blix and Lentfer (1979) that showed thermoregulatory ability of cubs to ambient air temperatures is well-established at den emergence.

Finally, Rode et al. (2018) found "the earliest estimated date of emergence from a den for a female later observed with cubs was 8 January, a duration of 61 days." They further show that, "[t]he shortest estimated denning duration for a reproductively successful female was 42 days." Thus, there are multiple lines of evidence that at 60 days, cubs could be viable outside of the den. The FWS is not claiming that their survival wouldn't be impacted by such an early emergence, but this reduced survival would be captured based on our litter survival rates calculated based on the date of emergence and time spent at the den post emergence.

Comment (76): One commenter stated the denning bear behavioral reaction probabilities are not supported by reliable scientific studies, but instead the LOA database of human observations. They state the use of the LOA database and case studies is fundamentally flawed because (1) the information was not obtained through a systematic or peer-reviewed study and (2) FWS acknowledges polar bears can move cryptically through their environment, avoiding detection by humans even when in close proximity to infrastructure and activities. Finally, the commenter states FWS cannot logically rely on the absence of reported take of surface bears by industry to conclude that little harassment has occurred in the past.

Our Response: The commenter is incorrect that the FWS approach to estimating disturbance to denning bears was not obtained through a peer-review study. We developed the den case studies methods, submitted them to a peer-reviewed scientific journal for review, and the manuscript was later published in a peer-reviewed scientific journal (*i.e.*, Woodruff et al. 2022). We agree that having more precise information on how polar bears respond to disturbance through an experimental study would be best. However, that would lead to an unacceptable number of dens being actively disturbed to obtain those data, including the potential for cubs to be abandoned. We will not propose to conduct such invasive research. Thus, we relied on existing information from the peer-reviewed literature, LOA reports, and other case studies to develop an informed estimate of disturbance from these. We discuss the potential for unobserved bears in the context of our predictive modeling estimates, which are designed to provide estimates inclusive of both observed and unobserved take.

Comment (77): The commenters cite a letter from Dr. Steve Amstrup that

discusses a non-zero probability that family groups en route from dens to the sea ice will encounter human activities that may cause mothers to run and separate from their cubs. They also state that this potential source of Level A harassment or cub mortality should be included in the predictive estimates of impacts to surface bears.

Our Response: The FWS's approach to assessing disturbance to denning bears only considers the period of time bears are at the den site, and not what happens after they depart the den site. However, we also consider the potential for disturbance to bears once they leave the den through their surface level disturbance analysis. We have no records from the LOA database that indicate a sow was permanently separated from her cubs. While we cannot state there is no chance of this occurring, it has not been reported in decades of operations, therefore we do not anticipate it occurring during the ITR period.

Comment (78): One commenter states that the FWS chose to re-examine the denning model and denning case studies, which resulted in a lower likelihood estimate of serious injury or mortality, to address least practicable adverse impact on the species or stock rather than work with the requester to examine how the frequency, methodology, timing or location of activities could be altered to reduce the probability of serious injury or mortality and thereby ensure that the take met the definition of incidental take which requires it to be infrequent, unavoidable, and accidental to address least practicable adverse impact on the species or stock.

Our Response: The FWS has always recognized that its analytical methods are not set in stone but are updated as new information becomes available or when issues with our current ways of interpreting information are identified. That is what happened with our reassessment of the case studies. Upon reviewing our case study assessments prior to the creation of the proposed ITR, we realized that we were not being consistent in how we applied some of our decision criteria, such that the methodology only allowed case studies to be classified as having an impact based on information other than phenology dates for dens that occurred after peak emergence date, but did not allow a similar thing to happen for dens with emergence prior to the peak emergence date. We also recognized that there was not sufficient information in the scientific literature to support the contention that a bear captured during (or just prior to) the den establishment

period would have no impact on the denning process. Thus, we further updated our case study inclusion criteria to address this. We also worked with the requester to incorporate a new data-led strategy for AIR surveys that prioritizes high density denning areas, leading to a decrease in survey time while increasing the amount of habitat surveyed.

Comment (79): One commenter noted that while the FWS predictive denning model incorporates the relationship between early emergence, early departure, and a decrease in litter survival rate presented by Rode et al. 2018, the authors of that study also noted that the earlier den emergences were likely of function of less healthy sows, indicating early emergence and/or departure may be a combination of natural factors, and not human disturbance.

Our Response: The relationship between earlier den emergence and decreased litter survival has been documented in multiple studies (Rode et al. 2018, Andersen et al. 2024). These studies did not include investigations of the mechanisms underlying the decision by bears to depart dens early vs. late, but the authors did speculate that maternal condition could be influential. Decreased maternal condition at emergence could be the result of poor condition prior to denning, but it is also possible that stress or changes in phenology during earlier denning periods caused by disturbance led to decreases in body condition. Further, the case studies document multiple instances of sows that appear to be in good body condition emerging from dens concurrent with a disturbance, strongly suggesting that the disturbance caused the bear to emerge earlier than it would have under undisturbed circumstances.

Comment (80): One commenter discussed the use of median thresholds for time at den between emergence and departure when evaluating denning model case studies. They highlighted the difference between the Andersen et al. 2024 dataset (hereby referred to as the reference dataset), which was used to establish a median value threshold, and the case study dens. Specifically, the commenter said the bears included in reference dataset were collared, and their den emergence and den departure timelines were measured from collar data, which is more precise than the human observation data available for case study dens. They also state collar data can potentially include time that was post den departure. The commenter states these differences contribute to the reference dens having a longer time at

the den before departure. The commenter further describes the reference dataset as having a bimodal distribution and large 50 percent confidence interval. They state these statistical traits may be an artifact of the small sample size and not representative of true post-emergence behavior. Finally, the commenter states almost all case studies would be classified as staying longer than the lower end of the 50 percent confidence interval, and almost all case studies would be classified as departing early if we relied on the upper end of the 50 percent confidence interval. They state it is unclear whether the modest effect of human activity on post-emergence den duration in the distribution data is due to low sample size in the undisturbed reference group, different measures of den emergence and departure between ITR case studies and the undisturbed reference group, or a true effect.

Our Response: The temperature-based methodology used to estimate emergence in Andersen et al. (2024) can lead to earlier emergence dates than the observation-based estimates in the case studies if bears open dens before they first leave the den and are observed on the surface. This could cause an overestimation of take in the post-emergence period, but for the same reason, this would cause an underestimation of take in the late denning period. We acknowledge this possibility, but because any overestimation in one period would necessarily be equal to an underestimation in the other, we will continue to use this approach unless a more appropriate alternative is revealed in future peer-reviewed studies. It is correct that the median post-emergence duration (6.25 days) in the Andersen et al. (2024) dataset was based on a sample of 20 dens. This is because we limited the data to dens that occurred on land in the SBS subpopulation for which cubs were observed in the spring following denning, which we considered to be most representative of the AOGA ITR simulation process. The Andersen et al. (2024) dataset also demonstrates that durations do not differ significantly ($p < 0.05$) between the SBS and Chukchi Sea subpopulations. If we include dens assumed to have produced cubs (emergence $\geq$ 27 Feb) from both subpopulations, the sample size increases to 36, the distribution of durations is not bimodal, and the median duration increases to 9.5 days. For future iterations of the simulation model, we will continue to consider the appropriateness of including a larger

sample of dens to address the commenter's concerns.

Comment (81): One commenter stated using a den emergence threshold for case study evaluation that is based on the median den emergence date of the dens included in Andersen et al. (2024) is difficult to justify. The commenter points to the standard deviation of den emergence dates in the referenced dataset, which they say is 19.5 days, and constitutes a spread so large that the median-based threshold would classify a substantial proportion of any sample of dens as early emergers regardless of whether disturbance occurred. They also state the observed 28.9 percent of case study dens classified as early emergers falls 21 percentage points below the 50 percent baseline expected by chance alone, which they say is the opposite relationship one would expect when comparing an undisturbed reference median to exposed dens in the case studies. Finally, the commenter states these statistical results indicate there is no clear evidence of early emergence, and instead the estimate appears to simply be the result of the median-based threshold cutting off the early end of what appears to be a typical distribution of emergences for undisturbed dens.

Our Response: We appreciate these comments and agree that the median-based approach can be improved if additional data or scientific studies become available to support revision or a viable alternative. However, we must account for the peer-reviewed scientific studies that have demonstrated that early den emergences and short durations at the den post-emergence are associated with reduced survival of polar bear litters (Rode et al. 2018, Andersen et al., 2024) and evidence from multiple case studies that document instances of den emergence or departure quickly following a disturbance event. In some cases, the reaction seems clearly causal, primarily because of the timing of the reaction compared to the human activity (e.g., a bear emerged from a den for the first time, looked towards a loader operating 146 m away, then departed for the sea ice with 1 cub within 5 minutes). The case studies, however, often lack the detailed information necessary for temporally linking an emergence or departure to an activity, and attributing the response to the activity becomes increasingly subjective as the temporal threshold increases. For example, a response concurrent with an activity is very likely to have been influenced by that activity, but this link becomes less clear if the response occurs days later. Our approach of using median dates of

emergence and departure to inform probabilities of disturbances resulting in early responses was developed to avoid this subjectivity in classifying case study responses. We continually review and refine the process based on received input and new scientific information.

Comment (82): One commenter references a response to comments in a prior rulemaking. In that comment response, the FWS compared den emergence times derived from collar temperature sensor data (such as those in Rode et al. (2018) and Andersen et al. (2024)) to those derived from case study data. Collar temperature sensors detect the moment the den is opened to outside air, whereas case study data, which are based on visual observations of bears on the surface, are likely to be recorded after initial emergence. However, the commenter disagrees that the comparison should not be made at all (i.e., that the comparison is completely uninformative). Rather, the commenter believes it is appropriate to keep in mind the difference in how emergence times are measured when making broad comparisons between the two distributions.

Our Response: From the beginning, the FWS has considered how this difference in methodology could influence the structure and outcomes on the simulation model. For example, if a bear in a case study was not observed until after March 12 (hence not classified as an early emergence), but the den was actually opened earlier than March 12 (or the bear was on the surface earlier, but not observed due to darkness, weather conditions, lack of observers in the area, etc.), then the probabilities of disturbance derived from the case studies could underestimate take during the late denning period. This underestimation, however, would likely be balanced by a concomitant overestimation in the late denning period because the imprecise observer-based emergence estimate would underestimate the duration of the post-emergence period. We update the ITR approach continually based on input from concerned parties and as new empirical data and scientific studies become available.

Comment (83): One commenter states that using the median as a threshold for classifying Level A harassment creates a baseline classification problem in assessing how industry activities alter polar bear behavior.

Our Response: We appreciate this point and agree that the median-based approach can be improved if additional data or scientific studies become available to support revision or a viable alternative. However, we must account

for the peer-reviewed scientific studies that have demonstrated that early den emergences and short durations at the den post-emergence are associated with reduced survival of polar bear litters (Rode et al. 2018, Andersen et al., 2024) and evidence from multiple case studies that document instances of den emergence or departure occurring as a response to a disturbance event. In some cases, the reaction seems clearly causal, primarily because of the timing of the reaction compared to the human activity (e.g., a bear emerged from a den for the first time, looked towards a loader operating 146 m away, then departed for the sea ice with 1 cub within 5 minutes). The case studies, however, often lack the detailed information necessary for temporally linking an emergence or departure to an activity, and attributing the response to the activity becomes increasingly subjective as the temporal threshold increases. For example, a response concurrent with an activity is very likely to have been influenced by that activity, but this link becomes less clear if the response occurs days later. Our approach of using median dates of emergence and departure to inform probabilities of disturbances resulting in early responses was developed to avoid this subjectivity in classifying case study responses. We continually review and refine the process based on received input and new scientific information.

Comment (84): One commenter states that poor maternal body condition may affect post-emergence duration and reduced cub survival.

Our Response: We agree that poor maternal condition could cause females to depart the den site early. Although it's possible that poor body condition could be unrelated to disturbance, it is also possible that disturbance during denning could contribute to that condition (e.g., through stress or disruptions to denning phenology or activities earlier in the denning period). Presently, the mechanisms behind this relationship are not well understood, but the scientific literature demonstrates that decreased time at the den site post-emergence is associated with reduced litter survival and disturbance can decrease that time. At every step, we incorporate the best available science into the ITR process and amend that process as new information becomes available.

Comment (85): One commenter states that they think research activities are typically inappropriate proxies for predicting incidental take related to oil and gas activities. The commenter also states that they believe the inclusion of research case studies as a proxy for

industry activities likely inflates the incidental take probabilities in the denning analysis.

Our Response: Sources of disturbance in research case studies include snowmachine, helicopter, fixed-wing aircraft, and people on foot. Each of these modes of travel are used by Industry and produce sound profiles similar to other types of Industry activities. Recognizing polar bear research may focus on activities involving closer proximity to polar bears than Industry activities focused on avoidance or minimization, the distributions of distances at which the activities occurred overlap substantially.

Comment (86): One commenter states that they disagree with the FWS classification of Case Study 32 as a cub mortality.

Our Response: The FWS did not conclude that a cub mortality did occur, just that there was likely den abandonment during the early denning period, which may have resulted in the loss of one or more cubs due to the early emergence date before cubs would have been viable.

Comment (87): One commenter states that they disagree with assertions described in Woodruff et al. (2022) that say the use of median- or mean-based values should minimize bias associated with individual variation. The commenter believes that using median- or mean-based threshold is unlikely to capture true disturbance rates and leads to an overestimation of disturbance.

Our Response: It isn't possible to know when a bear that was exposed to disturbance would have emerged or departed in the absence of that disturbance, but multiple case studies document instances of den emergence or departure occurring very soon after disturbance events, so we disagree that it is possible that true rates are low or close to zero. In some cases, the reaction seems clearly causal, primarily because of the timing of the reaction compared to the human activity (e.g., a bear emerged from a den for the first time, looked towards a loader operating 146 m away, then departed for the sea ice with 1 cub within 5 minutes). The case studies, however, often lack the detailed information necessary for temporally linking an emergence or departure to an activity, and attributing the response to the activity becomes increasingly subjective as the temporal threshold increases. For example, a response concurrent with an activity is very likely to have been influenced by that activity, but this link becomes less clear if the response occurs days later. Our approach of using median dates of emergence and departure to inform

probabilities of disturbances resulting in early responses was developed to avoid the potential for bias in subjectively classifying case study responses. We agree, however, that the median-based approach can be improved if additional data or scientific studies become available to support revision or a viable alternative.

Comment (88): One commenter presented an analysis and concluded that using a median-based threshold to estimate disturbance of denning bears likely overestimates actual den disturbance rates.

Our Response: The smallest effect considered in the simulations is 5 days, so it isn't possible to gauge results directly for a 1-day change in the behavior. Nevertheless, these results suggest that our approach may be as likely to underestimate take as it is to overestimate it based on the true level of disturbance. Based on the emergence simulations, if >50 percent of bears emerge a day early due to disturbance, these simulations suggest our method underestimates take, whereas take would be overestimated when <50 percent of bears are disturbed. Although importantly, these simulations suggest that the magnitude of the bias is not equal above and below a disturbance level of 50 percent. At an effect size of 5 days (again, even 1 day constitutes take, but that effect isn't included), the median-based approach overestimates take by 3–4 percent when the true rate of disturbance is 30 percent. When the true rate of disturbance is 70 percent, however, this simulation suggests take is being underestimated by 10 percent (holding 5 days constant). Although true rates of disturbance cannot be known with currently available data, these simulation results suggest that our median-based approach is likely not overestimating take based on the MMPA definition.

Comment (89): One commenter stated that the denning simulation assumes that nearly 3 out of 4 polar bear cubs within 1 mile of industry activities during the post-emergence period will experience potential injury.

Our Response: This is an incorrect interpretation of our methods. The commenter is forgetting that first, dens should not be disturbed if they were identified by one of the forward looking infrared (FLIR) surveys. Thus, the actual percent of dens that could be impacted would be substantially less after FLIR detections are accounted for.

Comment (90): One commenter asserts that the FWS's modeling results suggest that the FWS should consider that there would be at least two lethal take event of cubs during the 5-year

span of the ITR, including one lethal take during early denning and one lethal take due to survival fitness impacts from disturbance during late denning and/or post-emergence.

Our Response: The FWS predictive modeling did consider the possibility of lethal take during the early denning period. We also considered the potential impacts to litter survival probability from impacts during the late denning period. In robust analysis the overall estimated average SBS reduction in survival probability is calculated as (overall undisturbed survival) – (overall accounting for disturbed lethal/A/B survival). Those values are $0.8547933 - 0.8498685 = 0.0049248$, meaning the total drop in average survival probability for SBS land-based dens is estimated as 0.4 percent.

Comment (91): One commenter suggested that the FWS did not consider the potential lethal impacts shown by its own modeling and they believe the litter survival should have been 49 rather than 51.

Our Response: We do not anticipate loss of any cubs through den abandonment. Focusing on the take that is anticipated, while also considering conjectural or speculative impacts, the FWS's negligible impact analysis addresses the extent to which the specified activities would and could impact SBS polar bears at the stock level. Further, the litters that experience Level A take over a 5-year period are anticipated to have an average 12.6 percent decrease in survival probability. This change in survival probability is not anticipated to have more than a negligible impact on annual rates of recruitment for the SBS stock. The stock exhibits marked natural interannual variation in cub survival rates (Bromaghin et al. 2021) which are much higher than the anticipated effect of potential disturbance. Even with this variation, the most recent science has supported that the population has stabilized (Bromaghin et al. 2021).

Comment (92): One commenter stated that the FWS's den disturbance model is arbitrary and capricious because it ignores the best available science indicating that emergences that occur during the late denning period, but prior to February 27 will result in lethal take. They stated the underlying analysis in Andersen et al. (2024) did not encompass lethal impacts (zero survival probability), and moreover were calculated after removing from the data set dens where emergence occurred prior to February 27, because for all dens where the emergence date occurred prior to February 27 the denning bear was later observed post-

emergence with no cubs, indicating that there were no viable cubs at the time of emergence.

Our Response: We disagree. Part of the reason Andersen et al. justified excluding dens prior to February 27 was to avoid including non-maternal dens (*i.e.*, shelter dens) where cubs would not be born. This is an important factor to consider in this type of analysis, and therefore indicates that our approach is not arbitrary or capricious. Unlike empirical data from collared bears where it is unknown when cubs were born, or how many are present at the time of emergence, our analytical model is able to assign simulated birth dates (based on existing science). Thus, for simulated dens, we know which were born with cubs and when the cubs were >60 days old. Additionally, our approach does not consider the presence of non-maternal dens, so it makes sense that we would rely on an analysis that purposefully attempted to exclude those. Further, it is an incorrect assumption that because bears were observed without cubs later in the spring if they emerged prior to February 27 that means they emerged without cubs. While that is one possibility, another is that she emerged with cub(s) but lost them prior to being later observed in spring.

Comment (93): One commenter states the FWS has failed to consider the potential impacts of early emergence and/or early departure on cub survival into the autumn, citing information from Rode et al. (2018) on the positive relationship between sow body weight at emergence and cub and litter survival.

Our Response: The FWS disagrees that we did not incorporate information from Rode et al. regarding duration in the den and its effects on litter survival. In actuality, we utilized the underlying data in Rode et al. (2018) and Andersen et al. (2024) to estimate the relationship between time in the den (and at the den post emergence) and litter survival in the spring. Instead of relying on a single metric, we rely on the underlying data to estimate this relationship and apply it to our analytical methods.

Comment (94): One commenter suggests that the FWS's rationales for revising its assessments of case studies were not justified and resulted in underestimation of the probability and extent of lethal take and Level A harassment.

Our Response: The FWS took a very detailed look at our previous set of methods for analyzing case studies and realized there were some areas where they could be improved. So, we reassessed them based on these updated

criteria. We articulated why we made changes to each of the case studies and justified those decisions based on polar bear biology.

Comment (95): One commenter points out that FWS revised its assessment of Case Studies 8 and 9 and removed these Case Studies from its denning analysis inputs because the polar bears in these studies had been previously captured for research purposes. The commenter, citing the opinions of Dr. John Whitman and Geoff York, implies that it was arbitrary for the FWS to remove these studies because the best available science indicates that research captures have minimal effects, and there is no evidence indicating that the research capture influenced the subsequent response to disturbance. The commenter further suggests that the FWS's removal of Case Study 9 is not consistent with the rationale FWS offered to justify its removal because the research capture occurred during the den establishment period, since the record indicates the bear was collared prior to den establishment.

Our Response: The FWS has always excluded case studies involving research activities from the calculation of disturbance probabilities if those research activities were deemed to not be representative of activities that the oil and gas industry would conduct. We had previously included two case studies (8 and 9) in our analysis where polar bears were captured by researchers during the den establishment period, although both were not included as disturbance during the den establishment period. Both, however, were used to estimate disturbance during subsequent den periods (*i.e.*, early denning and late denning, respectively). We acknowledged that we do not know the effect of intense, capture-related disturbance during the den establishment period on subsequent denning behavior or phenology and therefore cannot be sure that these observations would reflect conditions experienced by bears disturbed by oil and gas activities. The commenter indicates that by excluding Case Study 9, we're inconsistent with our own justifications for dropping it. Yet, as described above, our criteria for dropping this den was that she was collared during the den establishment period. This was in the case study record: "The bear was satellite radio collared and denned on a north coast barrier island on 20 October 1988." This is consistent with our stated rationale because capture is a stressful event for bears and thus could impact denning

activity and potentially phenology. That is why it was dropped.

Comment (96): One commenter noted that upon reevaluation the FWS reclassified Case Study 17 from early emergence and departure in response to disturbance to a classification of early departure only. The commenter cites the opinion of Dr. Joh Whiteman and Geoff York to conclude that the reclassification is not rational and should be considered arbitrary and capricious.

Our Response: Upon reviewing our case study assessments prior to the creation of the 2025 revised ITR, we realized that we were not being consistent in how we applied our decision criteria, such that it only allowed case studies to be classified as having an impact based on information other than phenology dates for dens that occurred after peak emergence date, but we did not allow a similar thing to happen for dens with emergence prior to the peak emergence date. Thus, we are actually being more consistent with our stated procedures for assessing case studies and not being arbitrary or capricious.

Comment (97): One commenter suggests that the FWS improperly concluded that any observed emergence after the median emergence date must be a natural emergence rather than an early emergence in response to a disturbance event. In the commenter's opinion this will lead to 50 percent mischaracterization of observations, therefore it is arbitrary and capricious for the FWS to make this conclusion.

Our Response: We agree that our case study methods can lead to some dens being classified as disturbed when they were not, or some that were disturbed as not being disturbed. Because we do not know when polar bears gave birth to cubs, we needed to rely on population-level metrics to make our assessments. Because we do not bias our assessment to be more prone to be disturbed (or less disturbed), our approach allows for the average effects to be identified over the course of 10,000 simulations. These procedures went through peer-review and are published in the scientific literature (Woodruff et al. 2022).

Comment (98): One commenter stated that past reports should not be the only basis of determining the type of harassment denning polar bears experience. They pointed out that FWS states reports of lethal take of cubs via den abandonment are rare, but that den abandonment would be difficult to observe.

Our Response: The FWS agrees that den abandonment would be difficult to observe. This, combined with the other

uncertainties listed in the proposed ITR, is why the FWS has also presented estimates generated using predictive modeling which considers not only past observational reports but also scientific studies illustrating various cause and effect mechanisms. As stated in the proposed ITR, “FWS’s predictive model results provide, among other things, a basis for assessing the probability and severity of potential impacts that the scientific literature suggests are possible but have not been observed or are rarely observed in the ITR area.”

Comment (99): The requester stated that the FWS predictive modeling of impacts to denning bears does not reflect best available scientific information because it relies on case studies that do not represent the impact of industry activities and relies on precautionary assumptions.

Our Response: The FWS has provided clear justification for its use of case studies that have a research component. We have always removed case studies where the research efforts did not have a parallel with Industry activities (e.g., capture). However, just because a researcher walked in the general vicinity of a den does not mean that the bear would perceive a different risk than if it were an Industry employee walking in the general vicinity. And we have case studies where dens have been located very close (~50 feet) from active industrial activities all winter before the den was discovered on emergence. So, including certain research-related case studies is appropriate because they represent human activity around polar bear dens and how bears respond to it. Additionally, a number of case studies had researchers periodically near the den (e.g., setting up cameras), but then there is documentation of a bear responding to Industry activity in the distance, but not to the researchers setting up the camera. Thus, we still believe these are representative case studies that should not be ignored.

Comment (100): The requester states the aircraft-related case studies used to calculate disturbance probabilities are not representative of industrial activity, even pipeline surveys. They state aircraft-based surveys of pipelines are unlikely to overlap with maternal polar bear dens because there are few polar bear dens that occur in the region relative to the suitable habitat in the coastal plain, spills are rare and distributed throughout a large network of infrastructure, and only remote stretches of pipelines are surveyed via aircraft.

Our Response: The FWS has provided clear justification for its use of case studies that have a research component.

We have always removed case studies where the research efforts did not have a parallel with Industry activities (e.g., capture). Including certain research-related case studies is appropriate because they represent human activity around polar bear dens and how bears respond to it.

Comment (101): The requester states that the case studies associated with research activities (both ground-based and aerial) are not representative of industrial activities and therefore their inclusion in the disturbance probabilities creates bias in the denning model.

Our Response: The FWS has provided clear justification for its use of case studies that have a research component. We have always removed case studies where the research efforts did not have a parallel with Industry activities (e.g., capture). However, just because a researcher walked in the general vicinity of a den does not mean that the bear would perceive a different risk than if it were an Industry employee walking in the general vicinity. We have case studies where dens have been located very close (~50 feet) from active industrial activities all winter before the den was discovered on emergence. So, including some research-related case studies is appropriate because they represent human activity around polar bear dens and how bears respond to it. Additionally, a number of case studies had researchers periodically near the den (e.g., setting up cameras), but then there is documentation of a bear responding to Industry activity in the distance, but not to the researchers setting up the camera. Thus, we still believe these are representative case studies that should not be ignored.

Comment (102): The requester cites three publications: Stankowich (2008), Blumstein et al. (2003), and Fernandez-Jurcic et al. (2005) in support of their statement that wildlife responses are strongly influenced by approach behavior and perceived intent with direct, targeted approaches eliciting significantly greater disturbance than tangential or passing movements.

Our Response: The cited references are not directly applicable to draw the commenter’s conclusions or are counter to the argument being made by the commenter. A primary consideration that must be made in evaluating the applicability of these sources is that all three of the cited papers specifically focus on prey species, either small birds or ungulates (e.g., hooved animals such as deer, moose, or caribou). The behaviors of prey vs. predator wildlife species display when confronted with humans are not interchangeable and

they cannot be assumed to act similarly. Many prey species view humans as predators and elicit similar responses, whereas this cannot be assumed true for predator species such as polar bears. Therefore, the response of small birds and ungulates to humans should not be used as proxy for the response of apex predators (e.g., polar bears) as the commenter has done.

Furthermore, the conclusion drawn from these specific articles does not directly support the claim that wildlife is significantly more disturbed by direct approaches than tangential movements. In Fernandez-Jurcic et al. (2005) the authors found that four of the five birds in their study were disturbed (measured as “flight initiation distance” (FID)) at greater distances from tangential approaches than in direct approaches. The second referenced paper that focuses on birds, Blumstein et al. (2003), did not compare nor attempt to compare direct and tangential approaches. This study only assessed the impact of direct approach on various bird species. Secondly, a major conclusion drawn by the authors is that the distance that elicits disturbance response in wildlife is species-specific and cannot be easily applied interspecifically (between species). A conclusion that is particularly pertinent when using the results of Blumstein et al. (2003) to make assumptions about polar bear behavior. The third article cited by the commenter concludes that ungulates, which are a prey species, are more likely to be disturbed by humans on foot than other stimuli (e.g., vehicle, human noises). However, as previously mentioned, responses of prey species (which often view humans as predators) are not a valid proxy for the response of apex predators like polar bears to humans. When other researchers have compared the behavioral impacts of humans on multiple predator (including grizzly and black bears) and prey species (all ungulates) they found different behavioral reactions between the two groups of wildlife (Granados et al. 2023).

Comment (103): The requester states that there are no Industry activities, even pipeline surveys, that intentionally or repeatedly hover a helicopter above a known polar bear den as they state was done in Case Study 4. The requester suggests that conflating the research activities described in Case Study 4 with industry activities inflates estimated probabilities of harassment and the projected potential for take, specifically the risk of Level A or lethal take. They further state aircraft-based surveys of pipelines are unlikely to overlap with maternal polar bear dens

because there are few polar bear dens that occur in the region relative to the suitable habitat in the coastal plain, spills are rare and distributed throughout a large network of infrastructure, and only remote stretches of pipelines are surveyed via aircraft.

Our Response: The FWS has provided clear justification for its use of case studies that have a research component. We agree that case studies concerning activities that are not analogous to the specified activities in terms of their potential to impact polar bears should not be incorporated into the inputs of predictive modelling. Over the years, we have carefully scrutinized the case studies applying this standard and have in some instances removed case studies that after further review were deemed non-analogous. However, wholesale removal of all case studies concerning activities entailing a research component is not appropriate, as some activities conducted for the purpose of research closely parallel activities conducted by Industry for other purposes in terms of their capacity to impact polar bears. In other words, the status of the person conducted the case study activities, and the purpose of such activities, matter less than the extent to which the case study activities parallel the specified activities in terms of factors such as equipment used and stimuli produced. With respect to the example cited in this comment, while routine pipeline surveys generally occur at a higher altitude and in a linear fashion, weather conditions or other operational needs may require aircraft to fly lower or to revisit or hover over certain areas. Considering a case study that improves understanding of how such activities may affect polar bears helps us more accurately estimate take from analogous specified activities in the future.

Comment (104): Commenters suggested that the case studies used in the FWS's analyses resulted in an overestimation of effects of oil and gas activities to denning polar bears. The commenters cited differences in distances from and nature of sources of anthropogenic disturbances, seasonality, den phenology, and location as factors in the FWS's interpretation of the data in a manner that the commenter deemed overly conservative. Commenters stated that the den case studies used to estimate den disturbance rates are substantially closer to industry activities compared to the distances of simulated dens to industry activities, thus resulting in the denning model overestimating take.

Our Response: We agree with commenters that there is a relationship

between the distance between a den and the source of disturbance. This factor was apparent in the recent study of aircraft overflights that we published on the relationship between altitude and polar bear take. Unfortunately, these data are challenging to collect in a designed study because they would require purposefully disturbing dens, which could lead to significant demographic impacts to the population. Instead, we must rely on existing case study data to help inform this critical model parameter. The arguments made by the commenter highlight this difficulty. While it is true that the distances between simulated dens and Industry are on balance higher than in the case study dataset, this is likely attributable, at least in part, to detection bias toward dens found closer to infrastructure. But just because fewer dens were detected farther from human activity in the case studies does not mean that dens farther out were not disturbed; it is possible such dens existed and were disturbed but were not detected. Numerous case studies show that bears can be disturbed by human activity at distances greater than those suggested by the commenter, and we appropriately account for this possibility.

Comment (105): One commenter stated 805-m buffers are inadequate to prevent disturbance of polar bears, especially since bears cannot distinguish between industrial activity and research monitoring.

Our Response: The FWS has not included 805-m buffers in the mitigation measures for this ITR. The ITR requires 1.6 km (1 mi) operational mitigation zone around putative polar bear dens.

Comment (106): One commenter stated that the fact that female polar bears have rarely been observed abandoning a den during early denning, which is the FWS's stated rationale for restricting the denning impact area to half a mile during the early denning stage, does not necessarily mean that polar bears have not experienced harassment expressed in another form (*i.e.*, physiological injuries) during this stage. Their comment suggested the FWS should consider this possibility and discuss information such as studies of noise propagation and detection probabilities as a function of distance from dens (Owen 2021), highlighting that the FWS supplemental analysis states that "successful denning, birthing, and rearing activities require a relatively undisturbed environment."

Our Response: It is possible that denning females could react inside the den in response to outside activities. However, the FWS has no data to

determine if this occurs, how it would manifest (in the small space of a maternal den there are few ways behavioral patterns may be disturbed), and if it does, how frequently. The commenter is also correct that the referenced study provides information on how noise from different sources of anthropogenic disturbance propagates into the den at different distances.

However, this study provides no information on how bears respond to the different activities, thus cannot be used to inform response rates to maternal females while inside the den (a time where their responses to activity cannot be observed).

Comment (107): One commenter states the louder and closer an exposure is to a den, the more likely is to affect a denning bear, and den Case Study 32 should not be included in the case studies to classify den disturbance rates.

Our Response: The FWS agrees that there is a higher chance of disturbance occurring to dens closer to sources of disturbance. However, to claim that the level of disturbance experienced by this bear is an outlier is not supported by other observations in the collection of case studies. For example, Case Studies 58 and 59, which both involve exposure to only industrial activities, both describe dens that had significant sources of disturbance occurring for prolonged periods, immediately adjacent to the dens. Thus, the den from Case Study 32 is relevant to retain.

Comment (108): The requester stated that the FWS-proposed 1 mi mitigation zone around denning polar bears is not practicable on the basis that it is unnecessary. The requester stated the FWS should adopt the 805 m mitigation zone around polar bear dens included in their Request, referencing data showing the reduced likelihood of disturbance of denning bears beyond 805 m. The requester also pointed to FWS's use of a 805 m mitigation zone in recently-issued an incidental harassment authorization as evidence that a 805 m mitigation zone is more than sufficient to effect the least practicable adverse impact on denning polar bears.

Our Response: As stated in the proposed ITR, the FWS "ensure[s] the least practicable adverse impact by requiring mitigation measures that are effective in reducing the impact of specified activities, but not so restrictive as to make specified activities unduly burdensome or impossible to undertake and complete." While we agree that likelihood of disturbance decreases as the distance between human activities and dens increases, the best available scientific evidence shows that denning polar bears can be disturbed at distances

greater than 805 m (0.5 mi). We thus find that expanding the 805 m mitigation zone proposed in the Request to a 1 mi mitigation zone (1,610 m) as contemplated in the proposed ITR will be effective in reducing the impact of the specified activities. We have not been provided any information demonstrating why implementing a 1 mi mitigation zone would be so restrictive as to make the specified activities here unduly burdensome or impossible to complete, and note that a 1 mi mitigation zone is required and has been successfully implemented via the current 2021–2026 Beaufort Sea ITRs. With respect to the one recent instance where we imposed a smaller, 805 m mitigation zone in an incidental take authorization, our determination to do so was based on project-specific safety considerations due to a specific sea ice route that required grounded ice.

Comment (109): The requester cited the conclusion of Larson et al. (2020), that denning polar bears on Alaska's North Slope are overtly unreactive (*i.e.*, largely tolerant) of human activity near den sites (<1.6 km) and that den abandonment did not occur when bears were exposed to low levels of disturbance.

Our Response: The requester is selectively using Larson's study to make their point. However, in the results section of Larson, they showed that 37 percent of dens displayed disturbance at levels that would be considered by the authors to be harassment under the MMPA. Even low-intensity stimuli for large machinery resulted in 31 percent of dens displaying behavior consistent with harassment. Thus, the statement cited by the requester is not representative of ultimate findings of that same study.

Comment (110): One commenter stated the FWS should analyze the potential impacts of AIR surveys as direct, not incidental, take.

Our Response: The FWS has considered this, and after reviewing hundreds of hours of FLIR footage, not a single instance of polar bear harassment (which would be readily apparent in the survey footage) was noted. We also note that if harassment were to occur from AIR surveys, it would meet the criteria of an incidental, as opposed to intentional, take.

Comment (111): One commenter stated that the FWS restricting simulated dens to be located on the mainland because no permanent infrastructure occurred on the barrier islands implies that only permanent infrastructure can disturb denning polar bears. This assumption conflicts with the FWS's statement that oil and gas

activities, such as road construction and use, snow road construction, maintenance and use, and survey activity (including seismic surveys), have the potential to disturb denning polar bears.

Our Response: The FWS simulated dens on barrier islands, and where the spatio-temporal footprint of the specified activities overlapped with these simulated dens, the predictive modeling estimates incorporated that den exposure.

Comment (112): One commenter stated that there is no foolproof technology available to oil and gas workers for detecting polar bear dens, suggesting this may result in thumper trucks crushing dens.

Our Response: We agree there is no foolproof way to detect all polar bear dens on the landscape. However, our analysis has shown that the probability of running over a den would have a very low probability given the large area they occur over, existing mitigation measures, the fact that companies actively avoid building tundra travel or ice roads on steep slopes (*i.e.*, the same terrain bears create dens). We considered this risk in our analysis.

Comment (113): One commenter stated the proposed ITR and associated analysis should address the potential for the specified activities to create conditions that are attractive to bears seeking to create a den, including but not limited to, the likelihood that the presence of a road will result in the accumulation of drifting snow. This could result in polar bears denning in areas of high disturbance. The commenter stated FWS should address the likelihood of this occurring and whether it meets the MMPA definition of harassment.

Our Response: The FWS relies on interferometric synthetic aperture radar data to define where denning habitat exists to simulate dens. This dataset captures many man-made features where snow could accumulate, so this is accounted for in our modeling.

Comment (114): One commenter stated that the proposed ITR did not explore certain conservation concerns that, in contrast, were discussed in the FWS draft stock assessment reports for SBS polar bear. These concerns included potential negative impacts to denning bears from increased shipping and an expanding industrial footprint in northern Alaska, as well as negative impacts to the value of denning habitat from nearby infrastructure and the lack of a reliable method for detecting dens early in the denning season.

Our Response: Impacts to sea ice-based maternal polar bear dens from

changes in shipping practices were not included in the FWS estimates for the proposed ITR because ice breaking during denning season was not included in the specified activities. The effects of an expanded industrial footprint on land were included in our predictive modeling efforts. We did so by using the geospatial files provided by AOGA at our request.

Comment (115): One commenter stated FWS should fully analyze the potential effects of AIR surveys, monitoring activities, and operational activities on denning bears, including the potential for disturbance, injury, or mortality. The commenter also stated the FWS must justify any reduction in den protection measures with best available science, and the potential impact to polar bear dens from repeated AIR surveys must be discussed.

Our Response: After reviewing hundreds of hours of FLIR footage, not a single instance of polar bear harassment was noted so the FWS no longer considers it a source of disturbance for denning polar bears. We have considered the impact of operational activities on polar bears in its assessments. We do not anticipate impacts from specific monitoring activities that are not already captured by our assessments of operations, as all monitoring would be completed in conjunction with operational activities.

Comment (116): One commenter suggests that the proposed ITR does not address whether AIR surveys are expected to be equally effective throughout the area of the proposed ITR. The commenter specifically states that the proposed ITR should address the impacts of infrastructure that could warm the landscape, such as pipelines, drill pads, or buildings, on the efficacy of AIR surveys.

Our Response: It was previously thought that warmth from infrastructure could impact FLIR survey efficacy, but in recent years, operators have shown that they can conduct FLIR surveys adjacent to pipelines without the imagery being washed out by the heat emanating from the pipeline.

Comment (117): One commenter stated that the distribution of denning in the FWS denning model does not adequately account for specific denning hotspots and that the model's kernel density map bleeds concentrated high-use denning habitat into less important denning habitat.

Our Response: The FWS uses the best available published scientific data (Durner et al. 2018) to estimate the kernel density map. Not all dens in Durner et al.'s den catalogue, however, are appropriate for estimating a

utilization distribution because a majority of those dens do not have information on the search effort. Thus, many of the dens are likely biased towards areas where humans are more likely to be present compared to areas further from human settlements and infrastructure. Accordingly, we utilize a subset of the Durner den catalogue to estimate the denning utilization distribution, relying only on those dens identified from a satellite collared bear, or one where a den was discovered from a systematic survey of VHF-collared bears on the landscape. This was done to ensure that the assumption could be made that the dens are a representative sample of where dens occur on the landscape rather than representative of where dens are most likely to be observed by humans on the landscape. As such, we recognize that certain areas might not be identified as “hotspots” where dens have been seen in the past (but not identified through systematic surveys). We continue to add additional dens to the den catalogue and update the den UD as new dens are discovered from collared bears. The commenter is also correct that the UD “bleeds” into areas with “less important” denning habitat. This is a standard feature of UDs and those that use UDs must strike a balance between having too small of a kernel (*i.e.*, too little smoothing) vs. too large of a kernel (*i.e.*, too much smoothing). We have attempted to strike this balance with our chosen kernels to ensure that with our relatively limited dataset, we’re not underweighting areas that don’t have a known den present but are still within the general vicinity of where dens have been observed. The commenter is also correct that our current approach may miss certain areas that are used repeatedly across years if denning by a collared bear did not occur in that area. This again is partially overcome by using larger kernels. We also note that as more bears are collared through research, our unbiased sample of dens will increase and will better capture these nuances. This was shown to be true in this current ITR as we included an additional den on Howe Island (an important denning area that did not have a usable sample previously).

Comment (118): Commenters stated mitigation measures are insufficient because AIR surveys fail to detect a substantial portion of polar bears, with many commenters referencing research findings that FLIR missed detection of 55 percent of polar bear dens. Commenters additionally stated den locations are likely to change in response to habitat loss and prey

scarcity, contributing to challenges with detection. One commenter stated den detection may become more challenging with increasingly unstable weather patterns due to human caused climate change.

Our Response: The FWS accounts for these potential misses in its analytical approach and this is detailed in the supplemental information. We are committed to using best available scientific evidence in our analyses and should efficacy rates change in the future due to climate change or other factors they will be modified in our predictive modeling going forward.

Comment (119): One commenter suggests that because seismic surveys must occur in winter, when it is largely dark outside, operators will not be able to see closed polar bear dens. Additionally, the commenter states that den detection using hand-held FLIR is no more than 11 percent and therefore, it is unlikely to be an effective mitigation tool for detecting maternal dens.

Our Response: The FWS views the addition of vehicle-mounted FLIR as a valuable additional mitigation measure, but also does not consider any increase in detection in the den disturbance model as a result. This is because we do not have a good understanding of how effective they are for detecting dens, aside from knowing that they are less effective than aerial FLIR. We agree that darkness in winter reduces opportunities to detect polar bear dens visually, especially given they are likely to be completely covered in snow by the time seismic surveys occur. However, our analytical methods account for the distribution of dens, their phenology, and whether they are detected by aerial FLIR or not and found a low probability of encountering dens. Those that aren’t detected are accounted for in our approach and the potential for take is assessed. Further, we have considered the probability of running over dens during seismic surveys and found that to occur with such a low probability (*i.e.*, $p < 0.005$) that is deemed extremely unlikely to occur. Especially given that seismic vehicles won’t drive over steep slopes, and this is primarily where denning habitat is located.

Comment (120): One commenter states that the FWS’s modeling does not address impacts to dens on barrier island or shore fast ice. The commenter states that impacts to potential dens in these specific habitats should have been considered because AOGA intends to undertake extensive activities in the marine environment, and the geographic scope of its anticipated exploration activities is not identified.

Our Response: The FWS has previously found limited existing evidence for denning occurring on shore-fast ice, and the pressure ridges needed for snow accumulation rarely occur in shore-fast ice, so we did not include dens in these areas in our analysis. As for barrier island dens, we do simulate dens on barrier islands, but as noted, none of AOGA’s proposed activities exist on or adjacent to barrier islands with denning habitat during the denning period, so there was no reason to consider disturbance to them.

Comment (121): One commenter believes that in the proposed ITR the FWS has failed to consider the possibility of a den being directly run over [by a vehicle] based on an assumption that industry operators will detect and avoid the dens when driving. The commenter also states that the requester, AOGA, does not specify the location of seismic surveys and the FWS does not properly account for the extent of these seismic surveys that will occur over the course of the 5-year period of the ITR.

Our Response: The FWS has considered the possibility of a den being run over by industrial activity and presented an analysis in the 2021–2026 ITR. First, it would be restricted to seismic surveys or the creation of an ice road or a tundra travel route. Second, those areas would receive multiple (at least 2) FLIR surveys to detect some of the dens prior to using those areas. Even when placing tightly-spaced seismic arrays over the entire 1002 area of the ANWR (where some of the highest density denning areas for the SBS are located but not within the geographic scope of this ITR) resulted in a very low probability of running over a den (≤ 0.005). This estimate fails to consider that typically oil operators would not develop a road/route/seismic line over a steep slope that would be challenging to get a vehicle down, where the bulk of polar bear den habitat is located. So, we have considered the risk to polar bears of being run over while in the den and found the probability to be so low that it was deemed extremely unlikely to occur.

Comment (122): One commenter states that the FWS overestimates the efficacy of vehicle-mounted FLIR to detect and avoid running over dens that occur outside of permanent infrastructure. The commenter also states that in the petition, AOGA recognizes that there are limitations the vehicle-mounted FLIR but does not identify its predicted efficacy.

Our Response: The FWS views the addition of vehicle-mounted FLIR as a valuable mitigation measure, but also

does not assume any increase in detection in the den disturbance model as a result. This is because we do not have a good understanding of how effective they are for detecting dens, aside from knowing that they are less effective than aerial FLIR. So, we don't overestimate its effectiveness.

Comment (123): One commenter stated that the FWS does not provide specific operational constraints for avoiding potential denning habitat, such as requirements to avoid driving over areas commonly used for denning. They stated the FWS's failure to define what constitutes habitat suitable for denning is problematic, and any habitats showing a difference of 1m in elevation and a slope of 8 degrees or greater should be considered potential denning habitat and should be avoided by activities proposed in this ITR.

Our Response: As was explained in the proposed ITR, prohibition of driving over areas of high relief, embankments, or stream and river crossings would be operationally prohibitive, and as such is not a practicable mitigation measure. A restriction that broad would effectively prevent ice roads and tundra travel because as the commenter notes denning habitat is widely distributed throughout the ITR region. The FWS has worked in coordination with USGS to identify potential denning habitat using synthetic aperture radar and has shared that information with the general public.

Comment (124): One commenter states that the proposed ITR overstates the ability to detect maternal dens before on-the-ground activities occur and it is probable that undetected den will be present in the geographic region. The commenter further suggest that these dens could be exposed to multiple and varied sources of potential disturbance.

Our Response: The FLIR efficacy rate used is derived from peer-reviewed studies that use empirical data to obtain their respective estimates. So, we do not overstate the detection probability, but instead rely on what the best available science says. We agree that dens that are undetected can be exposed to multiple and varied sources of disturbance, which we account for in the predictive denning model.

Comment (125): One commenter states the FLIR (AIR) efficacy rates used in the FWS predictive denning model are skewed by the inclusion of the results from Wilson & Durner (2020), and at most FLIR surveys are likely to detect 15 percent of dens. They further state that research suggests that a 15–45 percent detection rate is probably close to the highest that could reasonably be

expected from FLIR surveys, and 15 percent is the most realistic rate for any given survey.

Our Response: The FLIR efficacy rate used is derived from peer-reviewed studies that use empirical data to obtain their respective estimates. We do not overstate the detection probability, but instead rely on what the best available science says. Because each of the three studies have their own unique limitations (*i.e.*, Wilson and Durner: data from Amstrup were of known dens from a helicopter; Smith et al.: data did not account for search effort; Woodruff et al.: estimates derived from artificial dens versus real polar bear dens), it is most appropriate to consider the variation across the three studies because it is unclear which one offers the “correct” answer. Our analytical approach takes into account the potential for disturbance to occur to dens not discovered with AIR.

Comment (126): One commenter states the FWS should more clearly explain how it factored assumptions regarding increased den detection from multiple surveys into the predictive denning model.

Our Response: The FWS explains this in the preamble text and provides its analytical code showing how this is done. If a den is not detected with a single AIR, it is available to be detected with a subsequent AIR. For each unique FLIR survey, a new AIR detection probability is obtained from the distribution that was derived from the three AIR studies we draw from to inform our analysis. Then, based on this random detection probability, a den is either detected with the updated probability or not.

Comment (127): One commenter stated the authors in Woodruff et al. (2022) appear to have not actually measured the snow depth of the den covers at the time that the FLIR surveys were conducted. They state this calls into question the study's conclusion regarding snow depth and den detection.

Our Response: As with any scientific study, there are limitations to what can be accomplished. We did measure snow depth at the time of den creation, but did not measure it after that because we didn't want to create any tracks that would serve as a cue to surveyors that a den was located there. Additionally, information on snow depth related to detection with AIR came from the dens after family groups had emerged. Therefore, even those studies didn't measure snow depth at the time of AIR surveys. Regardless, the fact that we measured it at the time of their creation, and that any substantial snowfall/

drifting snow that would change their depth would be similarly (or at least randomly) applied across artificial dens. So, there would still be variation in snow depth between dens that would have emerged as an explanatory variable if it had in fact explained much of the variation in detection.

Comment (128): One commenter stated the FWS should not treat all maternal polar bear dens as detectable by AIR in the predictive modeling efforts. They further state that the inclusion of results from Wilson and Durner in their average of efficacy rates fails to consider the initial intention of the study, which was to determine the upper limits of den detection.

Our Response: The scientific literature does not provide specific metrics identifying how different features of a den affect its detection. For example, there is no information on how the local terrain affects detection. Because the AIR estimates are used to inform how likely dens (overall) are detected with AIR, we used the average detection probability across artificial dens so that it would be representative across the unknown features of simulated (and actual) dens across the landscape. The commenter is also incorrect that the goal of the study was to estimate the upper limits of detection. It was intended to estimate the mean detection probability.

Comment (129): One commenter states that the FWS rejected a mitigation measure that would have required optimal conditions for operators to conduct AIR surveys. The commenter further states that the FWS does not provide specifics on weather requirements for AIR surveys.

Our Response: Appropriate weather conditions for AIR surveys are already incorporated into the Request. We further discuss why stricter environmental requirements are not practicable in the section of the proposed ITR discussing our least practicable adverse impact determination.

Comment (130): One commenter stated that any mitigative benefit from vehicle-mounted or handheld FLIR surveys is negated by the potential for disturbance of nearby dens prior to their detection by such methods.

Our Response: The FWS views the addition of vehicle-mounted or handheld FLIR as a valuable mitigation measure, but also does not assume any increase in detection in the den disturbance model as a result. This is because we do not have a good understanding of how effective they are for detecting dens, aside from knowing

that they are less effective than aerial FLIR. The potential for a den to be disturbed prior to its detection via these means is accounted for in our model results.

Comment (131): One commenter said due to the low effectiveness of AIR surveys, it is reasonably certain that dens will not be detected. They also state that the FWS should not assume in their analysis that a one mile mitigative buffer is maintained around dens.

Our Response: The FWS has worked in close coordination with AOGA and LOA holders for the past 5 years of the 2021–2026 ITR. We have provided tertiary review for hundreds of hours of AIR footage and worked together to identify and mitigate potential impacts around putative dens. In that time, putative dens have been identified, mitigation measures (such as re-routing ice roads) have been put in place, and family groups have emerged. We have worked with LOA holders to carefully document bear behavior during that time. While some dens were discovered post emergence that did not appear in survey that is to be accounted for in our analysis. In the den simulation component of our predictive denning model, 181,746 simulated dens were detected out of 301,914 simulated spatially exposed dens, implying about a 60 percent rate of detection overall. This includes disturbed dens that were seen by AIR after they were potentially exposed (e.g. perhaps missed on first AIR but seen on subsequent AIR after exposure could have begun: 22,132 disturbed during establishment, 2,481 disturbed during early denning, including 395 dens that were both). If we subtract these “seen but temporally missed” dens the efficacy is reduced to 52.2 percent of spatially exposed dens were able to be mitigated due to AIR detection. It is clear that this mitigation measure is effective at identifying a portion of dens and helping FWS and LOA holders mitigate potential impacts to family groups.

Comment (132): The requester states that FWS should not discuss the uncertainty associated with the potential impacts from the specified activities because they feel there is not substantial uncertainty. They also state because human-caused mortality has not been observed in the ITR area it cannot be a potential significant effect to the SBS population.

Our Response: The FWS has detailed in the proposed ITR both the reasons we believe uncertainty may exist and how we have addressed that uncertainty quantitatively. We do not feel this justification is misplaced. We did not come to the conclusion that potential

human-caused cub mortality is anticipated, however we feel it is necessary to speak to the possibility of its occurrence when generating a thorough negligible impact finding.

Comment (133): The requester stated the FWS should explain why two AIR surveys included in the Request and used to run FWS’s predictive modeling are not sufficient and a 3rd survey is warranted.

Response: As explained in the preamble to this ITR, the FWS has determined that a third AIR survey is not required under the least practicable adverse impact standard.

Comment (134): The requester has suggested removal of certain language concerning appropriate environmental conditions for AIR surveys of maternal polar bear dens, stating AIR surveys have successfully identified dens in blowing snow and other forms of precipitation.

Our Response: The language has been retained because it helps promote successful detection of polar bear dens via AIR surveys.

Comment (135): The requester stated the FWS did not produce evidence that unobserved takes are occurring, such as footprints, carcasses, hair, or blood or other indications that a bear was present and disturbed by Industry activity but not observed and recorded. And even if that evidence did exist, the requester states it would not be sufficient to ascertain whether the estimates of potential unobserved take were accurate.

Our Response: The vast majority of polar bear take estimated via FWS’s predictive modelling is via Level B harassment, which occurs whenever “an act of pursuit, torment, or annoyance has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to migration, breathing, nursing, breeding, or sheltering.” Physical evidence of a disruption in behavioral patterns is inherently limited and/or difficult to observe (as would be the case with hair), though Industry observation reports occasionally acknowledge the presence of polar bear tracks in the vicinity of Industry activities without reporting sighting of a polar bear. We also estimate limited instances of Level A harassment, which entail a potential for injury to a marine mammal, but the nature of these estimated Level A harassments would typically not result in blood on the landscape. As was explained in the proposed ITR, in the event that an estimated Level A harassment leads to survival consequences, those consequences

would likely manifest after the affected bear departs from the observable area. A carcass may or may not be observable in the context of an early den abandonment, but we do not anticipate that scenario to occur from the specified activities.

Comment (136): The requester states that while bears may approach industrial observations unobserved, it is unlikely this happens in a substantial number and less likely that these unobserved bears are harassed. They state this is due to monitoring and mitigation measures.

Our Response: We recognize that oil and gas operators, especially at larger facilities, conduct significant monitoring and therefore see many of the bears that interact with their facilities. And mitigation measures certainly lead to reductions in harassment of bears. However, that does not necessarily mean that because of this, the presence of unobserved bears near Industry activities must be infrequent, or that it is unlikely that unobserved bears are harassed.

Comment (137): The requester states that polar bears are disturbed at closer distances than the FWS impact area, and therefore this increases the likelihood that disturbance is observed.

Our Response: The FWS agrees that, on average, there is a higher likelihood of a bear being disturbed the closer the source of disturbance is to the bear. However, numerous case studies show that human activity can disturb polar bears within distances considered by our modeling, and we account for this possibility. Additionally, the data the commenter is referring to only reflect the “closest” activity that could potentially cause disturbance, but does not account for other activities that were also present at greater distances that could cause disturbance too.

Comment (138): One commenter, referencing a previous opinion by Dr. Whiteman, states that in Woodruff et al. (2022), Data Subset 1 was the most similar data subset to industry AIR surveys and describes a den detection probability of 0.15 with confidence intervals from 0.08 to 0.23. The commenter then states that these specific data were not used in the proposed ITR.

Our Response: The FWS chose to use subset 2 of Woodruff et al. (2022) because industrial surveys are to occur during good weather conditions and if during post-hoc review it was determined that survey conditions were not adequate, a repeat survey of that region is done. So, we viewed this as the most representative metric to use based on how Industry now conducts their

AIR surveys. Additionally, because it was unclear which of the three AIR metrics was most appropriate to use, we chose the middle estimate to guard against using a metric that is biased low or high.

Comment (139): One commenter stated that the standards of “small numbers” and “negligible impact” were vague and lacked clearly defined thresholds, risking interpretation that would allow more harm than intended over time and across multiple projects. Other commenters recommended FWS define clear, enforceable science-based thresholds for what constitutes “small numbers” and “negligible impact” or otherwise address stricter limits for allowable take.

Our Response: The FWS is required to process requests under the MMPA using the terms specific to the MMPA itself, such as negligible impact, small numbers, incidental take, harassment, etc. We have provided definitions for these terms in the proposed ITR. We have provided clear descriptions of the potential impacts to polar bears and walrus. It is difficult to define a threshold for small numbers or negligible impact (e.g., no more than X percent or no more than Y takes) because these values would fluctuate with stock conditions. Therefore, we have explained our determinations in the context of stock conditions as opposed to a pre-determined finite number.

Comment (140): One commenter stated the FWS negligible impact analysis included activities that have the potential to cause harm but that have not been documented to always cause harm. They stated these activities are not reasonably expected to cause harm at the rates FWS projected.

Our Response: The comment appears to note that the types of Level A harassment estimated by FWS do not always result in harm to the affected polar bear. This notion is correct in the sense that while early den emergence and early den site departure could potentially result in survival consequences for affected cubs, the probability of that result is rather low in each instance. We stand by our categorization of human-caused early den emergences and early den site departures as indicative of Level A harassment, given the statutory definition of that term. After estimating the anticipated frequency of Level A harassment, the FWS in its negligible impact analysis assessing the extent to which the estimated Level A harassments would affect the SBS stock of polar bears. The rather low probability of survival consequences

associated with each instance of estimated Level A harassment is appropriately considered in the negligible impact analysis.

Comment (141): Commenters stated that a 45 percent probability of lethal take is substantial, and it is arbitrary for the FWS to consider this probability to be low enough to ignore in reaching its conclusions. Another commenter stated FWS cannot lawfully read its regulatory language defining “negligible impact” to require that the likelihood of harm be more likely than not when the regulation prohibits reasonably likely impacts.

Our Response: The model is complex, so there are many ways to describe the results. Specific model outputs must be considered within the larger context. For example, here, the estimated median number of lethal takes over the relevant 5-year period is 0, and as explained in the proposed ITR, “[t]he existing dataset contains no definitive evidence that an industry activity caused a maternal den abandonment that in turn resulted in cub mortality.” An additional way to explain our model results is that of the 2,928,877 simulated dens, 2,923,279, or 99.8 percent, were simulated to not have lethal take via den abandonment. Model outputs are also not the only source of information providing support for our larger conclusions. For instance, the analysis also acknowledges the absence of observed den abandonment and resulting lethal take over the multi-decadal history of similar activities, and our inability to quantify within its modeling the mitigative benefit of certain applicant-committed practices. On balance, the best available scientific evidence supports our finding that lethal take via den abandonment is not anticipated to result from the specified activities.

Comment (142): The requester states the FWS should explain why the result of FWS’s analysis of incidental take preceding intentional take is different than those in the Request. They cite the FWS inclusion of records that indicate the potential for incidental take preceding intentional take as a distinct difference between the approaches.

Our Response: The requester is correct that the likely source of differences between requester’s estimates of incidental take preceding intentional take and those created by FWS is our inclusion of records that indicate the potential for incidental take preceding intentional take. We felt this was appropriate given the broad definition of Level B harassment in the MMPA (i.e., an act of pursuit, torment, or annoyance that has the potential to

disturb a marine mammal or marine mammal stock in the wild).

Comment (143): The requester stated the FWS rationale for including predictive modeling estimates is not in line with the MMPA, which they state does not require certainty, or even require FWS to attempt to address uncertainty.

Our Response: The FWS does not characterize its predictive modeling estimates as certain to occur. Our approach for dealing with uncertainties about the extent of future impacts is explained in the preamble.

Comment (144): Several commenters state the FWS has failed to meet the requirements of the MMPA and APA due to an underestimate of potential Level A harassment or lethal take, failure to incorporate key factors into predictive take estimates, and lack of meaningful quantification, and an unlawful and arbitrary failure to evaluate its own modeling using the requirements of the MMPA and the FWS MMPA implementing regulations. The commenters conclude that for these reasons, the FWS cannot lawfully authorize an ITR, and should reject AOGA’s petition. They state if changes are made, a revised proposed ITR should be made available for an additional public comment period.

Our Response: We disagree. We have carefully considered the potential impacts to polar bears and Pacific walrus and presented well-supported small numbers and negligible impact determinations.

Comment (145): One commenter stated that the FWS did not analyze their estimate for Level A harassment of denning polar bear cubs in their negligible impact determination.

Our Response: As we have stated in our negligible impact determinations, we do not anticipate loss of a cub through den abandonment. Further, the litters that experience Level A take over a 5-year period are anticipated to have an average 12.6 percent decrease in survival probability. This change in survival probability is not anticipated to have more than a negligible impact on annual rates of recruitment for the SBS stock. The stock exhibits marked natural interannual variation in cub survival rates (Bromaghin et al. 2021) which are much higher than the anticipated effect of potential disturbance. Even with this variation, the most recent science has supported that the population has stabilized (Bromaghin et al. 2021).

Comment (146): One commenter stated that disturbance may be non-negligible because polar bears remain threatened under the ESA due to ongoing sea ice loss and because data on

the global population of polar bears are incomplete.

Our Response: The FWS agrees that the primary threat that led to polar bears being listed as threatened under the ESA are still present. The FWS in its analytical methods, however, does use best available scientific evidence to account for changing patterns (*i.e.*, denning, land use, abundance) in its assessment of negligible impact.

Comment (147): One commenter stated that the FWS artificially distributed the anticipated four Level A takes across 5 years and ignored the possibility of clustered takes within a single denning season, which minimized recognition of threats facing polar bears.

Our Response: The FWS does not artificially distribute the anticipated Level A takes across the 5 years. Those estimates are derived from our analytical methods that incorporate annual variation in take based on polar bear ecology and the specified activities in the Request. By taking into account annual variability in activities and polar bear ecology, our approach already allows for clustered takes within a single denning season.

Comment (148): One commenter stated that the FWS did not explain how a reduction in cub litter survival meets the MMPA's definitions for Level A harassment and Level B harassment and how this reduction in cub litter survival would not be likely to have any long-term impacts on fitness.

Our Response: The FWS's methodologies assign Level A harassment to simulated events where human-caused disturbances cause early den emergence, on the basis that such events entail a potential to injure affected cubs. Early den emergence has been shown to reduce litter survival a short period (approximately < 100 days) in spring. We do not anticipate any longer-term effects to surviving cubs, for two reasons. First, there are no data in the scientific literature to support that assumption otherwise we would have included it. Second, because the impacts of early emergence are thought mostly to contribute to the cubs not being quite ready for life outside/away from the den, it is anticipated that these would be short-term impacts until the cubs grow large enough to have no problems keeping up with their mothers or thermoregulating. Thus, even when accounting for a potential 12.6 percent decrease in litter survival rates, it follows that the number of Level A harassments estimated by FWS's methodologies does not represent, and significantly exceeds, the number of

cubs anticipated to experience long-term consequences.

Comment (149): One commenter recommends that the FWS address whether the potential harm of authorizing multiple incidental takes of polar bears within and across years and a 45 percent probability of mortality of a bear from the SBS stock is consistent with the legislative language cited in the proposed ITR advising that the probability of occurrence of impacts must be balanced with the potential severity of harm to the species or stock when determining negligible impact. The commenter further recommends that in its negligible impact analysis, the FWS should also explain how authorizing the proposed Level A and Level B harassments and a 45 percent probability of one or more cub mortalities is consistent with PBR, optimum sustainable population (OSP) and the other applicable goals and standards of the MMPA.

Our Response: We do not expect lethal take as a result of the specified activities. We do not expect the anticipated harassment to contribute to biological removal, thus it will not prevent the population from reaching OSP. We have further demonstrated in our negligible impact determinations that our predictive denning analysis indicates the Level A harassment estimated to occur during the proposed ITR period will result in no more than a negligible shift the rate of litter survival for SBS land-based dens.

Comment (150): One commenter cited Wilson and Durner (2020) when stating any lethal take from the SBS polar bear stock would prevent the FWS from meeting its requirements under the MMPA to make a "negligible" impacts determination. Further, the commenter, again citing Wilson and Durner (2020) stated that all dens must remain undisturbed by oil and gas activities during the denning period to meet MMPA requirements. The commenter then states that the FWS must carefully consider its finding regarding den disturbance and lethal take in relation to the attainment of the optimum sustainable population for the stock. The commenter believes the FWS has not properly considered the potential for lethal take, which renders its proposed ITR arbitrary.

Our Response: The conclusions of Wilson and Durner (2020) were drawn for the hypothetical seismic survey in the ANWR (not included in the geographic area of this ITR). While the FWS draws on the core methodology presented in Wilson and Durner in the analysis here, the conclusions of the prior study cannot be transposed here,

where the specified activities are in a different location and predominately of a different nature. Also, in the 6 years since that 2020 study, we have additional information to help us better understand the potential differential impact of Level A harassment on polar bear litter survival probabilities and corresponding impacts to the SBS stock.

Comment (151): One commenter stated that the FWS mixes likely impacts on individual polar bears and impacts on the SBS stock of polar bears from the specified activities. They indicated that the FWS's evaluation of Level A harassment and mortality to denning cubs and the FWS's statement about not anticipating lethal take during the specified activities was an example of the mixing of impacts on individual polar bears versus impacts on the SBS stock of polar bears.

Our Response: The FWS has not mixed impacts, rather we have presented both potential outcomes. However, in an effort to present both the potential impacts from lethal take (which is not anticipated) alongside the potential impacts of Level A take, we have presented a revised figure 3 in the final ITR. This figure accounts for both potential impacts when examining the estimated changes in litter survival probability for SBS land-based dens over the 5-year period of the ITR.

Comment (152): One commenter stated that compounding effects of Arctic warming should be fully incorporated in the FWS's negligible impact determination since these factors "multiply the vulnerability" of polar bears and walruses. These effects include declines in sea ice, increased land-based polar bear denning near Industry, declines in Beaufort Sea polar bear survival and abundance, and changes in the prey base for both polar bears and walruses.

Our Response: The FWS does consider the effects of climate change on polar bears in its assessments. We consider the more current science on the abundance of the SBS stock which drives how many bears are on shore and denning each year. Further, we consider factors that have been shown to affect polar bears directly as a result of changing sea ice patterns (*i.e.*, increased denning on shore and increased use of land during the summer). Additionally, the denning phenology data we uses in our analyses is derived from empirical data that includes data reflecting how climate change is impacting the SBS stock.

Comment (153): One commenter stated that regulatory compliance under the proposed ITR should not rely on whether impacts are below a static

threshold that is considered to be “negligible” but instead should require demonstration that all reasonable and available measures to further reduce disturbance have been implemented.

Our Response: The proposed ITR addresses requirements for incidental take authorizations that are specified in the MMPA. These include a requirement that the total of such taking will have a negligible impact on species or stock, which is defined in 50 CFR 18.27 as an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival. The MMPA also requires that ITRs prescribe means of effecting the least practicable adverse impact on species or stocks, which we have done in this rule.

Comment (154): One commenter stated that the requested authorization would allow industrial activities across extensive areas of marine and coastal habitat in the Beaufort Sea region and questioned the FWS determination that disturbance resulting from the specified activities would be negligible in light of the large spatial and temporal scale of the activities.

Our Response: ITRs do not authorize the specified activities; they only allow for the incidental take that results from those activities. We considered the spatio-temporal footprint all of these operations in our analytical approach and were still able to reach our conclusions.

Comment (155): One commenter stated the proposed ITR’s negligible impact finding fails to properly account for cumulative effects over the full 5-year period, as required by the MMPA and as the Ninth Circuit recently ruled in challenges to the prior Beaufort Sea ITRs. They stated that year-by-year assessments that downplay or re-categorize injurious takes do not satisfy the statute’s plain language requiring evaluation of the total authorized take.

Our Response: The FWS has addressed total estimated numbers of Level A harassment and the probability of lethal take aggregated across the 5-year period in its negligible impact determination.

Comment (156): One commenter stated that no lethal take could be considered negligible and allowable under the MMPA.

Our Response: The FWS does not anticipate lethal take of polar bears as a result of the specified activities.

Comment (157): Two commenters stated the FWS discussion about compensatory mortality is unsupported and misleading because Regehr et al.

(2017) found in some cases, even a very small decline in the number of yearlings per female (*i.e.*, a decline that could be driven by human-caused mortalities) could change a population trajectory, and that the impacts of such mortalities ranged from negligible to being capable of contributing to population collapse. They stated that the FWS has not met its burden to substantiate with evidence any assumption that cub deaths from the proposed activities would be compensatory rather additive, particularly since current SBS polar bear population estimates include substantial uncertainty.

Our Response: Scientific information concerning the rather limited impact that natural cub mortalities have on the SBS stock is presented to contextualize the extent of impacts from any human-caused mortality.

Regehr et al. (2017) noted that polar bears are capable of stronger compensation for human-caused removals than were previously expected. Additive and compensatory mortality are foundational concepts in wildlife management because they determine how different sources of death affect overall population dynamics. Compensatory mortality is tightly linked to density dependence, because populations experiencing density-dependent regulation can replace some mortality through increased survival or reproduction of the remaining individuals. The SBS stock has likely stabilized since its decline early in the 2000s (Bromaghin et al. 2021), indicating that the stock has likely reached a density in line with its current carrying capacity.

Regehr et al. (2017) found that some loss of polar bears from a stock could be compensated for and mitigate the risk of population declines caused by habitat loss if certain conditions are met. This could either be that climate change affects polar bear stocks primarily through density dependent mechanisms or that management intervals are short enough to respond to potential density-independent reductions in productivity. Evidence for this has been provided for the Western Hudson Bay subpopulation (Lunn et al. 2016) which has exhibited similar declines as the SBS. We believe the SBS fits a similar pattern as studies have shown evidence of reduced prey availability leading to increased periods of fasting (*i.e.*, fewer prey available to support historic numbers of bears; Rode et al. 2018 Global Change Biology). The other condition that Regehr et al. (2017) noted was having management intervals that are short enough to respond to potentially density-independent reductions (*e.g.*, significant oil spill) in

their maximum net productivity. This condition is also met because the applicant is required to report all forms of take and polar bear sightings as they occur and the FWS can readily respond to any large changes in the stock. So, the management interval is sufficiently short (*i.e.*, daily) to allow this. We do not consider any potential cub deaths (which are not anticipated) to be additive mortality, but rather compensatory mortality.

Our view that the loss of a cub is less impactful to population dynamics than other age classes is supported by the work of Regehr et al. (2017) that found adult females with yearlings had reproductive values more than twice as large as a 2-year old female because of the need to survive until adulthood before they can reproduce. Thus, a cub-of-the-year’s reproductive value would be even less given the lower survival rates expected for cubs (Bromaghin et al. 2021) and the time required until they reach reproductive age (4-years old at a minimum).

Comment (158): One commenter stated that the FWS did not provide data to support their conclusion about implementation of mitigation measures will likely reduce impacts on denning polar bears.

Our Response: We disagree. One of the biggest mitigation measures is the use of FLIR to detect dens so they can be avoided. We account for these detections in our analyses, and thus provide data on how many dens would be detected by FLIR and thus avoid being disturbed (or being disturbed further) if exposed to disturbance causing agents before detected by FLIR. FWS staff also have firsthand experience with the successful implementation of mitigation requirements that arise where a known or suspected den is discovered in the vicinity of Industry activities. These events are reflected in case studies incorporated into FWS’s analysis.

Comment (159): One commenter stated that the FWS did not explain whether the FWS’s predictive model estimates or estimates described in AOGA’s Request were supported by the best available scientific information.

Our Response: We made it clear in our small numbers and negligible impacts determinations that we considered both the results from our predictive modeling estimates and the estimates provided in AOGA’s request.

Comment (160): One commenter stated the proposed ITR is flawed in justifying the lethal take of cubs by focusing on the survival of reproductive females when cub survival has a high

correlation to long term population abundance.

Our Response: The FWS does not anticipate lethal take of polar bears as a result of the specified activities and has accounted for the possibility of reduced cub survival in its negligible impact analysis.

Comment (161): One commenter stated no lethal take of polar bears could be considered negligible in light of projected population declines, as any lethal take would accelerate extinction.

Our Response: The FWS does not anticipate lethal take of polar bears as a result of the specified activities and has accounted for the possibility of reduced cub survival in its negligible impact analysis.

Comment (162): Some commenters stated FWS should consider the age, sex, and reproductive viability of polar bears and walrus that will be taken in its negligible impact analysis since impacts on certain age or sex classes are more likely to affect the population. One commenter stated that mortality of even a single reproductive female polar bear risks compounding population decline disproportionately and should not be deemed biologically insignificant. Another commenter stated death or injury of a bull walrus would have a disproportionate effect on the genetic makeup of the next generation.

Our Response: We do not anticipate more than Level B harassment of sows with cubs of the year, even when the cubs are estimated to experience Level A harassment. A comparison of how male and female cubs could influence future recruitment is provided in the negligible impact analysis. Regarding potential walrus impacts, we disagree the death or injury of a bull would have a disproportionate effect on the genetic makeup of the population, particularly due to the panmictic nature of the population and large population size. However, we do not anticipate more than Level B harassment of a very small number of Pacific walrus that are outside their typical home range.

Comment (163): One commenter suggests that just because a number of takes does not exceed the PBR [potential biological removal], it does not automatically provide a rational basis for concluding that the impact on the species is no more than negligible, and FWS must also demonstrate that the taking comports with achieving a sustainable population.

Our Response: The rule explains how FWS reached its negligible impact finding. We did not categorically assume that takes that do not exceed PBR must be no more than negligible.

Comment (164): One commenter states the FWS qualitative assessments of negligible impact are flawed because they discuss the large number of human-polar bear interactions that are not anticipated to result in harassment and the large number of SBS maternal polar bear dens that are not anticipated to be exposed to industrial activity.

Our Response: The FWS has presented a multi-faceted discussion about the potential impacts to the population from the specified activities. The limited impacts of Level B harassment, and the small proportion of SBS polar bear dens that could be disturbed by the specified activities, are relevant aspects of that larger discussion.

Comment (165): One commenter states that the FWS did not consider the potential impacts to polar bears that experience more than one take by Level B harassment.

Our Response: While the FWS does state in the proposed ITR that repeated Level B harassment may rise to the threshold of Level A harassment, we do not anticipate it as a result to SBS polar bears from these specified activities. We anticipate Level B harassment will be limited to short-term, temporary behavioral disruptions. This assumption is based on records from our LOA database, where over more than 20 years we have not documented evidence of repeated Level B harassment events leading to potential injury.

Comment (166): One commenter states FWS has already accounted for the benefit of AIR surveys and buffers around putative dens in their quantitative take estimates, and therefore they cannot reasonably rely on them in qualitative negligible impact analysis.

Our Response: The commenter seems to be mistaken about the inclusion of mitigation measures in our analyses. The FWS is not double counting mitigation measures, however there are some mitigation measures whose efficacy could not be quantified (e.g., staff training, vehicle and hand mounted FLIR). In those instances, we have discussed the benefits of the measures qualitatively.

Comment (167): One commenter states that Congress intended that FWS consider the severity of the potential impact on the population when evaluating what risk would be low enough to reach a negligible impact finding, and that the FWS balance the probability of occurrence with the potential severity of harm. The commenter further states that the FWS did not analyze the severity of the impact from losing one or more cubs

given the decline of the SBS population, nor balance this probability with the severity of the impact. Citing the opinion of Dr. Steven Amstrup that any additional injury or loss of a cub is a significant impact to the population due to the already reduced survival of SBS cubs, the commenter suggests that the FWS must better explain how the potential injury or loss of a cub could be considered negligible.

Our Response: As the FWS has stated in our negligible impact determinations, we do not anticipate loss of a cub through den abandonment. Further, the litters that experience Level A take over a 5-year period are anticipated to have an average 12.6 percent decrease in survival probability. This change in survival probability is not anticipated to have more than a negligible impact on annual rates of recruitment for the SBS stock. The stock exhibits marked natural interannual variation in cub survival rates (Bromaghin et al. 2021) which are much higher than the anticipated effect of potential disturbance. Even with this variation, the most recent science has supported that the population has stabilized (Bromaghin et al. 2021), while also accommodating ongoing subsistence harvest. The FWS's negligible impact analysis discusses the possibility of cub mortality and the extent to which it would affect the SBS stock based on a variety of relevant biological factors.

Comment (168): One commenter stated that the FWS is using outdated population data to inform its analyses, noting that the data used to inform the current SBS stock size was collected from 2001–2016. The commenter believes that these data are not sufficient to estimate a current population [stock] size and cannot be used to inform the FWS's negligible impacts determination.

Our Response: The FWS uses the best available science on the current size of the SBS stock. It is not uncommon for updated abundance estimates for polar bear stocks to occur at intervals >10 years. The commenter is incorrect that the SBS stock is in rapid decline. While it's true that the stock did suffer a significant decline in the early 2000s, Bromaghin et al. (2021) found that that decline had largely leveled off and the subpopulation's abundance had likely stabilized. We are not aware of any more recent research that has shown that the subpopulation's decline has likely begun again.

Comment (169): Commenters stated other forms of anthropogenic take must be factored into the baseline for the species in considering whether take will have a negligible impact. One

commenter stated the proposed ITR does not connect essential information on the annual number of human-caused mortalities for SBS polar bears (e.g., polar bear harvest under the Iñupiat-Inuvialuit Agreement) to its analysis of impacts on the SBS stock from oil and gas activities, including impacts to the population and to subsistence uses. They stated the FWS's failure to discuss whether take under the proposed ITR would have a negligible impact (i.e., an impact that is consistent with the stock reaching or maintaining its optimal sustainable population) in light of ongoing take and other mortality events renders the proposed ITR arbitrary and capricious.

Our Response: We have considered impacts to SBS polar bears in light of the environmental baseline, which includes ongoing subsistence harvest. The analysis draws heavily from the stock assessment report for SBS polar bears. This report includes descriptions of the stock and its range, a minimum population estimate, net productivity rate, and current population trend, an estimate of the potential biological removal level, an estimate of human-caused mortality and serious injury, and a categorization of the status of the stock. Through these stock assessment reports, we analyze the baseline impacts to SBS polar bears. We have taken this information into account in small numbers and negligible impact determinations. The most recent draft polar bear stock assessment report is included by reference into the proposed ITR.

Comment (170): One commenter stated that FWS's estimate of 20 walrus being taken per year underrepresents walrus' sensitivity to noise disturbance and that FWS should further assess the extent of harm to Pacific walrus in the Beaufort Sea and account for potential cumulative effects from repeated disturbances.

Our Response: Given the scarcity of walrus in the ITR area and the mitigation measures incorporated into the Request, it is highly unlikely that the specified activities could take more than 20 walrus per year.

Comment (171): One commenter stated that there could be a good opportunity to conduct research in association with the proposed ITR on how repeated takings affect overall health of polar bears and Pacific walrus.

Our Response: Whereas we agree with the commenter that these types of data would be valuable to informing future incidental take authorizations, research to obtain them is outside of the scope of our authorization. We also agree with

the commenter that these type of data are not yet available for polar bears or walrus and would thus not be possible to include in our analyses because we don't know if this effect exists, and if it does, what the magnitude of the effect would be.

Comment (172): One commenter states that the FWS does not explain why it used the estimate of 907 polar bears in the SBS stock when the FWS's draft SAR changes that estimate to 819 polar bears in the SBS stock.

Our Response: The FWS does explain its presentation of both 907 and 819 estimates. The draft stock assessment report has not been finalized, thus it would be pre-decisional to use draft numbers for our formal assessment of small numbers. However, we provided the small numbers estimates with respect to 819 as well, in the event the SAR are approved during the ITR period, so that the public may have the information.

Comment (173): One commenter states the FWS has failed to consider whether the total take being authorized over a 5-year period (422 takes by Level B harassment of 199 individual polar bears) can reasonably be considered small numbers.

Our Response: The numbers reported represent a reduction of repeated bears within a year, but we do not have any data to estimate the rate of repeats between years, so the 5-year totals reflected in our estimates are simply derived by adding up the total number of individuals for each year without regard to any of them being potential repeats. The probability that none of these are repeats is extremely low. If we assume 49 individuals per year, the probability of choosing 49 new individuals every year for 5 years is 0.00000000001 ($1 \text{ e}-11$). This also supposes that the bears can come randomly from the entire SBS stock of 819 bears. If we presume that only 75 percent (614) of the bears visit land, that probability reduces to $4.8\text{e}-16$, 50 percent (410) even further to $4.8\text{e}-26$.

Comment (174): One commenter stated they are concerned the structure of FWS's small numbers determinations are vulnerable and warrant consideration due to the *Loper Bright v. Raimondo*, 144 S. Ct. 2244 (2024) decision that ended Chevron deference.

Our Response: The FWS's approach to evaluating small numbers is consistent with the best reading of the MMPA.

Comment (175): Commenters stated that by not considering the age and sex of polar bears that may be taken as part of its small numbers determination, the proposed ITR does not adequately

protect the genetic integrity of the SBS polar bear population.

Our Response: Genetic variation of among polar bear stocks, globally, is very low because of the level of gene flow across the Arctic and the general lack of geographic barriers to movement. Thus, concerns about genetic diversity are not significant.

Comment (176): Commenters stated that it is against best scientific practice for FWS reach a small numbers determination while there is a lack of reliable population data for SBS bears within the past decade.

Our Response: The FWS uses the best available scientific evidence to inform its small numbers estimate. While it is true that the most recent polar bear population estimate for the SBS stock used data through 2015, it is not uncommon to have decade or more time lags between polar bear stock estimates given the challenges of studying them. Further, while not specific to the SBS subpopulation, Regehr et al. (2021) found that 10+ year intervals between abundance estimates can be reasonable and not lead to mismanagement of populations. The most recent information from Bromaghin et al. (2021) found evidence that the previously-documented population decline of the SBS had likely stabilized so we are most likely not in a situation where the population has continued to decline since 2010. There is currently an effort led by non-FWS employees to update the SBS abundance estimate with more recent data and that is anticipated to be available by late 2026.

Comment (177): Commenters stated that FWS should consider the impacts of harassment of 20 walrus relative to the total of 49 Pacific walrus that have been observed in the South Beaufort Sea between 1995 and 2023 (40 percent of animals), rather than relative to the full Pacific walrus population stock (0.0008 percent of animals), since the Beaufort Sea represents a specific portion of the walrus' range and effects are experienced by individuals present in the local area.

Our Response: The FWS's small numbers determinations evaluate if the number of marine mammals estimated to be incidentally taken is small relative to the size of the species or stock. Pacific walrus have not been found to have population substructuring, and are one large, panmictic population. As is stated in the supplemental information for the proposed ITR, the walrus found in the Beaufort Sea are extralimital, not a unique subpopulation.

Comment (178): Commenters stated that under 16 U.S.C. 1371(a)(5)(A),

small numbers must be relative to both population size and biological significance, and must account for underlying population trend and status. For a threatened, declining marine mammal population already at less than half its historic abundance, such as SBS polar bears, the killing of four cubs or even one maternal individual, and harassing up to 5.7 percent of the entire population in any single year, cannot be considered small.

Our Response: “Small numbers” is not defined in the MMPA, as the commenter suggests. As we stated in the proposed ITR, “small numbers” is defined in 50 CFR 18.27. However, we do not rely on that definition as it conflates “small numbers” with “negligible impact.” Instead, for our small numbers determination, we considered estimates of the likely number of annual takes of polar bears and determined that the estimates were small relative to the size of the SBS stock.

Comment (179): One commenter states the FWS should reassess their small numbers analysis of the Request’s estimate of Level B harassment to include both the estimate of 24 bears on the surface and 3 denning bears.

Our Response: Thank you for the suggestion. We have revised the text in the ITR.

Comment (180): Commenters stated that FWS’s estimates of the percentage of populations impacted are uncertain because estimates of total population size are changing.

Our Response: The justification for the proposed change in abundance estimate was articulated in the Draft SBS Stock Assessment Report. It had nothing to do with the size being uncertain, but rather accounting for a shift in the SBS boundary which reduced the overall area represented by the SBS stock.

Comment (181): One commenter believes it is irrelevant to consider the size of the specified geographical region in relation to the entire range of polar bears when the FWS makes its “small numbers” determination.

Our Response: The FWS qualitative discussion of the size of the specified geographical area in relation to the entire range of SBS polar bears is presented in addition to a quantified estimate of potential take from both AOGAs Request and FWS predictive modeling. We disagree that the discussion is irrelevant, as it helps speak to the proportion of SBS polar bears anticipated to be taken. We also provide additional discussion in the ITR about the number of estimated takes and the size of the SBS stock, supporting the

finding that no more than a small number of individuals are estimated to be harassed.

Comment (182): One commenter states that the FWS is conflating its “small numbers” finding with its “negligible impacts” finding.

Our Response: As we stated in the proposed ITR, while the term “small numbers” is defined in 50 CFR 18.27, we do not rely on that definition as it conflates “small numbers” with “negligible impact.” We recognize “small numbers” and “negligible impact” as two separate and distinct requirements for promulgating ITRs under the MMPA (see *Ctr. for Biological Diversity v. Salazar*, 695 F.3d 893, 904 (9th Cir. 2012)). Instead, for our small numbers determination, we evaluate if the number of marine mammals estimated to be incidentally taken is small relative to the size of the species or stock.

Comment (183): Some commenters stated spatial and temporal restrictions on activities to avoid denning habitat and sensitive denning timing could protect polar bears while also avoiding limitations for projects or briefly limiting project timelines.

Our Response: Spatial restrictions on activities would not be practicable in the existing oil fields because the infrastructure is already established and operating. It would not be possible to shut down those operations annually to allow denning to occur without disturbance. Due to the large amount of potential denning habitat in northern Alaska, spatial restrictions would lead to nearly the entire operations within this application not being possible until after denning, which would not be practicable. Activities outside of the existing oil field can include seismic surveys, exploration drilling, and ice roads. Seismic surveys must necessarily be conducted in certain areas in order to acquire sufficient data to meet project objectives. Exploration drilling must necessarily be conducted within the vicinity of the target reservoir. And ice roads typically cannot be routed to avoid all areas in or near denning habitat, which is prevalent in the ITR area. Meanwhile, environmental and regulatory constraints (such as a limited season for tundra travel) dictate that these activities can only be conducted during seasonal timeframes that largely overlap with the denning season. Categorically imposing spatial and temporal restrictions at the ITR phase would make specified activities unduly burdensome or impossible to undertake and complete. That said, project-specific spatial or temporal restrictions may be imposed, if appropriate, at the LOA

phase, when operational plans and specific locations are provided.

Comment (184): One commenter states that the FWS should not rely on mitigation measures to reach a conclusion that the authorized take would have the least practicable adverse impact without accurately assessing the effectiveness of each mitigation measure.

Our Response: We disagree. We have carefully explained the numerous peer-reviewed studies on AIR efficacy. There are several mitigation measures that the FWS knows are beneficial but their efficacy is variable. These include handheld FLIR surveys and personnel training. While the benefits of these measures cannot be quantified, and are therefore not included in quantitative take estimates, they can be included as measures that can go toward meeting the least practicable adverse impact standard. We have also clearly described why other possible mitigation measures may not be practicable. The mitigation measures incorporated into the Request are similar to those implemented under current incidental take authorization and have proven to be successful in minimizing impacts. To ensure the least practicable adverse impact, we evaluated various additional mitigation strategies and imposed one additional mitigation measure in these ITRs.

Comment (185): Some commenters stated mitigation measures are not analyzed or explained enough with supporting data to show that the proposed ITR meets the “least practicable adverse impact” requirement.

Our Response: We disagree. We have carefully explained the numerous peer-reviewed studies on AIR efficacy. There are several mitigation measures that we know are beneficial but their efficacy is variable. These include handheld FLIR surveys and personnel training. While the benefits of these measures cannot be quantified, and are therefore not included in quantitative take estimates, they can be included as measures that can go toward meeting the least practicable adverse impact standard. We have also clearly described why other possible mitigation measures may not be practicable. The mitigation measures incorporated into the Request are similar to those implemented under current incidental take authorization and have proven to be successful in minimizing impacts. To ensure the least practicable adverse impact, we evaluated various additional mitigation strategies and imposes one additional mitigation measure in these ITRs.

Comment (186): A commenter stated the proposed ITR does not ensure the least practicable adverse impact and comply with the MMPA's protective intent due to its insufficient restrictions on seismic surveys and drilling operations during sensitive periods such as denning and migration, its inadequate monitoring requirements that rely heavily on unreliable visual detection, and a lack of enforceable, real-time shutdown protocols when animals are detected near operations.

Our Response: A mitigation measure preventing seismic exploration during denning season would not be practicable, as it would completely prevent seismic exploration. Polar bears do not migrate, however during the critical period when sows are headed to the sea ice with their cubs, the FWS requires LOA holders to cease activity to provide the family group with an unimpeded path to the sea ice. We have incorporated measures requiring notification and coordination in the event of polar bear injury or death.

Comment (187): A commenter stated that it seems difficult to guarantee impacts will be minimal given the long-term effects of habitat disruption and increased industrial activity. Another commenter questioned whether the least practicable adverse impact standard could be met, given the current ecological conditions in the Arctic and the scientific evidence regarding the vulnerability of polar bears and walrus.

Our Response: We have presented a multifaceted discussion on the potential impacts to polar bears and walrus from the specified activities. This included a discussion of polar bear and walrus habitat use. The proposed ITR area is outside the range of Pacific walrus. The footprint of the specified activities does overlap with polar bear habitat, however large untouched areas of habitat remain. Thus, we feel potential habitat disruption will not prevent the impacts from being negligible.

Comment (188): One commenter asserts that the FWS treats data deficient areas as if the areas are biologically less significant than areas with greater amounts of data.

Our Response: Our predictive modeling is designed to account for areas where there has been little to no human activity and are therefore data deficient. We use relationships derived from data rich areas, such as harassment rates, spatial impact zones, and encounter rates, as well as data from outside sources such as collar data and satellite-derived habitat maps, to make

an informed estimate of the harassment anticipated in newly occupied areas.

Comment (189): One commenter requests that the FWS withdraw or reject the proposed ITR and adopt a more precautionary, science-based approach that ensures enforceable protections for subsistence communities.

Our Response: The FWS's analysis is based on the best available scientific evidence. We do not anticipate the specified activities will overlap with polar bear harvest, because the vast majority of specified activities are located in an active oilfield where hunting is generally prohibited.

Comment (190): A commenter expressed concern about the level of cooperation between the oil and gas industry and Alaska Native communities, stating that without specific rules on what LOA applicants must disclose to potentially affected communities, they may leave out important information. They requested FWS provide specific information on what it will consider to be adequate safeguards in Plans of Cooperation that ensure the least practicable adverse impact on the availability of walrus and polar bears for subsistence use.

Our Response: The requirements for a plan of cooperation are listed in the proposed ITR. The FWS declines to prejudge what project-specific safeguards are adequate prior to considering Alaska Native community input.

Comment (191): One commenter recommended that the rule fully consider interconnected impacts between wildlife disturbance and Indigenous community food security, cultural practices, and long-standing relationships with the environment when evaluating disturbance thresholds and mitigation requirements.

Our Response: For reasons explained in its analysis, FWS does not anticipate any impacts to Indigenous community food security, cultural practices, or long-standing relationships with the environment.

Comment (192): Commenters stated the proposed ITR does not demonstrate sufficiently that no unmitigatable adverse impacts to subsistence will occur, particularly as distributions of animals shift and spatial use between subsistence users and industrial activity increases. One commenter stated that effects from industry-caused shifts in animal migration routes should be considered, and they suggested more analysis on impacts to subsistence should occur at the proposed ITR stage as opposed to at a later stage when Plans of Cooperation are developed. Another commenter stated subsistence impacts

should be evaluated not only in terms of direct displacement, but also in terms of ecological disruption and unpredictability.

Our Response: There is no scientific evidence to suggest shifting distributions of polar bears away from where subsistence harvest occurs. Polar bears are still primarily drawn to subsistence whaling locations each autumn (*i.e.*, Cross Island, Kaktovik) where much of the subsistence harvest of polar bears occurs. The FWS has not noted any changing movement patterns of polar bears along the coast that would indicate their movements have been hindered at the scale of seasonal movements along the coast. Industrial activities have occurred in the region for over 50 years so far and there has been no changes noted in the ability of local communities to harvest polar bears.

Comment (193): One commenter recommended that FWS solicit additional scientific review, local and Indigenous Knowledge, and expertise to refine and validate its assumptions and methodologies to ensure that estimated take levels and potential impacts to polar bears are accurately described and appropriately quantified. The commenter also stated that the FWS's analysis for take is overly precautionary and that an overestimate of potential impacts on polar bears could create an unfounded conflict between industry activities and continued subsistence harvest of marine mammals.

Our Response: The FWS has frequently invited comment and discussion concerning its assumptions and methodologies and looks forward to further opportunities to continue these discussions. We do not view our analysis as overly precautionary and finds that Industry activities do not conflict with continued subsistence harvest of marine mammals.

Comment (194): One commenter stated that the FWS should require the requester to notify any potentially impacted subsistence community rather than just the subsistence communities that the requester identified in their Request.

Our Response: There are limited subsistence communities in the proposed ITR area. The nearby communities of Utqiagvik, Nuiqsit, and Kaktovik are regularly notified of LOA holders' activities and would be notified when appropriate under these ITRs.

Comment (195): One commenter recommended the FWS seek to promote consistency and predictability in the issuance and administration of LOAs since clear and standardized expectations across operators enhance compliance, facilitate planning, and

reduce the administrative burden associated with case-by-case variation.

Our Response: Each LOA issued pursuant to these ITRs will include ITR-required mitigation measures and monitoring and reporting requirements. FWS works closely with LOA applicants to ensure they have the information needed to submit successful, complete LOA applications.

Comment (196): The requester states 8 Star Alaska, LLC should be eligible for coverage for LOAs under these ITRs regardless of their AOGA membership status.

Our Response: The preamble text specifically identifies that 8 Star Alaska, LLC is an eligible party to request an LOA under these ITRs.

Comment (197): One commenter requested that the FWS withdraw or reject the proposed ITR and adopt a more precautionary, science-based approach that applies conservative thresholds consistent with statutory intent.

Our Response: The FWS has relied on science-based approaches to reach negligible impact and small numbers determinations, as is outlined in its analysis and supplemental information.

Comment (198): One commenter stated that the proposed regulations appear to violate the 1973 International Agreement on the Conservation of Polar Bears.

Our Response: The FWS is not authorizing anything that qualifies as a “taking” as that term is defined by the 1973 Agreement on the Conservation of Polar Bears. Article VI.2 of the 1973 International Agreement on the Conservation of Polar Bears states that the Agreement shall not prevent a Contracting Party from maintaining or amending existing legislation or other measures or establishing new measures on the taking of polar bears so as to provide more stringent controls than those required under the provisions of this Agreement. Consequently, the proposed regulations do not violate the terms of the 1973 Agreement.

Comment (199): One commenter stated that the proposed ITR should not move forward until lawsuits related to recent National Petroleum Reserve-Alaska lease sales are resolved.

Our Response: The FWS declines this suggestion. ITRs do not authorize oil and gas activities themselves, they only facilitate the authorization of incidental, unintentional take of small numbers of polar bears and Pacific walrus during certain oil and gas industry activities. Resolution of those lawsuits will neither inform, nor impact the validity of, these ITRs.

Comment (200): One commenter states the FWS should evaluate whether polar bears in the SBS stock are demographically independent from polar bears in adjacent areas, because MMPA authorizations are based on stock boundaries and the stock estimates affect small numbers and negligible impact determinations.

Our Response: The FWS has previously assessed the data that exist to inform stock boundary delineations between the CS and SBS stocks. These were provided in the most recently published CS and SBS stock assessment reports. Further, there is ample evidence from multiple, independent, lines of data to support the current boundary separating the CS and the SBS. These included assessments of movement data (e.g., Scharf et al. 2019), capture data (i.e. very limited [i.e., 1–2] recapture of SBS bears in the CS and vice versa), den locations (Rode et al. 2015, Patil et al. 2022), summer land use locations (Rode et al. 2015, Atwood et al. 2016), demography and responses to sea ice loss (Rode et al. 2014, 2018), and stable isotope data (Smith et al. 2022). The commenter is therefore incorrect that the boundaries are largely based on harvest management. Although the boundaries are used for that purpose (one of many purposes), they were not developed for that purpose.

Comment (201): One commenter states there are studies that indicate there is a potential for meaningful dispersal between the SBS and adjacent stocks. They cite studies indicating broad areas of overlap between stocks (Amstrup et al. 2004, Amstrup et al. 2005), SBS bears denning within the bounds of adjacent stocks (Olson et al. 2017), and spatial overlap of GPS-tracked bears (Scharf et al. 2019). They state these studies indicate there are not strong barriers to dispersal between stocks, and there may be relatively high rates of dispersal between the stocks. Finally, they state that if rates of dispersal are high between currently identified stocks, they may not be demographically independent units that should be treated as separate stocks.

Our Response: It is true that there can be overlapping space use between the CS and SBS, but often this overlap is not accurately reflected by static maps (e.g., Amstrup 2004, 2005) because often one group has already moved away from that area before the other arrives in meaningful numbers. This is likely the case for the SBS and CS subpopulations based on sea ice dynamics in the region. Retreating sea ice in the CS causes most bears to move northwest towards Wrangel Island, whereas ice retreat in the SBS tends to move north or

northeast, away from the CS bears. There are only rare instances of a collared CS bear moving beyond a “mixing zone” into the heart of the SBS stock boundary. The same is true for the SBS moving into the CS stock boundary. Denning (based on animals collared in their respective stock boundaries) in the CS primarily occurs on Wrangel Island (Rode et al. 2015), whereas in the SBS it occurs on the northern Alaska coastal plain or the sea ice north of Alaska. Similarly, land use in summer for bears collared in the CS is largely in Russia, whereas SBS bears collared inside the SBS boundary largely summer on land in northern Alaska. Lastly, only 1–2 bears captured in the CS have been recaptured in the SBS. The same is true for SBS bears being captured in the CS. If there was significant interaction between these two stocks, we wouldn’t expect to see this much space use differentiation and would further expect significantly more captures of bears outside of their respective stock boundaries. Thus, based on the commenters own metrics, we do not believe there are high rates of dispersal between the two subpopulations, further supporting their discreteness.

Comment (202): Some commenters stated that the proposed ITR is not consistent with the MMPA objective of preventing stocks from falling below their optimum sustainable population level because of the risk to denning mothers and cubs and ongoing decline of the population. Commenters also stated that an impact that is not consistent with the stock reaching or maintaining its optimum sustainable population cannot rationally be deemed negligible.

Our Response: The best available science indicates the population decline that was noted in the mid-2000s has appeared to stabilize (Bromaghin et al. 2021). The FWS does not anticipate lethal take occurring and thus there would be no anticipated reduction in the population to move the subpopulation away from OSP. Further, we disagree that any additional take of SBS bears obstructs recovery. Regehr et al. (2017) showed that a polar bear population declining due to sea ice loss can still have a level of removal that would not hinder the persistence of the population.

Comment (203): One commenter stated the Endangered Species Act will be violated should the proposed ITR become final.

Our Response: Nothing that could be authorized pursuant to the ITR would violate the ESA.

Comment (204): One commenter states that all authorized and ongoing

take of polar bears, including incidental and subsistence take from the United States and Canada, as well as unknown mortality events, must be incorporated into the environmental baseline for the FWS's analysis of take. The commenter further states that any Level A takes of polar bears resulting from oil and gas activities can reasonably be expected to adversely affect the SBS stock, have a negative population level impact, and adversely impact the availability of the SBS stock for subsistence use.

Our Response: We analyzed the impacts of the specified activities in light of the environmental baseline, which includes the factors noted by the commenter.

Comment (205): One commenter states that for the FWS to comply with its section 7 consultation requirements it must consult on multiple gas and oil related impacts including seismic exploration, construction of oil and gas production and development facilities, as well as impacts from the construction, use, and maintenance of access routes, aircraft and vehicle traffic, field crews and other human activities, and noise disturbance.

Our Response: The FWS has completed intra-service section 7 consultation for the final ITRs. The consultation considered the factors noted by the commenter.

Comment (206): One commenter suggested that the FWS should reassess its take estimate to ensure that AOGA's petition does not take polar bears in violation of Section 9 of the ESA.

Our Response: Through our section 7 consultation and corresponding incidental take statement, the FWS has ensured polar bear harassment will not violate section 9 of the ESA.

Comment (207): One commenter recommended the FWS strengthen protections for polar bear denning habitat and walrus haulouts and prioritize the long-term conservation of Arctic wildlife and ecosystems.

Our Response: The FWS is not aware of any walrus haulouts in the specified project area. Polar bear denning habitat (*i.e.*, areas with suitable terrain to capture snow sufficient for creating a den) is widely distributed across the north slope of Alaska. Even with the proposed activities, a large area of denning habitat will remain available. Only new permanent infrastructure could modify existing denning habitat, but would likely create new habitat through the creation of elevated pads/roads. Denning habitat would not be affected that occurs along tundra travel routes and ice roads because those would be created after denning was initiated by a female and would not be

altered such that it couldn't be used in subsequent years. The ITRs include measures to ensure the least practicable adverse impacts on SBS polar bears and walrus and their habitat. We do not view the ITRs as inconsistent with the long-term conservation of Arctic wildlife and ecosystems, and notes that the mitigation, monitoring and reporting requirements prescribed by ITRs have a conservation benefit.

Comment (208): Commenters stated that the proposed ITR did not sufficiently consider potential impacts of repeated disturbances of polar bears or Pacific walrus across years, including potential displacement and loss of functional habitat. One commenter stated that multiple exposures of the same polar bear within and across authorizations and activities can increase the likelihood of a response rising to the level of an incidental take and/or can increase the severity of the response (*e.g.*, making an injury or serious injury and mortality more likely than from a single exposure). Other commenters stated that impacts from repeated disturbances cannot be reasonably considered as negligible. They argued that even low levels of repeated disturbance can lead to long term population consequences, particularly for populations that reproduce slowly and are already facing other pressures, including limited energetic flexibility.

Our Response: The FWS's analyses take into account climate-related changes in the distribution of bears (*i.e.*, during denning and summer land use) as well as the most recent estimate of the size of the subpopulation to reach its negligible impact determination. We consider these types of disturbance in our analyses and they are classified accordingly into Level B and Level A harassments. We are not aware of any scientific literature or data for polar bears that indicated repeated low-level disturbance (*i.e.*, Level B harassment) can have long-term population consequences.

Comment (209): Commenters stated more analysis should be completed on how the proposed ITR will affect polar bears at longer time intervals, possibly through the application of additional climate change projections, extending the regulatory timeframe by 10 to 20 years, and incorporating cumulative impacts analysis into projections.

Our Response: Per the MMPA, FWS cannot issue ITRs for periods exceeding 5 years (outside of the military readiness context). As we describe in our analysis, impacts to polar bears from Level B and Level A harassment are expected to be temporary.

Comment (210): One commenter stated any incidental take estimate included in the proposed ITR should explicitly account for detection limitations, unobserved interactions, environmental conditions that reduce monitoring effectiveness, and the likelihood and consequences of repeated exposures to the same individuals within and across years from the activities within the scope of the proposed ITR and other sources of human-caused impacts.

Our Response: The FWS agrees that accounting for <100 percent detection is important when utilizing observation data. Our analytical methods account for the fact that myriad factors (*e.g.*, weather, darkness) can lead bears and dens to be missed by observers.

Comment (211): One commenter stated that the supplemental analysis does not present analysis supporting its conclusion that apart from a large-scale illegal oil spill, impacts from Industry activity on seals are anticipated to be minor and short-term and these impacts are unlikely to substantially reduce the availability of seals as a prey source for polar bears.

Our Response: This request is to authorize the potential take of polar bears and walrus. FWS does not have authority for authorization of take of seals. Measures to minimize impacts to polar bear habitat are considered in the analysis regarding the means of effecting the least practicable adverse impact. As we stated in the supplemental information, impacts from Industry activity on seals are anticipated to be minor and short-term and these impacts are unlikely to substantially reduce the availability of seals as a prey source for polar bears. Further, the specified activities that will produce in-water sound and vessel traffic, which we have identified as the potential sources for harassment for seals, would occur during the ice-free season, when polar bears rarely hunt in the specified geographical area. Neither the request nor these ITRs contemplate authorization of take from oil spills.

Comment (212): Commenters stated that impacts of the specified activities should be evaluated in the context of cumulative stressors, including climate change, sea-ice loss, increased shipping, past take, and expanding industrial development in the Arctic with multiple operations occurring simultaneously.

Our Response: The FWS adequately considered other stressors while developing this rule. The potential impacts of the requester's specified activities were considered in light of other ongoing factors and activities

affecting the marine mammals stocks at issue.

Comment (213): One commenter states there is no accounting of how many bears FWS is allowing to be taken each year or whether the amount of take is consistent with the agency's findings and determinations because multiple separate take authorizations have been issued on the North Slope. The commenter further questions whether the FWS approach can meet its obligations under the MMPA, as the FWS does not appear to track the number of authorized takes for each permit.

Our Response: The FWS has presented MMPA determinations for each take authorization that has been issued that may impact the SBS stock, and each of these determinations include estimates of total take associated with the specified activities. The authorizations also included monitoring and reporting requirements wherein every polar bear encounter must be documented and reported to us. We report summaries of this LOA database in our supplemental information, where we discuss the spatio-temporal variability of polar bear encounters and polar bear harassment. We considered other sources of impacts to SBS polar bears as part of the baseline of existing impacts when developing these ITRs.

Comment (214): One commenter stated that the draft EA does not indicate the amount of take authorized by previous ITAs or the risk of lethal take associated with each ITA.

Our Response: The number of takes authorized in each respective take authorization can be found in those authorizations. The FWS has not anticipated lethal take as a result of any of the listed authorizations, nor has any lethal take been reported. The impacts of these authorizations are limited to short term, temporary effects of largely Level B and few Level A harassment events.

Comment (215): Some commenters stated that the FWS does not adequately consider the combined effects of habitat loss and industrial disturbances as interacting stressors in its analysis. Commenters stated that industrial disturbance could push polar bears or walrus away from limited productive foraging areas or compromise foraging efficiency. One commenter explained that land-based food sources (e.g., birds, bird eggs, Arctic char, and whale carcasses) are likely to increase in importance to polar bears and help them adapt to low sea ice conditions, but industrial disturbance could limit access to these resources.

Our Response: The FWS considers changes to polar bear habitat use due to changing sea ice conditions (e.g., increased land use in summer/autumn, increased terrestrial denning). Minimal industrial activities are proposed for the offshore region, primarily related to shipping. This is the area where polar bears could be displaced from foraging areas. However, the ice will have retreated from these regions by the time boats are passing through them to support Industry operations. Therefore, there should be no source of marine disturbance to hunting polar bears. While on shore, polar bears only opportunistically use resources such as birds, bird eggs, and Arctic char and there are many other areas along the coast where these resources occur. But they are not known to be important to bears even with increased land use. On the other hand, use of whale carcasses left over from subsistence hunts are an important resource to polar bears on shore in autumn. These occur away from where industrial activity is being proposed (i.e., Cross and Barter islands). Thus, bears would still have access to those resources even with the proposed activities.

Comment (216): One commenter states that ensuring engagement with Alaska Native communities is not only a policy objective but is a statutory requirement. The commenter further states that consultation and coordination [with Alaska Native communities] must be substantive and enforceable, not merely procedural commitments included in operational plans. The commenter specifically recommends that FWS should: (1) require clear documentation demonstrating meaningful consultation with affected Tribal governments and subsistence organizations prior to authorization of activities, (2) establish transparent reporting requirements so that wildlife interactions are publicly documented, (3) require independent monitoring or third-party verification of industry reporting where feasible, and (4) clearly define consequences if operators fail to comply with mitigation measures, monitoring requirements, or consultation obligations. Lastly the commenter states their belief that without enforceable accountability measures, commitments regarding coordination with Tribal governments, subsistence users, and monitoring programs risk becoming aspirational rather than operational safeguards.

Our Response: The process through which LOA recipients must engage with the affected communities and develop a POC as necessary is fully described in the proposed ITR. This process has

proven effective over many years at avoiding conflicts between ITR covered activities and subsistence use of marine mammals. We find that the information that Industry is required to provide pursuant to these provision is sufficient. In prescribing Industry outreach to subsistence users, the FWS recognizes that requests for coordination from Industry may be burdensome to subsistence users, and it is important to strike a careful balance in the degree of communication. Allowing for flexibility in the process can allow for greater agency to subsistence communities that can then dictate the degree and intensity of their coordination with industrial neighbors. For instance recent agreements whereby Industry has agreed to provide transportation to sub users has decreased the probability for human-polar bear conflict.

Comment (217): Commenters stated the FWS did not adequately engage with local Alaska Native groups and consider potential impacts and concerns beyond those directly linked to subsistence harvest. Commenters stated the FWS should have considered how industrial activity will impact cultural sites and practices, incorporating Traditional Ecological Knowledge (TEK) into monitoring and regulatory plans for the area, and specific efforts to include Alaska Natives in decision-making steps, rather than simply inviting comments after the proposal has already been made.

Our Response: The FWS recognizes that TEK and IK can be part of best available scientific evidence. However, the limited degree of available TEK and IK concerning the adverse impact of industrial activities on polar bears and walrus suggests there is not an unmitigable adverse impact on the availability of these species for subsistence use. The FWS welcomes the incorporation of TEK and IK in our take authorizations through future coordination with knowledge holders.

Comment (218): Multiple commenters expressed concern that the 30-day public comment period was insufficient to time for the public to review the proposed ITR and associated documents and engage with scientific experts.

Our Response: We believe that we provided the public sufficient time to understand our approach, while still processing the Request in a timely manner. While several methods have been updated, we have used the same general methodological framework presented in the 2021–2026 Beaufort Sea ITR and its revision.

Comment (219): One commenter stated that the FWS has not undertaken a concerted effort to thoroughly engage

with the subsistence community and polar bear hunters when compiling and evaluating the scientific and other information informing its proposed ITR. They stated that early, meaningful engagement with IK holders, the North Slope Borough, its Department of Wildlife Management, and the Alaska Nannut Co-Management Council (ANCC)—all of whom have extensive knowledge of polar bears and their environment and are willing to work with the FWS—could have led the FWS to develop a more realistic forecast of potential incidental takes. They stated knowledge reflecting decades of observational data, the outcomes from real world applied approaches to mediating take, and a very long-term understanding of the behavior of polar bears within the region could have served as supporting data and observations to parameterize and validate models and assumptions utilized by the FWS, which instead adopted overly conservative estimations. The commenter stated the FWS usually only engages with Indigenous subsistence-based communities and Alaska Native co-management organizations on inputs to proposed ITRs when requesting public comment and the development process is almost complete.

Our Response: The FWS has a strong working relationship with our co-management partner, ANCC. We recognize that TEK and IK can be an important part of best available scientific evidence. However, the limited degree of available IK indicating the adverse impact of industrial activities on polar bears and walrus suggests there is not an unmitigable adverse impact on the availability of these species for subsistence use. We welcome the incorporation of TEK and IK in our take authorizations through future coordination with knowledge holders.

Comment (220): One commenter suggested FWS failed to meet an obligation for meaningful consultation with Alaska Native Tribes or corporations, as mandated by the Alaska Native Claims Settlement Act (ANCSA) and E.O. 13175. They stated FWS must require third-party Indigenous oversight of mitigation plans and halt activities where subsistence conflicts are identified.

Our Response: The FWS has complied with its Government-to-Government and Government-to-ANCSA Corporation consultations obligations and incorporated Plan of Cooperation requirements into the ITRs. The POC process provides potentially affected subsistence users and opportunity to

work with operators concerning mitigation plans and any circumstances under which activities should be halted to avoid conflicts with subsistence activities.

Comment (221): One commenter states that FWS is required to consider the transboundary impacts on polar bears in the context of international obligations under the 1973 Agreement on the Conservation of Polar Bears and the 1988 Inuvialuit-Inupiat Polar Bear Management Agreement in the Southern Beaufort Sea, while assessing the effects of AOGA's petition. The commenter further states that the FWS has failed to consider how take of polar bears from the activities described in the proposed ITR will affect the quotas and management protocols established through the Inuvialuit-Inupiat Polar Bear Management Agreement.

Our Response: We are not authorizing anything that qualifies as a "taking" as that term is defined by the 1973 Agreement on the Conservation of Polar Bears. The Inuvialuit-Inupiat Polar Bear Management Agreement is a user-to-user agreement between the Inuvialuit of Canada and the Inupiat of the North Slope of Alaska; no other entities are signatories. The Inuvialuit-Inupiat Agreement focuses on harvest management, with only one mention of commercial activities: It lists "To minimize detrimental effects of human activities, especially commercial activities, on important bear habitat" as an objective. The ITR process is designed to ensure that detrimental effects are minimized, which is consistent with the objectives listed in the Agreement. Further, the FWS believes this ITR would not result in population-level impacts on the SBS subpopulation that would impact harvest quotas or management in Canada.

Comment (222): Commenters stated the proposed ITR would have negative economic impacts by harming ecotourism or by preventing more profitable oil and gas development later in the future.

Our Response: The FWS does not anticipate any lethal take or adverse impacts to tourism. Potential impacts of the proposed ITR on the socio-economic environment are addressed in the associated EA.

Comment (223): One commenter suggests that overestimated incidental take of polar bears from the FWS's predictive modeling, especially of lethal take and Level A harassment of polar bear cubs, will impede future development of oil and gas resources and result in substantial economic losses.

Our Response: The FWS does not agree that its approach to estimating take will impede future development of oil and gas resources or result in substantial economic losses. The FWS's predictive estimates, along with the requester's estimates and qualitative factors, support issuance of these ITRs. These ITRs do not apply outside their defined geographic area and do not establish any general thresholds for what constitutes non-"small numbers" or a non-"negligible impact" under the MMPA. Any future requests for incidental take authorizations will be analyzed as they are submitted and we will approve such requests if we make required MMPA determinations.

Comment (224): Some commenters indicated that the proposed ITR is not sufficiently protective of polar bears and walrus because the precautionary principle should guide management decisions for species already under environmental stress. One commenter stated that proceeding with expanded or continued authorization of incidental take in the context of uncertainty surrounding climate projections, species resilience, and industrial impacts in the Arctic reflects a risk-tolerant approach that is inconsistent with conservation mandates under the MMPA.

Our Response: The FWS uses the currently best available scientific information to inform its analyses which includes information on how polar bears in the SBS stock are responding to changing sea ice conditions (e.g., increased summer/autumn land use, increased terrestrial denning). The FWS uses neither a precautionary principle nor risk-tolerant approach for assessing negligible impact. Instead, we rely on scientific data to inform its decisions.

Comment (225): Commenters stated that that proposed ITR's reliance on projections, modeling, and assumptions raises serious concerns about whether a precautionary approach is being implemented.

Our Response: Under the process established by the MMPA, FWS's decisions on whether to issue requested ITRs are guided by prospective findings concerning the anticipated impacts of the specified activities. To account for uncertainties with respect to the extent of future impacts, we utilize predictive modeling, heavily informed and parameterized by data from peer-reviewed science or other empirical datasets, such as observation reports from prior analogous activities.

Comment (226): Commenters stated that not enough information was provided on potential impacts of in-water noise on polar bears, walrus, or

their prey and that is not realistic to assume that animals will move away from sources of underwater noise.

Our Response: The FWS has described potential impacts to polar bears and walrus from in-water sound in the proposed ITR and supplemental information. As we stated, the most common reaction to in-water sound is anticipated to be a behavioral response, which we also anticipate may occur due to human-polar bear or human-walrus interaction. All of the estimated walrus harassment is due to water noise, and polar bear harassment due to vessel and in water activity has been factored into take estimates as well. The vast majority of polar bear foraging occurs outside the area of specified activities. Subsistence harvested whale carcasses are also located outside the footprint of the specified activities.

Comment (227): One commenter expresses doubt on the viability of the FWS's analysis of repeat bear encounters derived from GPS location data by stating that the timing of the location data (mid-August to October) does not correspond with periods of busy onshore industrial activity and whether the sample size of 35 bears is sufficient. The commenter recommends that the FWS assumes that each take would occur to a different individual polar bear.

Our Response: The reason for limiting data to this time period and to specific hours of the day was to ensure the possibility that such encounters would have the highest probability of being seen and recorded, the metric for which we are attempting to estimate a correction factor. There were more bears with tracking data but they never came close enough to be considered an encounter by our criteria, similarly we only expect a portion of the total SBS population to visit areas with industrial activity during any given year. Because these bears are presumed to be randomly chosen from the population, even a small sample size can provide us an unbiased estimate, albeit one with a potentially higher variability than an estimate with a larger sample size. Assuming all takes are on different bears is definitely an assumption that we know is untrue given our limited data, and such an assumption would certainly introduce bias.

Comment (228): One commenter states that it is unclear how the FWS derived a 45 percent estimate when aggregating the probability of take over the 5-year period or how it developed its estimate for the median over the 5-year period.

Our Response: While the 95 percent CI for a given year may include values

of concern, that doesn't necessarily mean those values are highly probable. For example, for 2026–2027 the 95 percent CI for lethal take is 0–2, but if one looks at the distribution behind that CI, we see that 88.1 percent of the values are 0, and only 7.2 percent are 2. Clearly 0 is by far the most likely outcome.

Comment (229): One commenter notes that the literature suggests polar bears utilizing terrestrial habitats for pre-denning foraging and subsequent denning on land has increased over the previous decades. They state that there is expected to be 37 land-based dens in the ITR area but they also believe that there could be more (albeit no data or sources are provided to support this specific assertion). The commenter continued on to suggest that the FWS should acknowledge that estimating current numbers of dens from historic observations could result in significant underestimates.

Our Response: The commenter incorrectly cites the results in Durner den catalogue. It is not appropriate to just look at the number of dens in that catalogue at different time intervals to show an increase in land-based denning. This is because most of the dens in the catalogue do not have any information about the search effort required to find each den. As such, the majority of dens just reflect those that were discovered as people were going about their activities on the North Slope. Thus, dens are going to be biased towards those able to be seen by humans, and thus will reflect the increasing industrial footprint rather than a 1:1 rate of increased use of dens on land. This is why we only utilize a subset of the den catalogue for our analyses (*i.e.*, those from GPS collared bears or those with VHF collars that were detected from a systematic survey of the SBS range). It is true that denning on land has increased in the last few decades for the SBS stock (*i.e.*, Olson et al. 2017), but their estimate (based on collared bears) is much lower, approximately 30 percent of dens now occurring on land. Our analytical methods incorporate this increased use of land-based dens in our analysis.

Comment (230): The requester suggests the FWS incorporate their discussion of potential impacts to marine mammals in water, which was provided in their Request. They state the FWS use of 2018 National Marine Fisheries Service (NMFS) technical guidance will be subject to much public scrutiny and is not the best available scientific information.

Our Response: The FWS has not decided whether we will adopt NMFS's

updated 2024 technical guidance for assessment of potential impacts to marine mammals due to anthropogenic noise. The updates are largely focused on the effects of cumulative sound exposure, which is of less concern to polar bears and walrus than the National Oceanic and Atmospheric Administration (NOAA) trust species. Polar bears in particular rarely have their ears under water for extended periods. Using cumulative sound exposure thresholds for polar bears may result in the overestimate of take. For these reasons, we will continue to use previously established thresholds.

Comment (231): The requester points out a discrepancy between how the FWS defines the coastal and offshore zones, which they feel leads to a 0.4 km overlap in habitat zones, and asks for clarification to be provided.

Our Response: Thank you for this recommendation for clarification. The offshore zone begins 2 km offshore of the shoreline. There is no overlap in the coastal and offshore zones.

Comment (232): One commenter called into question the accuracy of using a 1.6 km buffer because it was based on the two studies that examined polar bear response distances to aircraft aerial surveys and to approaching snowmobiles. The commenter suggests that the application of the 1.6-km buffer area is scientifically flawed and contrary to observations by local residents, subsistence hunters, and industry observers. They additionally provided the example that polar bears enter local communities on their own initiative and travel through streets and between buildings with no observed behavioral response. And, in its petition, AOGA includes data from industry observations demonstrating that of 1,145 polar bears reported within 402.5 meters of industrial activities, only 103 (9 percent) had a behavioral reaction. The commenter suggested that this low reaction rate is unsurprising to them because location and occupancy of Industry (or other) structures are significantly less disruptive than the low altitude aerial overflights and approaching snow machines used to derive the 1.6-km response distance that FWS relies on to establish its presumed impact area. The commenter stated that it is not clear how or if FWS accounts for the frequency of polar bears approaching Industry facilities on their own volition. Lastly, the commenter stated their belief that the passive existence of a structure cannot cause harassment under the MMPA, and any assumptions to the contrary further skew and overestimate the amount of incidental take that may be occurring.

Our Response: The FWS disagrees with the commenter that low altitude aerial overflights or approaching snow machines are more impactful than any activities the applicant has proposed (e.g., hovercrafts operating over the sea ice) thus still believes there is sufficient support in the scientific literature to justify considering a 1-mi potential disturbance distance. This is supported by our own database of encounters, which indicates bears can and do exhibit behavioral reactions past 805 m. We do not consider the passive existence of a structure as capable of causing harassment. This is why we use site occupancy rates from AOGA to inform its analysis. We do differentiate for polar bears approaching Industry facilities on their own volition as this would represent every encounter with active (i.e., non-denning) polar bears. Even if bears enter facilities on their accord, they can still be disturbed by industrial activities. Further, a bear could decide to avoid entering a facility, but still be disturbed if they passed by close enough to the source of disturbance.

Comment (233): The requester stated that the FWS should list the locations with 24-hour occupancy that were used to generate polar bear encounter rates.

Our Response: Thank you for this suggestion. We have added the list.

Comment (234): One commenter suggested that the FWS's review of polar bear observation records to determine the rate at which incidental harassment proceeds intentional take overestimates the rate of incidental harassment proceeding intentional take by taking a default position that take did occur.

Our Response: The commenter is incorrect regarding the FWS's reevaluation of intentional take records to document the rate of incidental take proceeding intentional take. The default position was not to assume that incidental take occurred as stated by the commenter.

Comment (235): One commenter noted that different types of industry activities create different levels of sounds and different type of activities have different probabilities of polar bear behavioral reactions.

Response: The commenter is correct that different types of activity create different noise profiles that can be detected at different distances and thus presumably have different disturbance profiles as well. Including this level of detail, however, would require two pieces of information that we currently do not have. First, it would require AOGA companies to provide very explicit descriptions of the type of activities that could occur at every

facility and piece of infrastructure because the noise profiles differ considerably on how impactful they would be to polar bears. AOGA companies have not provided that information in their application. Second, it would require activity-specific disturbance rates which do not currently exist, except for fixed-wing and helicopter overflights.

Comment (236): One commenter noted that the FWS uses occupancy of buildings, pads, and roads to estimate Level B harassment of non-denning polar bears in their predictive modeling. The commenter suggests the FWS considers a person inside a building as an exposure to a polar bear and a road being used once a day as the road being occupied. Furthermore the commenter believes that FWS's method of using occupancy in this way is overly conservative and leads to overestimations of take.

Our Response: The "occupied"/"unoccupied" dichotomy incorporated into FWS's methodologies provides a basis for distinguishing between facilities, roads, etc. that are being actively used and those that are not. This promotes a more accurate assessment of where and when human acts that can constitute take would or would not occur. For example, where we are informed that a given facility will not be occupied during a certain timeframe, we can reasonably assume that no human acts that constitute take would occur at that facility during the unoccupied period.

The "exposure" concept reflects a spatial and temporal overlap between a polar bear and the disturbance zone associated with an occupied area. An "exposure" is not assumed as a take. Rather, FWS applies a "disturbance rate" that accounts for data indicating that only a small subset of exposures result in take.

With respect to the commenter's hypothetical scenarios (a facility occupied by one person, and a road used just once a day), we agree with the general notion that an occupied Industry area featuring very limited human activity would tend to entail less potential for take than an occupied Industry area with intensive human activities (assuming equal prevalence of polar bears in the area). We could theoretically account for such differences were it to be provided with more detailed information concerning the extent of human activities in each occupied area described in the ITR request. Lacking such information, we will continue to apply general disturbance rates that account for varying intensities of human activities.

Comment (237): One commenter suggests that the 2-km coastal zone is too broad and leads to overestimates of harassment.

Our Response: We have discussed the relationship between polar bear encounters and the coastline, and acknowledge the number of encounters decreases with increased distance from the coastline. As we have stated in past comment responses, the coastal zone was established at 2 km to completely capture the large number of polar bear encounters near the shore and delineate the area between a higher rate of encounters and a very low rate of encounters in the inland zone.

Comment (238): One commenter suggests that the FWS's evaluation of the LOA database records uses an over precautionary approach which results in an overestimation of harassment.

Our Response: The MMPA does not require, nor does FWS use, a precautionary approach. However, we do calculate rates of Level B harassment, which is defined as an act of pursuit, torment, or annoyance that has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns. Our use of the 99th quantile ensures we capture the rate at which an act of pursuit, torment, or annoyance that has the potential to disturb occurs. Using the mean would only supply us with an estimate of how frequently, on average, a bear exhibits an observable harassment response.

Comment (239): One commenter notes that Industry surface activities such as exploratory drilling, gravel mining and blasting, ice and snow road construction and use, pipeline and other facility construction and maintenance, comprise the bulk of the authorized takes but are not individually analyzed. The commenter suggests that because these activities are analyzed in aggregate and not individually they feel that the analysis is too coarse to be meaningful and should be considered arbitrary.

Our Response: The scientific literature does not provide estimates of disturbance to bears for all of the different types of disruptive activities that they could encounter. As such, the FWS utilizes responses of polar bears to a range of activities while on the surface to estimate its impact. This pool of encounter records includes harassment from very intensive activities (e.g., blasting) as well as less intensive activities (e.g., pipeline maintenance). The rates of potential harassment from these activities will therefore average in one representative harassment rate. If we felt the specified activities in the proposed ITR were of a meaningful

different composition than those represented in the dataset, our harassment rate would not be applicable. However, the activities are of the same general type and intensity as past ITRs. Thus, we believe this not an arbitrary decision but one that reflects the available data and likely outcomes.

Comment (240): One commenter notes that in the proposed ITR, the FWS acknowledges that Level B harassment could occur to non-denning bears. However, the commenter states that the ITR only addresses surface impacts from aircraft, vessel traffic, and other offshore noises. The commenter believes that the FWS has not addressed impacts to cubs and mothers moving across areas where seismic activity may be occurring as the bears move towards the sea. The commenter suggests that these type of exposures could create the potential for injury or mortality too and therefore, should be counted as Level A harassment or lethal take. Continuing on, the commenter asserts that not considering this potential should render the proposed ITR arbitrary and capricious.

Our Response: The FWS predictive modeling estimates of impacts to surface bears includes impacts to sows and cubs of the year. The LOA database captures observations of sows and cubs of the year as they head to the sea ice, and therefore the surface analysis predictive estimates sufficiently address their potential harassment.

Comment (241): One commenter noted that in the opinions of Dr. Whiteman and Geoff York, not all Level B harassment may be detectable. The commenter cites a statement by Dr. Whiteman and Geoff York that indicates that there is clear evidence of physiological responses of bear to humans even if there is no outward behavioral change. The commenter further states that the FWS did not consider the impacts of these physiological responses on the health of polar bears.

Our Response: The MMPA defines Level B harassment as an act of pursuit, torment, or annoyance that has the potential to disturb the marine mammal by causing disruption of behavioral patterns. While physiological responses may result in a change in behavioral patterns, simple physiological response to humans does not reach the threshold of Level B harassment. If a physiological stress response were to lead to a disruption of behavioral patterns, it may be difficult to observe and subsequently estimate. We attempt to capture the potential for this unobservable harassment using predictive modeling

estimates. However, without empirical studies of behavioral observations of wild polar bears fitted with heart rate monitors, we will not be able to quantitatively estimate this value. The literature cited by the commenters does not appear to be readily applicable, as it describes the physiological responses of black bears.

Comment (242): One commenter states that the FWS's method of calculating encounter and harassment rates from polar bear observations at stationary location may not be representative of encounters or harassment throughout the entire ITR area.

Our Response: The FWS has used stationary, 24-hour occupied facilities to calculate polar bear encounter rates because it would be exceedingly difficult to determine the amount of search effort associated with mobile activities. However, harassment rates were calculated using all encounter records, including those from mobile activities.

Comment (243): The requester suggests that by homogenizing spits and island habitat types with other land and nearshore waters the FWS overestimates encounters throughout their coastal zone. The requester further recommends that the FWS uses more granularity in patterns of habitat use by polar bears.

Our Response: We appreciate the recommendation. The FWS predictive surface impact model is not stagnant and is updated as new information becomes available (e.g., an offshore polar bear encounter zone was recently added). Although we may consider incorporating the requester's recommendation in the future, we do not feel the current zones create overestimates of potential polar bear encounters.

Comment (244): The requester suggests the FWS state there is a drop in the distance at which polar bears are incidentally harassed at roughly 805 m.

Our Response: The FWS has acknowledged the change in number of harassment events at and past 805 m in the supplemental information. Specifically, we state that when using a subset of our LOA database records that include distance to bear, the records indicate two incidental takes occurring past 805 m (0.5 mi) and one past 1610 m (1 mi) (figure 2). However, because the amount of missing data per year is equally distributed, we can easily extrapolate that numerous unaccounted for takes that occurred but could not be included here because the information was not properly recorded or provided to us.

Comment (245): The requester states the FWS should adopt the analyses presented in the Request, which they claim are better suited than those produced by FWS.

Our Response: The FWS has chosen to retain their predictive model estimates in the ITR alongside the estimates presented in the Request and qualitative factors.

Comment (246): The requester states that because the FWS has stated that 1.6 km is a reliable sighting distance for determining encounter rate, it is not appropriate to estimate unobserved take within 1.6 km of operations. They also state the FWS should use their suggested impact area of 805 m.

Our Response: The FWS has not indicated that every polar bear within 1.6 km is seen, rather, we have indicated polar bears can be reliably seen up to 1.6 km away. On the contrary, we discuss at length the potential for polar bears to go unidentified on the landscape when discussing the potential uncertainties with estimation of harassment. The FWS has chosen to retain our impact area of 1.6 km as we do not think encounters beyond 805 m can be discounted.

Comment (247): The requester states that they feel there is sufficient evidence to reject the structure of seasonally independent harassment rates. The requester suggests a single harassment rate that is applied year-round.

Our Response: The FWS has presented support for maintaining seasonally independent harassment rates in the supplemental information presented in the proposed ITR. In short, when simply comparing open water and ice season harassment rates, the distributions look similar, and appear to lack support for distinction between the seasons. However, this is likely due to the sheer difference in sample size for the two seasons. When we subsample within the ice season encounters to create a sample size similar to the open season, we see a distinct differentiation between the distributions. Thus, FWS has chosen to maintain seasonally distinct harassment rates. Additionally, Miller et al. (2025; 10.1002/wsb.1589) found behavioral differences in how SBS polar bears respond to deterrents depending on what time of year the encounter occurred, likely related to levels of satiation. Thus, there is additional support for bears responding differently to sources of disturbance depending on the time of year a bear is encountered.

Comment (248): The requester states the FWS predictive estimates of Level B

harassment incorporate a harassment rate that is too high.

Our Response: The FWS further recognizes that its predictive models contribute to annual take estimates that have exceeded (and are expected to exceed) the number of events where biological consequences indicative of take are observed to result from Industry activities. One reason is that the predictive models are based on annual activities forecast for 5 years of Industry activity in advance, and the annual activities, and thus the corresponding take, have historically been of a smaller scope than that analyzed.

Additionally, the predictive models are one way to account for any unobserved take and account for certain acts which have “the potential to” result in certain biological consequences. Accounting for unobserved take and “the potential for” certain consequences involve a level of scientific uncertainty. When addressing uncertainties, the models incorporate assumptions that attempt to strike a balance between potential overestimates and potential underestimates, but, overall, are more likely to contribute to an overestimate, rather than an underestimate, of the incidental take of polar bears.

We recognize the continuing uncertainty about the scope of unobserved take and “the potential to” result in certain biological consequences, because these components, definitionally, do not avail themselves of an opportunity to evaluate the estimates against observations. Therefore, in evaluating the Request, we have avoided giving our predictive models, and quantification of take in general, undue weight in evaluating the Request. More specifically, we considered two separate predictive methodologies and resulting sets of take estimates, as well as qualitative factors, when making our small numbers and negligible impact determinations. The FWS thus did not rely solely on any single source of numerical estimates.

Comment (249): The requester states that changing the impact area for estimating harassment of polar bears on the surface dramatically changes the model results and cites the sensitivity analysis in the Request.

Our Response: The FWS acknowledges changing the area in which potential impact may occur in our predictive denning model will change the model results. However, we disagree the changes in output values are dramatically different. Further, changes in model inputs must be driven by best available scientific evidence that points to a need for a change in that

variable. There are several points of evidence indicating polar bears may exhibit a behavioral response to activity up to a mile away.

Comment (250): The requester states the FWS double counts take associated with hazing events by assuming that incidental harassment also occurs before the hazing activity.

Our Response: Counting the number of instances where incidental harassment occurs prior to intentional harassment (*i.e.*, hazing) is not a double count as the requester suggests. The FWS effort to understand the rate at which incidental harassment occurs before a hazing event has shown that incidental harassment can occur prior to hazing, but that sometimes only hazing occurs. The FWS has lowered the potential harassment rates as a result of this effort. Further, this authorization does not count the number of estimated hazing events, nor are they taken into account in our small numbers or negligible impact determinations. Therefore, there is no double counting.

Comment (251): The requester states FWS should not add additional small vessel trips to their analysis of the impact of vessel traffic.

Our Response: The FWS has revisited its vessel analysis in response to the requester's comment. We noted an error in total number of days for small vessel activities, which accidentally added additional take to small vessel activities. The error has been corrected and the total number of take attributed to vessel activities has been updated.

Comment (252): One commenter stated the proposed ITR and supplemental analysis do not identify which activities are likely to expose polar bears to noise, describe how likely sound levels are to exceed established harassment thresholds, or provide an estimate of resulting incidental take. They stated the FWS does not provide analysis supporting its stated conclusion that sound exposure is not anticipated to result in any lethal take or Level A harassment of non-denning bears.

Our Response: The FWS discussed the potential harassment of polar bears and walruses by underwater sound in both the proposed ITR and supplemental information. As we discussed, anthropogenic sound in the water can lead to harassment of polar bears or walruses, and in extreme cases, temporary or permanent hearing loss. But as we explain, polar bears rarely swim with their head underwater, effects are estimated to be limited, and behavioral reactions to human presence have been incorporated into our surface bear and vessel take estimates.

Comment (253): The requester stated any inferences made by the FWS in their analysis of vessel traffic is likely in error. They further state that analysis of operations in nearshore in-water habitat should be separated from that in islands and spits, and that the harassment rate should be different than that used for surface activities.

Our Response: We appreciate the recommendation. The FWS predictive surface impact model is not stagnant and is updated as new information becomes available (*e.g.*, an offshore polar bear encounter zone was recently added). Although we may consider incorporating the requester's recommendation in the future, we do not feel the current zones create overestimates of potential polar bear encounters.

Comment (254): One commenter suggests that using the results of Quigley et al. (2024) as a basis to estimate the amount of harassment attributable to industry aircraft operations leads to overestimates of take because they believe that the methodology implemented by Quigley et al. (2024) to study aircraft disturbance to polar bears differs from typical industry aircraft operations.

Our Response: It is never possible to conduct a study that addresses every issue for every circumstance. While the commenter is correct that the way the Quigley study was designed is not 100 percent representative of how Industry operates their aircraft, to our knowledge, this is the only study that has specifically looked at harassment rates to polar bears from aircraft overflights. Even if Industry generally avoids flying directly over polar bears, there is no way to ensure this will not happen, especially when weather is less than ideal. There is also nothing that would preclude an aircraft from flying directly over a bear multiple times if it did not detect the bear and they were conducting an “out-and-back” type flight. We agree that the repeated overflights for individual bears in the Quigley study might lead to a higher response rate than might be expected from Industry. However, the study identifies altitudes that aircraft can be flown such that they avoid disturbing bears under a variety of conditions, including instances where Industry may inadvertently fly over a bear multiple times.

Comment (255): One commenter stated that the proposed AIR survey requirements and 1.6 km operational buffers fail to ensure the least practicable adverse impact to polar bears because they permit activities to proceed in high-risk denning zones with

inadequate detection reliability and overly narrow protective radii, exposing a declining SBS population to avoidable harassment and repeated noise from surveys during the most vulnerable of life stages.

Our Response: The FWS predictive denning impact model considers AIR efficacy, denning phenology, and polar bear reactions to sources of disturbance. We have determined after reviewing hundreds of hours of AIR survey footage across many years that no polar bears were disturbed by the AIR surveys. Lastly, the most current science on the abundance of the SBS stock does not suggest that it is declining, but has most likely stabilized since its decline in the early 2000s.

Comment (256): The requester states the mitigation measure requiring vessels to “maintain the maximum distance possible from concentrations of polar bears or walruses” is too vague, and should be revised to “avoiding concentrations of polar bears or walruses.”

Our Response: Thank you for the suggestion. We have revised this section of the proposed ITR to require vessels maintain the “maximum distance practicable (805 m (0.5 mi) or greater).”

Comment (257): The requester stated that skirting around elevated facilities is not current practice, is not necessary, and is not operationally possible.

Our Response: Thank you for this feedback. We have removed the reference to facility skirting.

Comment (258): Some commenters stated mitigation and monitoring measures were insufficient and alternatives should be considered, such as mandatory thermal or infrared surveys to locate polar bear dens, expanded buffer zones around denning areas and walrus haul-outs, seasonal restrictions on certain activities during sensitive breeding or denning periods, and stricter reporting requirements when wildlife encounters. One commenter stated the FWS or the requester should study behaviors of local wildlife populations and learn how to adapt human behavior to avoid interactions. Another commenter stated FWS should strengthen requirements so that disturbance is avoided rather than minimized.

Our Response: The current proposed authorization would require thermal surveys to locate dens. Denning habitat is identified through the use of GIS looking for areas with sufficient slopes to allow snow accumulation sufficient for a bear to dig a den. These landscape features occur throughout the proposed project area and putting buffer zones around denning habitat would remove

all areas from availability operation outside of the denning season. There are no known walrus haulouts in the proposed project area. The FWS and partners have conducted research on how polar bears behave when encountering various forms of human disturbance and these studies have been integrated into this analysis. Where practical (e.g., aircraft overflight height), we have set thresholds where disturbance is likely to be avoided. However, it is not possible to avoid all forms of disturbance to polar bears.

Comment (259): One commenter stated that implementation of the proposed ITR should continue to prioritize “biologically meaningful impacts” so that regulatory effort is not “diffused across low-impact or transient events.”

Our Response: The FWS summarizes all forms of potential take. However, when making negligible impact determinations, we rely most strongly on those forms of take that could have more biologically meaningful impacts (i.e., litter survival of cubs).

Comment (260): One commenter stated that the mitigation framework should preserve operational flexibility given dynamic and unpredictable Arctic conditions.

Our Response: The FWS understands the operational constraints the oil and gas industry faces in northern Alaska. We have a history of working with the applicant to develop alternative, effective mitigation strategies where unique circumstances preclude the safe and effective implementation of standard mitigations.

Comment (261): One commenter stated that the FWS should continue to evaluate the utility and efficiency of monitoring and reporting systems and focus data collection on decision-making needs and adaptive management. They stated that regular respective reviews of the ITR regulatory framework could help ensure its effectiveness and efficiency.

Our Response: The FWS works closely with LOA holders to ensure they meet monitoring and reporting requirements, and improve reporting where possible.

Comment (262): One commenter stated the FWS should encourage the use of proven, well-understood mitigation techniques and require operators to demonstrate that mitigation strategies are selected based on effectiveness in reducing harm, not ease of implementation or cost efficiency alone.

Our Response: The vast majority of mitigation techniques required by the proposed ITR have been used by

industrial LOA holders for years. Human-polar bear interaction plans and employee training programs are consistently updated when new information is available. The FWS is open to new mitigation methods as they become available, but always strives to understand the potential effects to trust species before adopting them as required or recommended measures.

Comment (263): One commenter stated the proposed 805-m exclusion zone and AIR survey requirements are insufficient given the difficulty of detecting dens under arctic conditions (darkness, snow, fog). They stated the FWS should require a third AIR survey, a minimum mandatory 1-km exclusion zone around confirmed or suspected dens, and suspension of activities within high-density denning zones from at least November through April. Other commenters generally suggested the buffer zones and den detection surveys were not sufficiently protective. One commenter stated these mitigation measures did not eliminate risk of negative impacts to the population, given documented failures under prior ITRs and accelerating Arctic warming.

Our Response: The 805 m threshold is being misinterpreted by the commenter. The commenter implies or assumes that the 805 m distance is the mitigation requirement for the no-disturbance buffer put around a den when it is located by Industry. However, the 805 m threshold is only used in our analytical techniques to estimate the potential impact of the proposed activities on denning polar bears and it only applies to the early denning period. We noted that upon reviewing disturbance case studies we found that no dens during the early den period were disturbed beyond this distance. In response we reduced the impact area in our current analysis. However, if Industry were to find a den during the early denning period (e.g., while creating an ice road), they would still be required to create a 1610 m (i.e., 1 mi) no disturbance buffer around the den. Given operational constraints, the oil and gas industry would be unable to suspend all activities within the high-density denning zones for the period the commenter indicated.

Comment (264): One commenter stated that in light of rapid Arctic ecosystem change, the FWS should conduct a formal review of regulations within 2.5 years of their issuance, with the authority to modify LOA conditions if monitoring data reveals harm to the protected species. Another commenter said 5 years between assessments is too long, creating risk of harmful impacts. Multiple commenters recommended the

FWS ensure more frequent review and adaptive management over the authorization period.

Our Response: LOA holders are required to submit annual reports with detailed information on polar bear interactions, staff training, and communication with subsistence communities. These reports are reviewed by FWS staff. The MMPA's ITR provisions already speak to the circumstances under which permission to take marine mammals is to be reconsidered.

Comment (265): One commenter stated the proposed ITR should not be finalized because it does not include building wildlife corridors to mitigate impacts of habitat loss and fragmentation on polar bears.

Our Response: The FWS is not aware of any data that identifies widely-used movement corridors by polar bears that would support the creation of wildlife corridors. The only corridor we are aware of is the coastline itself, but it would be impractical to build a corridor when the bears could simply swim around the infrastructure if they chose not to move through it. There is no evidence to suggest that polar bears are avoiding moving across different areas of the landscape due to disturbance. Further, LOAs include a mitigation measure that requires cessation of activities in a path between sows and cubs of the year and the sea ice, effectively creating a temporary corridor for their movement to the sea ice.

Comment (266): Some commenters stated that careful early, site-specific planning is important for developing protocols for temporary shutdowns that the proposed ITR requires following injury or death of a polar bear or walrus.

Our Response: We do not believe there is a level of early planning that can make it possible for all operations to shut down immediately in the event of a polar bear injury or fatality. The operations on the North Slope are highly variable, with the most complex locations containing multiple high pressure processing facilities that are fed by numerous remote wellheads. In these cases, operations likely cannot be shut down immediately in a safe way. In the rare event that a polar bear is injured or killed, LOA holders will contact the FWS immediately, and we will discuss the options with them.

Comment (267): One commenter stated that it is difficult to evaluate how FWS requiring a 1-mile operational mitigation zone around known polar bear dens contributes to activities having the least practicable adverse impact on the SBS stock of polar bears and their habitat. They stated

automatically applying a 1-mile exclusion zone around all dens, with a process for emergency exceptions, would be more consistent with past ITRs and more appropriate than FWS working cooperatively with LOA holders on identifying mitigation measures to apply within the mitigation zone around a den. This commenter suggested implementing a 1-mile operational exclusion zone around known dens would be practicable because only a few polar bears are estimated to be exposed to the specified activities each year. They suggested that the FWS was flawed in concluding that it is not practicable to implement an operational exclusion zone within 1 mile of denning habitat.

Our Response: In the analysis of potential mitigation measures that is a part of the Least Practicable Adverse Impact determination, FWS discusses an operational exclusion zone around hotspots, putative dens, and known dens. We explain in that analysis that rigid operational exclusion zones are difficult to maintain in an active oilfield, and therefore not practicable. For example, when past dens have been identified through AIR roughly half a mile from a drilling island causeway, a full, rigid 1.6 km exclusion zone would require wellhead operation and maintenance on the island cease because traffic could not continue down the causeway. This would not be practicable, safe, or operationally possible. Instead, we worked closely with the LOA holder who established traffic limitations, speed limits, additional staff training and communication, and remote monitoring of the den site. This type of coordination is what we are requiring.

Comment (268): Some commenters stated they were concerned that motorized vehicles would be used to observe polar bear dens, as this could cause distress to denning polar bears and put personnel sent out to evaluate dens in a dangerous situation. They suggested using drones or other less invasive methods to monitor polar bear dens.

Our Response: Using vehicles, parked as far as practical but ideally a mile away, are a better way to monitor dens than drones as a drone flying nearer a den would cause more disturbance than a parked vehicle further away. Human safety is always a priority, therefore observers would not be located directly adjacent to dens and individuals would remain in their vehicles. For these reasons, we feel disturbance of denning polar bears from observations would be minimal.

Comment (269): Several commenters questioned whether Industry operators could be trusted to implement monitoring and mitigation measures accurately and effectively. Some commenters recommended FWS mandate real-time, third-party monitoring rather than industry self-reporting and mandate frequent wildlife monitoring throughout the entire operational period. One commenter recommended requiring operators to have a biologist on site to advise on minimizing or avoiding impacts to polar bears. An additional commenter recommended ensuring that disturbance data is collected consistently and transparently and requiring adaptive responses if observed impacts exceed expectations.

Our Response: LOA holders are required to submit human-polar bear interaction plans and meet detailed polar bear encounter reporting requirements. The nature of the activities (*i.e.*, active oil and gas exploration, production, and transport) are significantly different from offshore operations, and may not be conducive to third party observers due to safety considerations. While not a requirement, a number of LOA holders have a wildlife biologist on staff who advise on minimizing or avoiding impacts to polar bears.

Comment (270): The requester has suggested a revision of the mitigation measures around putative polar bear dens from an "exclusion zone or buffer around the suspected den site" to an "appropriate mitigation zone" because they state exclusion zones are not always necessary.

Our Response: The FWS has chosen to modify the language to a "mitigation zone."

Comment (271): The requester has suggested small changes in the description of monitoring at polar bear dens to reflect their ability to stream data in remote locations. They have also suggested a revision that states the monitoring would occur at distances "deemed unlikely detectable by denning bears."

Our Response: The FWS has chosen to retain the original text, as the inclusion of "a distance unlikely detectable by denning bears" is somewhat ambiguous and difficult to enforce.

Comment (272): The requester states they do not feel a third FLIR survey is necessary in the high density denning zone. They state two surveys are sufficient.

Our Response: After further review, we agree. For the reasons explained in

the preamble, the final ITR does not require a third FLIR survey.

Comment (273): The requester states timing restraints for FLIR surveys are unnecessary, and logistically challenging.

Our Response: The required timing of these surveys increases detection rates. By having specific time windows, it allows the applicant to detect more dens that may have been initiated after the previous FLIR flight. This is especially true for the FLIR that occurs after the initial FLIR survey. The timing of FLIR surveys is considered in the den disturbance model which accounts for the phenology of den establishment, such that some dens are not discoverable by AIR if all AIR occurred early in the denning period. Operators' implementation of similar timing requirements has been successful.

Comment (274): One commenter stated data regarding wildlife encounters, disturbance events, and mitigation effectiveness should be made readily available to the public and affected communities. They state this transparency and independent verification is needed to help regulators, researchers, and the public assess whether the authorized activities are meeting mitigation standards.

Our Response: The FWS has summarized the spatial and temporal trends of polar bear encounters in our supplemental information. We will continue to strive to make data available to the public.

Comment (275): One commenter recommended that reporting requirements tier off from the ITR to fill critical information gaps and track effort as a proxy for incidental take estimates. The commenter also recommended that because the FWS uses Industry observation data in calculating take estimates and support for its small number and negligible impacts conclusion that a more robust research coordination section be included in the Request. The commenter provides working with AOGA to explore the potential for a dedicated observer program for all types of activities included in the classes of oil and gas activities in the Request to accurately and completely document interactions and account for unobserved interactions as suggested example.

Our Response: The FWS is committed to research targeted at filling the knowledge gaps discussed in the proposed ITR and supplemental information. We work with State and local governments, Industry members, and academic institutions to further our understanding of the potential impacts to polar bears from human activity. We

have also created standardized reporting platforms for LOA holders to document polar bear encounters.

Comment (276): The requester commented on a difference in the percentage of polar bear sighting records in the FWS database and the AOGA database that have distance to the polar bear. Specifically, the requester highlights a higher percentage of their records that report distance to bear.

Our Response: The FWS LOA database is comprised of data taken from initial polar bear encounter reports. If distance to bear was not included in the initial report, it is not in our database. AOGA has noted in their Request that they have undergone an effort to determine and record distance to bear for encounters that were missing it. This is the likely source of the difference in the datasets.

Comment (277): One commenter stated seismic exploration occurring without timing or geographic restrictions could have lethal impacts to denning cubs and their mothers through potential den abandonment and crushing in the den. They state the 45 percent chance of lethal take of cubs could have potential population-level effects.

Our Response: The FWS has analyzed the potential impacts to denning polar bears from the specified activities using our predictive modeling methods and the spatio-temporal data provided by AOGA upon our request. Our analyses account for the requesters proposed timing and locations.

Comment (278): One commenter recommends that the FWS should include additional mitigation measures into the Final ITR for sound-producing offshore activities, such as mitigation zones for polar bears based on specific received pulsed sound levels; adaptive mitigation measures including ramp-up procedures, power downs, and shutdowns in the event the power down operation could not reduce the received pulsed sound level to certain thresholds. They also suggest that the FWS should consider measures to reduce noise from pile driving, such as bubble curtains.

Our Response: While shutdown and mitigation zones are valuable mitigation measures for many marine mammals, they are not always ideal for polar bears due to the potential for negative human-polar bear interactions. For example, if a whale were approaching a pile driving activity, the driving would stop to allow the whale to inhabit the area free of human-caused noise. Should a polar bear approach a pile driving activity from the water, it may be prudent to continue driving unless there is a

danger of physically harming the animal thereby serving as a deterrent measure for the bear, and preventing a dangerous, close human-polar bear interaction. Noise reduction methods such as bubble curtains are not broadly applicable to all operations, and often aren't practicable in the Beaufort Sea.

Comment (279): One commenter suggests that the FWS take more concrete steps to ensure the effectiveness of mitigation measures discussed in the proposed ITR. They continue on to specifically suggest considering whether an additional FLIR survey is necessary, if certain areas of the North Slope such as polar bear denning habitat and corridors between onshore denning habitat and the coast should be off-limits to oil and gas activities during denning season.

Our Response: For the reasons explained in the preamble, the FWS does not view requiring more than two AIR surveys of the same areas as practicable at this time. We do not feel creating off-limit zones in certain areas of the North Slope as the commenter suggested would be practicable, as it would significantly limit travel through existing oil fields and prevent location-dependent activities from being conducted and completed.

Comment (280): One commenter stated that the FWS violated the MMPA by failing to consider spatial and temporal restrictions on AOGA's activities.

Our Response: Under the MMPA, the FWS has a requirement to ensure the specified activities have no more than a negligible impact on small numbers of a marine mammal stock, and in doing so imparts the least practicable adverse impact. We have made the required findings and determinations under the small numbers, negligible impact and least practicable adverse impact requirements. We did not identify any practicable measures that involve limiting the specified activities spatially and temporally, other than a mitigation zone around a suspected or known den site for the remainder of the denning season.

Comment (281): One commenter states that before finalizing the proposed ITR the FWS should ensure enforceable Tribal coordination and monitoring requirements.

Our Response: POC and monitoring and reporting requirements for LOA holders were listed in the proposed ITR and retained in the Final ITR.

Comment (282): Some commenters stated that the proposed ITR is not consistent with the MMPA objective of preventing stocks from falling below their optimum sustainable population

level because of the risk to denning mothers and cubs and ongoing decline of the population. Commenters also stated that an impact that is not consistent with the stock reaching or maintaining its optimum sustainable population cannot rationally be deemed negligible.

Our Response: Penalties are governed by separate MMPA provisions and implementing regulations and are not established in individual ITRs. The monitoring and reporting requirements required in these ITRs are sufficient to facilitate enforcement in the event that unauthorized take occurs.

Comment (283): One commenter requested clarity on the FWS's mitigation measure regarding a 1-mile operational mitigation zone compared to the FWS's 1-mile operational exclusion zone, which has been required in previous authorizations. They further stated that the FWS should provide their rationale for reducing protection to polar bear dens and analyze the consequences of their decision. They also state FWS should consider the impacts of an LOA holder declining to implement a 1-mile operational exclusion zone around a polar bear den in their analysis and address how this type of take would meet the definition of incidental take being infrequent, unavoidable or accidental as stipulated by the MMPA.

Our Response: As is stated in the ITR, potential actions may range from cessation or modification of work to conducting additional monitoring, and the holder of the LOA must comply with any additional measures specified. These are not reduced protections. In the past, FWS has worked with LOA holders to mitigate their impact to putative or previously undiscovered dens. As we have stated in the supplemental information, our predictive denning model accounts for disturbance and a subsequent behavioral reaction even if a den has been disturbed, located, and mitigated for in the late denning period. We were clear in the proposed ITR that while AOGA requested an 805 m buffer, FWS was proposing to require a 1.6 km (1 mi) buffer. That larger buffer is retained in the final rule.

Comment (284): One commenter suggests that the applicant's request for an ITR does not meet the adequate and complete standards under 50 CFR 18.27(d). The commenter recommends that the FWS should not consider the applicant's request for an ITR adequate and complete and should rescind its adequate and complete determination. The commenter further suggests the FWS return the Request to the applicant

with clear, written direction identifying the information gaps that must be addressed prior to resubmission.

Our Response: The FWS has maintained their finding that AOGA's request for an incidental take regulation is adequate and complete.

Comment (285): One commenter stated that neither the FWS nor the requester provided sufficient information to support a negligible impact finding.

Our Response: The FWS has used empirical data from peer-reviewed publications and decades of polar bear encounter records to generate thorough estimates of incidental take and associated impacts. We also have the requester's take estimates and qualitative factors. All of which support a negligible impact finding. We do not feel there is insufficient scientific information to make negligible impact finding.

Comment (286): One commenter recommended the FWS ensure that compliance requirements are clearly explained and accessible to farmers and landowners, promote voluntary conservation programs and partnerships with agricultural producers, consider economic impacts on rural communities when implementing protections, and provide education and outreach so stakeholders understand how to meet regulatory requirements.

Our Response: While no farmers or agricultural producers would be affected by these ITRs, FWS believes that it has complied with the remainder of the commenter's recommendations.

Comment (287): One commenter stated that the incidental take regulations could lead to issues by forcing denning polar bears out of their habitual areas and causing them to move into an area with more people or businesses, negatively impacting livelihoods.

Our Response: The geographic area of the specified activities encompasses much of the North Slope of Alaska. This area is extremely remote and largely made up of oil and gas facilities and their support staff. The village of Nuiqsit is within the geographical area as well. As we described in the proposed ITR, an average of 6 polar bear dens are expected to overlap with the specified activities annually. This represents a small portion (10 percent) of the roughly 60 polar bear dens on land in the SBS stock each year. We do not anticipate the issuance of take regulations to cause this limited number of bears to move into more populated areas.

Comment (288): One commenter stated that Non-lethal method

Temporary Confinement/Hunger reset, a method used in Canada to respond to polar bears and prevent human-polar bear conflict in specific scenarios, is a much better option compared to killing polar bears.

Our Response: These ITRs do not authorize any form of intentional or lethal take.

Comment (289): Commenters recommended keeping strong protections for the ANWR.

Our Response: These ITRs do not pertain to the Arctic National Wildlife Refuge.

Comment (290): A commenter stated businesses should be banned from using lethal methods of any kind in dealings with wildlife if they are "not willing and able to learn how to work in the presence of wildlife and how to use non-lethal methods to deal with wildlife in areas where humans will be."

Our Response: Safety of humans and polar bears is of paramount importance to the FWS. As such, we will continue to encourage those operating in polar bear habitat carry both less-than-lethal and lethal deterrents.

Comment (291): One comment listed many supposed components and environmental impacts of oil and gas activities on the North Slope, including a statement that "extractor fans send food smells out. This and trash attracts polar bears, which then get shot."

Our Response: The FWS works closely with the oil and gas industry to ensure that even if a bear is attracted to food odors from camp kitchens, that they do not receive a food "reward" by ensuring trash is stored in bear-proof containers. Human-polar bear interaction plans that include waste management plans are required as a part of LOA applications. When intentional take (hazing) is authorized under a separate part of the MMPA, hazing plans outline the escalation of hazing strategies that do not begin with lethal measures.

Comment (292): Some commenters stated the rule should be rewritten in clearer terms or plain language. Some stated that wording made it difficult for the public to understand that activities will disturb and potentially harm protected wildlife and made the rule "easier to approve." One comment stated "Phrases like "incidental take" and "negligible impact" make it sound like what's being authorized is rare, harmless, and unavoidable" when that is not an "honest description."

Another comment stated that terms including "take," "harassment," and "disturbance" were euphemisms used to describe lethal impacts and that the rule allows "Level A harassment"

(which includes injury or death) but frames it as “temporary behavioral disturbance.” They recommended that the FWS use plain language in the final regulations to explicitly state that den abandonment equals cub mortality and vessel strikes equal lethal take.

Our Response: The FWS utilizes certain phrases used in the statute and regulations (e.g., “small numbers” and “negligible impact”) to help demonstrate that its analysis and findings address the applicable standards. We attempt to describe potential impacts in clear terms and plain language to the extent possible, but not at the expense of scientific precision.

Comment (293): One commenter stated polar bears are a fundamental part of Alaskan culture and iconography, and allowing these vulnerable populations to be killed risks destroying a culturally significant species.

Our Response: The FWS does not anticipate lethal take of polar bears as a result of the specified activities.

Comment (294): One commenter stated it is unlikely that sufficient government resources are available to adequately review incidental take authorization requests.

Our Response: The FWS is committed to reviewing and analyzing incidental take authorization requests as required by the MMPA.

Comment (295): One commenter stated that a 5-year window is far too long a timeframe for the rule, the mechanisms to adjust policy within the timeframe are not robust enough, and the burden of evidence required to initiate an action is not strong enough.

Response: The MMPA, not FWS, establishes the maximum duration of ITRs.

Comment (296): One commenter stated they opposed the proposed ITR because it would permit oil workers to “shoot and kill” an orphaned polar bear cub rather than contacting authorizes for a rescue response (bringing the cub into captivity).

Our Response: The commenter is incorrect. ITRs do not authorize intentional take.

Comment (297): One commenter argued that the FWS cannot accurately model incidental take baselines or establish meaningful take limits without accounting for systematic underreporting of marine mammal bycatch and prohibited take by forced labor fishing operations in overlapping waters. They recommended that the FWS (1) evaluate whether incidental take baseline data incorporates reporting from vessels or fleets documented under

DOL TVPRA, NOAA IUU, or UFLPA forced labor findings; (2) coordinate with NOAA Fisheries, CBP, and DOL ILAB to cross-reference forced labor vessel lists against take monitoring datasets; (3) require that LOAs issued under this rule include supply chain and vessel labor compliance certifications for commercial fishing operations; (4) revise the environmental baseline to account for systematic underreporting risk from forced labor fleets in overlapping geographic areas. They stated that the Foundations for Evidence-Based Policymaking Act (44 U.S.C. 3520) requires that Federal data support sound causal analysis, and incidental take modeling that does not account for systematic reporting suppression in forced labor fishing environments cannot support valid causal conclusions about polar bear and walrus population impacts.

Our Response: There are no commercial fisheries in the specified geographic area of the proposed activities.

Comment (298): Some commenters expressed concerns about the overall environmental impacts of the specified activities. Commenters referenced the impacts of potential oil spills, increased vessel and aircraft traffic, and habitat fragmentation on Arctic ecosystems and the effects of carbon emissions resulting from fossil fuel development on climate change that affects polar bear and walrus populations. One commenter stated the proposed ITR ignored effects on numerous other organisms and numerous sensitive components of the Arctic environment.

Our Response: In these ITRs, the FWS evaluates the potential impacts to our trust species (polar bears and walruses) from the specified activities. We conduct this evaluation while considering the baseline of existing impacts, which takes into account current stressors on the stocks.

Comment (299): Several commenters expressed concern with the potential for industrial activities to run over maternal polar bear dens, thereby crushing polar bear families.

Our Response: The FWS’s analytical methods incorporate information on the likely distribution of dens and their phenology to assess the likelihood of maternal dens being negatively affected. We have also considered the possibility of dens being run over by high-intensity seismic operations and found the probability of den being run over to be extremely low (i.e., ≤ 0.005).

Comment (300): Many commenters stated that the proposed ITR would result in deaths of walruses and polar bears and expressed their opposition to

any animals being killed for the sake of oil and gas activities.

Our Response: The FWS does not anticipate lethal take of polar bears or walruses as a result of the specified activities.

Comment (301): Some commenters believed the term “take” meant only “kill” and interpreted incidental take estimates as estimates of mortality that would result from the specified activity.

Our Response: The FWS refers to “take” in a manner consistent with the MMPA’s definition of that term. The only form of take anticipated to result from the specified activities is harassment, the effects of the anticipated harassment are predominately limited to disruptions to behavioral patterns.

Comment (302): One commenter stated that because the proposed authorization originates from a request by extractive industries seeking regulatory approval to disturb protected marine mammals, it is essential that the FWS apply the MMPA’s conservation standards with independence, scientific rigor, and precaution.

Our Response: Regardless of the source of an incidental take authorization request, the FWS must comply with MMPA statutory requirements when authorizing incidental take.

Comment (303): The requester suggests that the FWS used a precautionary approach, which they suggest is contrary to the mandates of the MMPA.

Our Response: The FWS renders its MMPA finding based on best available scientific evidence, not a precautionary principle. Here, the best available scientific evidence includes qualitative considerations and reporting data from analogous North Slope oil and gas activities.

Required Determinations

National Environmental Policy Act (NEPA)

The FWS has prepared an EA in accordance with the NEPA (42 U.S.C. 4321 *et seq.*). The FWS has concluded that the proposed action of issuing the ITRs would not significantly affect the quality of the human environment, and, thus, preparation of an environmental impact statement for these ITRs is not required by section 102(2) of NEPA or its implementing regulations. A copy of the EA can be obtained from the locations specified above in **ADDRESSES**.

Endangered Species Act (ESA)

Under the ESA (16 U.S.C. 1536(a)(2)), all Federal agencies are required to

ensure the actions they authorize are not likely to jeopardize the continued existence of any threatened or endangered species or result in destruction or adverse modification of critical habitat. Prior to finalizing these ITRs, the FWS completed intra-Service consultation under section 7 of the ESA on our proposed issuance of the ITRs.

Government-to-Government Consultation

It is our responsibility to communicate and work directly on a Government-to-Government basis with federally recognized Alaska Native Tribes and organizations in developing programs for healthy ecosystems. We seek their full and meaningful participation in evaluating and addressing conservation concerns for protected species. It is our goal to remain sensitive to Alaska Native culture and to make information available to Alaska Natives. Our efforts are guided by E.O. 13175, "Consultation and Coordination With Indian Tribal Governments," 512 DM 5, "Procedures for Consultation with Indian Tribes," 512 DM 6, "Department of the Interior Policy on Consultation with Alaska Native Claims Settlement Act Corporations," 510 FW 1, "The Service's Native American Policy," and 510 FW 2, "The Service's Alaska Native Relations Policy."

The FWS has evaluated possible effects of the specified activities on federally recognized Alaska Native Tribes and organizations. The applicant has presented a communication process, culminating in POCs if needed, with the Alaska Native organizations and communities most likely to be affected by their work. The FWS does not anticipate impacts to Alaska Native Tribes or Alaska Native Claims Settlement Act corporations and does not anticipate requesting consultation; however, we invite continued discussion, either about the project and its impacts or about our coordination and information exchange throughout the ITR/POC process.

Regulatory Planning and Review—E.O.s 12866, 14192, and 13563

E.O. 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the OMB will review all significant rules. OIRA has determined that this rule is significant under section 3(f) of E.O. 12866.

E.O. 14192 aims to reduce the cost and burden of Federal regulations by requiring agencies to identify ten prior regulations for elimination for each new regulation issued. This final rule is an E.O. 14192 deregulatory action. The

promulgation of incidental take regulations under MMPA section 101(a)(5)(A) of the MMPA allows an otherwise prohibited action (*i.e.*, the incidental taking of marine mammals), which increases flexibility and reduces burden.

DOI has considered the impacts of the rule. The MMPA prohibits the harassment of marine mammals. Therefore, the baseline without these regulations would be the full regulatory burden of the MMPA, including enforcement of prohibited take. Upon promulgation of these regulations, applicants may apply for letters of authorization that would ease the regulatory burden of the MMPA prohibition of harassment, allowing the LOA holder to incidentally harass polar bears and walruses during their specified activities. Costs for Industry will be related to but not necessarily limited to: the development of requests for LOAs; monitoring, recordkeeping, and reporting activities conducted during year-round oil and gas industry activities; development of activity- and species-specific marine mammal monitoring and mitigation plans; and coordination with Alaska Natives to minimize effects of operations on subsistence hunting.

Implementing the mitigation measures and monitoring and reporting requirements identified in the proposed ITR may have economic impacts on AOGA. Oil and gas exploration, production, or development activities may need to be halted, postponed, or modified to prevent impacts to polar bears or walruses. For example, tundra travel may need to be diverted if a polar bear den is located nearby. The specific impacts and the associated costs are dependent on the activity and cannot be determined in advance. Typically, project modifications due to mitigation measures would constitute only a small portion of the cost of operations.

Issuance of an ITR may also avoid some negative economic impacts to AOGA. With this ITR, AOGA members companies avoid costs from pursuing individual Incidental Take Authorizations, which could include separate Incidental Take Regulations or Incidental Harassment Authorizations. Incidental take occurring without an ITR in place would be in violation of the MMPA (and perhaps the ESA, if the elements of take as defined under the ESA are also met). AOGA could incur the penalties allowed by these laws, including financial damages. Issuance of an ITR will authorize incidental take that occurs in compliance with the ITR and therefore limits potential ESA and

MMPA violations and associated penalties.

We expect issuance of the ITR to have no significant impacts on Pacific walruses or the SBS stock of polar bears for the following reasons: (1) the take of only a small number of walruses (*i.e.*, up to 20 annually; up to 100 over 5 years) and SBS polar bears (*i.e.*, up to 49 annually; up to 209 over 5 years) would be authorized; (2) these takes are anticipated to cause only short-term, temporary, and minor impacts on individual polar bears and walruses; (3) these takes are not anticipated to adversely affect the SBS polar bear stock or the Pacific walrus population through effects on annual rates on recruitment or survival, and would not have population-level effects on Pacific walruses or the SBS stock of polar bears; and (4) any adverse impacts caused by implementing ITR-required mitigation, monitoring and reporting would be negligible. Other wildlife may benefit from some of the measures included by AOGA in their project design, but such beneficial impacts would be negligible.

The actual costs to develop the petition for promulgation of regulations and LOA requests fall short of the threshold under section 3(f)(1) of E.O. 12866 that would require preparation of a regulatory impact analysis under section 6(a)(3)(C) of E.O. 12866.

E.O. 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the Nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. E.O. 13563 directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. The FWS has developed this rule in a manner consistent with these requirements.

Small Business Regulatory Enforcement Fairness Act

OIRA has determined that this rule is not a major rule under 5 U.S.C. 804(2), subtitle E of the Small Business Regulatory Enforcement Fairness Act.

Regulatory Flexibility Act

The FWS has determined that this rule will not have a significant economic effect on a substantial number of small entities under the Regulatory

Flexibility Act (5 U.S.C. 601 *et seq.*). The AOGA and their affiliated parties conducting oil and gas industry activities in the Beaufort Sea and North Slope of Alaska are the only entities subject to these ITRs. Therefore, neither a regulatory flexibility analysis nor a small entity compliance guide is required.

Takings Implications

This rule does not have takings implications under E.O. 12630 because the ITR process is voluntary and serves to exempt applicants from certain civil liability under the MMPA as long as they operate in compliance with the terms of their LOAs. Therefore, a takings implications assessment is not required.

Federalism Effects

This rule does not contain policies with federalism implications sufficient to warrant preparation of a federalism assessment under E.O. 13132. The MMPA gives the FWS the authority and responsibility to protect polar bears and walruses.

Unfunded Mandates Reform Act

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), this rule will not “significantly or uniquely” affect small governments. A small government agency plan is not required. The FWS has determined and certifies pursuant to the Unfunded Mandates Reform Act that this rulemaking will not impose a cost of \$100 million or more, adjusted for inflation, in any given year on local or State governments or private entities. This rule also will not produce a Federal mandate of \$100 million or greater, adjusted for inflation, in any year, *i.e.*, it is not a “significant regulatory action” under the Unfunded Mandates Reform Act.

Civil Justice Reform

The Departmental Solicitor’s Office has determined that this rule will not unduly burden the judicial system and meets the applicable standards provided in sections 3(a) and 3(b)(2) of E.O. 12988.

Paperwork Reduction Act

This rule does not contain any new collection of information that require approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501 *et seq.*). All information collections under the PRA require OMB approval. We may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB

control number. OMB previously approved the information collection requirements associated with incidental take in the identified subparts and assigned the following control numbers:

- 1018–0070, Incidental Take of Marine Mammals During Specified Activities (50 CFR 18.27 and 50 CFR 18, Subpart J) (expires 08/31/2028), and
- 1018–0203, Incidental Take of Marine Mammals During Specified Activities (50 CFR 18.27 and 50 CFR 18, Subpart L) (expires 08/31/2028).

Energy Effects

E.O. 13211 requires agencies to prepare statements of energy effects when undertaking certain actions. This rule provides exceptions from the MMPA’s taking prohibitions for entities engaged in specified oil and gas industry activities in the specified geographic region. By providing certainty regarding compliance with the MMPA, this rule will have a positive effect on the oil and gas industry activities. Although the rule requires an applicant to take a number of actions, these actions have been undertaken by oil and gas industry activities for many years as part of similar past regulations. Therefore, this rule is not expected to significantly affect energy supplies, distribution, or use and does not constitute a significant energy action. No statement of energy effects is required.

References

For a list of the references cited in this rule, see Docket No. FWS–R7–ES–2026–0694, available at <https://www.regulations.gov>.

List of Subjects in 50 CFR Part 18

Administrative practice and procedure, Alaska, Imports, Indians, Marine mammals, Oil and gas exploration, Reporting and recordkeeping requirements, Transportation.

Signing Authority

Kevin Lilly, Assistant Secretary for Fish and Wildlife and Parks, approved this action on August 25, 2026, for publication. On October 14, 2026, Kevin Lilly authorized the undersigned to sign the document electronically and submit it to the Office of the Federal Register for publication as an official document of the U.S. Fish and Wildlife Service.

Regulation Promulgation

For the reasons set forth in the preamble, the FWS amends part 18, subchapter B of chapter 1, title 50 of the Code of Federal Regulations as set forth below.

PART 18—MARINE MAMMALS

- 1. The authority citation of 50 CFR Part 18 continues to read as follows:

Authority: 16 U.S.C. 1361 *et seq.*

- 2. Amend part 18 by adding subpart J to read as follows:

Subpart J—Taking of Marine Mammals Incidental to Oil and Gas Exploration, Development, and Production Activities in the Beaufort Sea and Adjacent Northern Coast of Alaska

Sec.

- 18.119 Specified activities covered by this subpart.
- 18.120 Specified geographic region where this subpart applies.
- 18.121 Dates this subpart is in effect.
- 18.122 Procedure to obtain a letter of authorization (LOA).
- 18.123 How the FWS will evaluate a request for an LOA.
- 18.124 Authorized take allowed under an LOA.
- 18.125 Prohibited take under an LOA.
- 18.126 Mitigation.
- 18.127 Monitoring.
- 18.128 Reporting requirements.
- 18.129 Information collection requirements.

§ 18.119 Specified activities covered by this subpart.

This subpart applies to the incidental, but not intentional, take of small numbers of polar bears and Pacific walruses (hereafter walruses) by certain U.S. citizens while engaged in oil and gas exploration, development, production, and transportation activities in the Beaufort Sea and adjacent northern coast of Alaska. A letter of authorization (LOA) from the FWS is required to authorize incidental take that may occur during the specified activities. The entities described in § 18.122 may request an LOA pursuant to the regulations in this subpart.

§ 18.120 Specified geographic region where this subpart applies.

This subpart applies to the specified geographic region that encompasses all Beaufort Sea waters east of a north-south line through Point Barrow, Alaska (latitude 71.39139° N, longitude 156.475° W; Board on Geographic Names (BGN) 1944), and 80.5 kilometer (km) (50 miles (mi)) north of Point Barrow, including Alaska State waters and Outer Continental Shelf waters, and east of that line to the Canadian border.

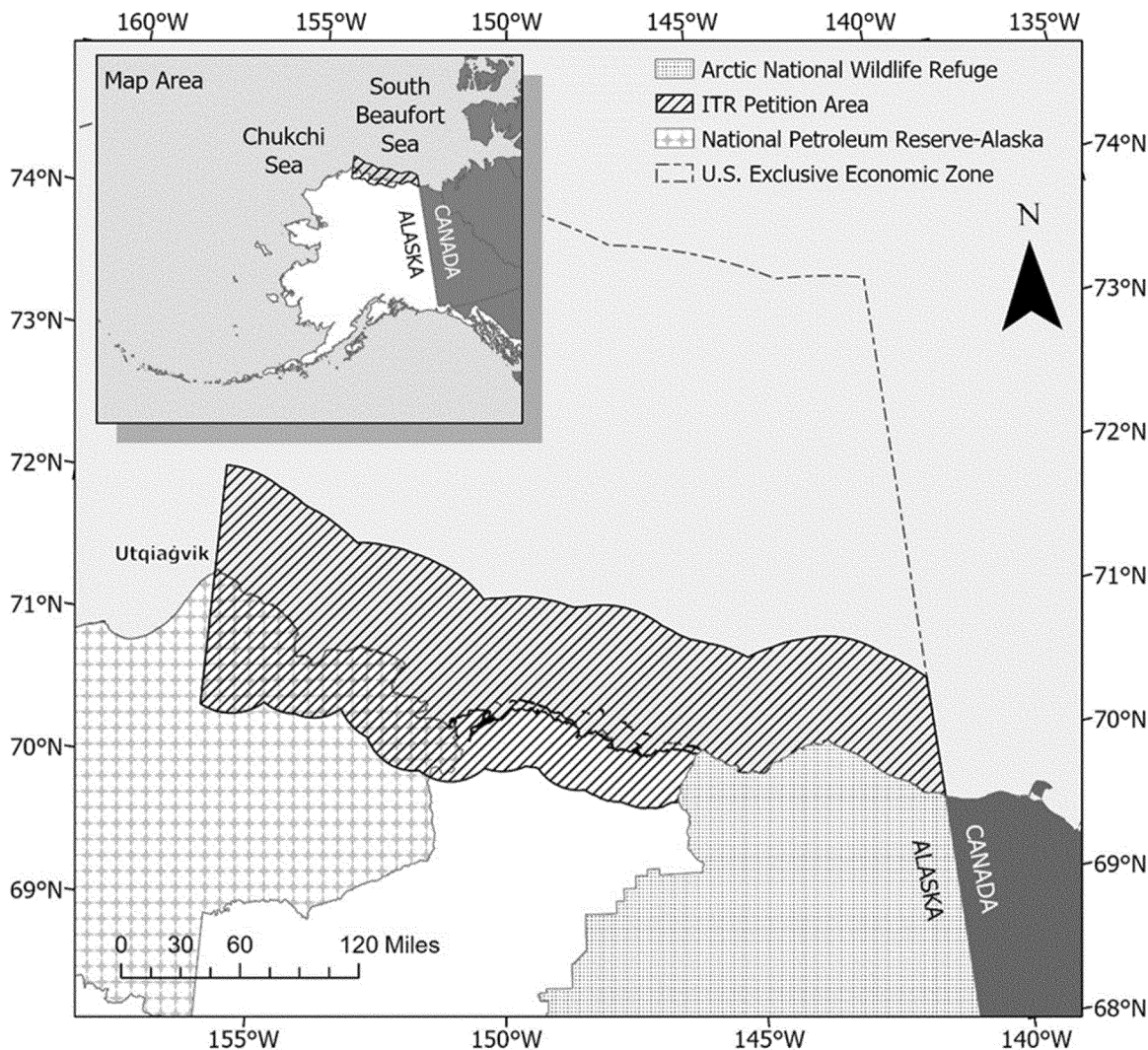
(a) The offshore boundary of the Beaufort Sea incidental take regulations (ITR) region extends 80.5 km (50 mi) offshore. The onshore region is the same north/south line at Utqiagvik, 40.2 km (25 mi) inland and east to the Canning River.

(b) Lands and waters within the exterior boundaries of the Arctic National Wildlife Refuge are not included in the Beaufort Sea ITR region.

Figure 1 shows the area where this subpart applies.

BILLING CODE 4333-15-P

Figure 1 to § 18.120—Map of the Beaufort Sea ITR Region



BILLING CODE 4333-15-C

§ 18.121 Dates this subpart is in effect.

This subpart is effective from October 19, 2026, through October 19, 2031, for year-round oil and gas exploration, development, production, and associated transportation activities.

§ 18.122 Procedure to obtain a letter of authorization (LOA).

(a) An applicant must be a U.S. citizen as defined in § 18.27(c) and among:

- (1) Those entities specified in the request for this rule as set forth in paragraph (b) of this section;
- (2) Any of their corporate affiliates; or
- (3) Any of their respective contractors, subcontractors, partners, owners, co-lessees, designees, or successors-in-interest.

(b) The entities specified in the request (as modified) are the Alaska Oil and Gas Association, which includes Alyeska Pipeline Service Company; BlueCrest Energy, Inc.; Chevron Corporation; ConocoPhillips Alaska, Inc. (CPAI); ExxonMobil Alaska Production, Inc. (ExxonMobil); Finnex; Furie Operating Alaska, LLC; Glacier Oil and Gas Corporation (Glacier); Hilcorp Alaska, LLC and Hilcorp North Slope, LLC (Hilcorp); Marathon Petroleum Corporation; Petro Star Inc.; Repsol; Santos; Shell Exploration and Production Company (Shell); APA Corporation; and 8 Star Alaska, LLC (a non-member company).

(c) Request for LOAs must be submitted to the FWS's Alaska Region Marine Mammals Management (MMM) Office, MS 341, 1011 East Tudor Road,

Anchorage, Alaska 99503, at least 90 days prior to the start of the activity.

(d) The request for an LOA must comply with the requirements set forth in §§ 18.126 through 18.128 and must include the following information:

(1) An operational plan that describes in detail the activity (e.g., type of project, methods, and types and numbers of equipment and personnel), the dates and duration of the activity, and the specific locations affected by the activity;

(2) A site-specific walrus and polar bear safety, awareness, and interaction plan; the plan for each activity and location will detail the policies and procedures that will provide for the safety and awareness of personnel, avoid interactions with walrus and

polar bears, and minimize impacts to these animals;

(3) A site-specific marine mammal monitoring and mitigation plan to monitor and mitigate the effects of the activity on walruses and polar bears; and

(4) If necessary, a plan of cooperation (POC) to mitigate potential conflicts between the activity and subsistence hunting.

(i) In a POC, applicants must provide documentation of communication with potentially affected subsistence communities along the Beaufort Sea coast (*i.e.*, Kaktovik, Nuiqsut, and Utqiagvik) and appropriate subsistence user organizations (*i.e.*, the Alaska Nannut Co-Management Council, the Eskimo Walrus Commission, or North Slope Borough) to discuss the location, timing, and methods of activities and identify and mitigate any potential conflicts with subsistence walrus and polar bear hunting activities. Applicants must specifically inquire of relevant communities and organizations if the activity will interfere with the availability of walruses and/or polar bears for the subsistence use of those groups.

(ii) Documentation must include a summary of any concerns identified by community members and hunter organizations and the applicant's responses to identified concerns.

§ 18.123 How the FWS will evaluate a request for an LOA.

We will evaluate each request for an LOA based on the specific activity and the specific geographic location. We will determine whether the level of activity identified in the request exceeds that analyzed by us in considering the number of animals estimated to be taken and evaluating whether there will be a negligible impact on the species or stock and an unmitigable adverse impact on the availability of the species or stock for subsistence uses. If the level of the operator's activity is within the level of activity already analyzed by us, we will grant the LOA without further analysis. If the level of activity is greater, we may request further information but will not require additional data requirements beyond those required by § 18.22(d). We will reevaluate our findings to determine if those findings continue to be appropriate based on the combined estimated take of the greater level of activity that the applicant has requested and all other activities proposed during the time of the activities in the LOA request. Depending on the results of the evaluation, we may grant the LOA, add further conditions, or deny the LOA request.

§ 18.124 Authorized take allowed under an LOA.

(a) To incidentally take marine mammals pursuant to this subpart, the applicant must apply for and obtain an LOA in accordance with §§ 18.27(f) and 18.122.

(b) An LOA issued under this subpart allows for the incidental take, as defined under section 3 of the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1362), of walruses and/or polar bears during activities specified in § 18.119 within the Beaufort Sea ITR region described in § 18.120.

(c) Each LOA will set forth:

(1) Permissible methods of incidental take;

(2) Means of effecting the least practicable adverse impact (*i.e.*, mitigation) on the species, its habitat, and the availability of the species for subsistence uses; and

(3) Requirements for monitoring and reporting.

§ 18.125 Prohibited take under an LOA.

(a) Any incidental take that fails to comply with the regulations in this subpart or with the terms and conditions of an LOA remain prohibited. This subpart does not authorize any intentional take.

(b) If specified activities cause unauthorized take, the holder of an LOA must:

(1) Cease activities immediately (or reduce activities to the minimum level necessary to maintain safety) and report the details of the incident within 48 hours to the FWS MMM office at 1-907-786-3800 (business hours); and

(2) Suspend further activities until the FWS has reviewed the circumstances, determined whether additional mitigation measures are necessary to avoid further unauthorized taking, and notified the LOA holder that project activities may resume.

§ 18.126 Mitigation.

(a) *Mitigation measures for all LOAs.* Holders of an LOA must implement policies and procedures to conduct activities in a manner that effects the least practicable adverse impact on walruses and/or polar bears, their habitat, and the availability of these marine mammals for subsistence uses. Adaptive management practices, such as temporal or spatial activity restrictions in response to the presence of marine mammals in a particular place or time or the occurrence of walruses and/or polar bears engaged in a biologically significant activity (*e.g.*, resting, feeding, denning, or nursing, among others), must be used to avoid interactions with and minimize impacts to these animals

and their availability for subsistence uses. All holders of an LOA must:

(1) Cooperate with the FWS's MMM Office and other designated Federal, State, and local agencies to monitor and mitigate the impacts of activities on walruses and polar bears. Where information is insufficient to evaluate the potential effects of activities on walruses, polar bears, and the subsistence use of this species, holders of an LOA may be required to participate in joint monitoring and/or research efforts to address these information needs and ensure the least practicable adverse impact to these resources.

(2) Designate trained and qualified personnel to monitor for the presence of walruses and polar bears, initiate mitigation measures, and monitor, record, and report the effects of the activities on walruses and/or polar bears.

(3) Have an approved walrus and polar bear safety, awareness, and interaction plan on file with the FWS's MMM Office and onsite and provide polar bear awareness training to certain personnel prior to their participation in the activities. Interaction plans must include:

(i) The type of activity and where and when the activity will occur (*i.e.*, a summary of the plan of operation);

(ii) A food, waste, and other "bear attractants" management plan;

(iii) Personnel training policies, procedures, and materials;

(iv) Site-specific walrus and polar bear interaction risk evaluation and mitigation measures;

(v) Walrus and polar bear avoidance and encounter procedures; and

(vi) Walrus and polar bear observation and reporting procedures.

(b) *Mitigation measures for onshore activities.* Holders of an LOA must undertake the following activities to limit disturbance around known polar bear dens:

(1) *Attempt to locate polar bear dens.* Holders of an LOA seeking to carry out onshore activities during the denning season (November–April) must conduct surveys for occupied polar bear dens in all denning habitat within 1.6 km (1 mi) of specified activities using aerial infrared (AIR) imagery. The applicant must conduct at least two such surveys in high and medium density denning zones and at least one such survey in other onshore project areas.

(i) Where one or two AIR surveys are required, the first survey must occur between November 25 and December 25 and the second survey must occur between December 15 and January 15. At least 24 hours must pass between the

completion of a required survey and the beginning of a subsequent required survey.

(ii) AIR surveys will be conducted during darkness or civil twilight and not during daylight hours. Ideal environmental conditions during surveys would be clear, calm, and cold; AIR detection should not be conducted when precipitation or other atmospheric conditions substantially degrade thermal imaging quality or the ability to reliably detect polar bear dens. Flight crews will record and report environmental parameters including air temperatures, dew point, wind speed and direction, cloud ceiling, and percent humidity, and a flight log will be provided to the FWS within 48 hours of the flight.

(iii) A scientist experienced in interpreting AIR imagery will be on board the survey aircraft to analyze the AIR data in real-time. The data (infrared video) will be made available for viewing by the FWS immediately upon return of the survey aircraft to the base of operations.

(iv) All observed or suspected polar bear dens must be reported to the FWS prior to the initiation of activities.

(2) *Observe 1-mile operational mitigation zone around known polar bear dens.* Operators must observe a 1.6-km (1-mi) operational mitigation zone around all known or suspected polar bear dens during the denning season (November–April, or until the female and cubs leave the areas). Should previously unknown occupied dens be discovered within 1.6 km (1 mi) of activities, the FWS must be contacted for guidance. The FWS will evaluate these instances on a case-by-case basis to determine the appropriate action. Potential actions may range from cessation or modification of work to conducting additional monitoring, and the holder of the LOA must comply with any additional measures specified.

(3) *Use the den habitat map developed by the U.S. Geological Survey (USGS).* To determine the areas that require surveys, operators must use the map of suitable coastal polar bear denning habitat developed by USGS: <https://data.usgs.gov/datacatalog/search?otherKeyword=%5B%22Denning%20habitat%22%5D>. Doing so will inform LOA holders of the potential locations of polar bear dens for consideration when conducting activities in the coastal areas.

(4) *Observe polar bear den restrictions.* Restrict the timing of the activity to limit disturbance around known or suspected dens.

(5) *Observe den emergence restrictions.* If a female and cubs of the

year are observed during the den emergence period (February–April), LOA holders must immediately halt or delay any activities that could impede the polar bears' path to the sea ice. LOA holders must also notify the FWS and personnel conducting operations between the female and cubs and the coastline.

(c) *Mitigation measures for operational and support vessels.* Holders of an LOA must implement the following measures:

(1) Operational and support vessels must be staffed with dedicated marine mammal observers to alert crew of the presence of walrus and polar bears and initiate adaptive mitigation responses.

(2) At all times, vessels must maintain the maximum distance practicable (805-meter (m) (0.5 mi) or greater) from concentrations of walrus or polar bears. Under no circumstances, other than an emergency, should any vessel approach within an 805-meter (m) (0.5-mi) radius of walrus or polar bears observed on land or ice.

(3) Vessel operators must take every precaution to avoid harassment of concentrations of feeding walrus when a vessel is operating near these animals. Vessels should reduce speed and maintain a minimum 805-m (0.5-mi) operational exclusion zone around feeding walrus groups. Vessels may not be operated in such a way as to separate members of a group of walrus (*i.e.*, greater than two) from other members of the group. When weather conditions require, such as when visibility drops, vessels should adjust speed accordingly to avoid the likelihood of injury to walrus.

(4) All vessels must avoid areas of active or anticipated walrus or polar bear subsistence hunting activity as determined through community consultations.

(5) In association with marine activities, we may require trained marine mammal monitors on the site of the activity or onboard ships, aircraft, icebreakers, or other support vessels or vehicles to monitor the impacts of oil and gas industry activity on polar bears and walrus.

(d) *Mitigation measures for aircraft to avoid disturbance.* Holders of an LOA must implement the following measures:

(1) *Follow aircraft elevation and flight path restrictions.* Operators of support aircraft shall, at all times, conduct their activities at the maximum distance practicable from concentrations of walrus or polar bears.

(i) Aircraft operations within the project area will maintain a minimum

altitude of 457 m (1,500 feet (ft)) above ground level when safe and operationally possible.

(ii) Under no circumstances, other than an emergency, will aircraft operate at an altitude lower than 457 m (1,500 ft) within 805 m (0.5 mi) of known or suspected polar bear dens or walrus or polar bears observed on ice or land measured in a straight line between the animal and the ground directly underneath the aircraft. Helicopters may not hover or circle above such areas or within 805 m (0.5 mi) of such areas. Aircraft may be operated below 457 m (1,500 ft) only when necessary to avoid adverse weather conditions or when operationally necessary. However, when weather conditions necessitate operation of aircraft at altitudes below 457 m (1,500 ft), the operator must avoid areas of known walrus and polar bear concentrations and should take precautions to avoid flying directly over or within 805 m (0.5 mi) of these areas.

(iii) Operators must plan all aircraft routes to minimize any potential conflict with active or anticipated walrus or polar bear hunting activity as determined through community consultations.

(2) *Follow aircraft landing and take-off spatial restrictions.* Aircraft will not land within 805 m (0.5 mi) of walrus or polar bears. If a polar bear is observed while the aircraft is grounded in remote areas, personnel will board the aircraft and leave the area. The aircraft operator will also avoid flying over the polar bear if possible. Operators should avoid making any sudden maneuvers, especially when traveling at lower altitudes, even if such maneuvers are intended to avoid walrus or polar bears. If a polar bear is observed within the landing zone or work area, operators should travel away from the site and slowly increase altitude to 457 m (1,500 ft) or a level that is safest and viable given current traveling conditions. Aircraft may not be operated in such a way as to separate individual walrus or polar bears from a group (*i.e.*, two or more animals).

(e) *Mitigation measures for the subsistence use of walrus and polar bears.* Holders of an LOA must conduct their activities in a manner that, to the greatest extent practicable, minimizes adverse impacts on the availability of walrus and polar bears for subsistence uses.

(1) *Community consultation.* Prior to receipt of an LOA, applicants must consult with potentially affected communities and appropriate subsistence user organizations to discuss potential conflicts with subsistence walrus and polar bear

hunting caused by the location, timing, and methods of operations and support activities. If community concerns suggest that the activities may have an adverse impact on the subsistence uses of these species, the applicant must address conflict avoidance issues through a POC as described in paragraph (e)(2) of this section.

(2) *Plan of cooperation.* Based on community consultations, the holder of an LOA will be required to modify their POC as needed if directed by the FWS.

(i) The POC must include a description of the procedures by which the holder of the LOA will work and consult with potentially affected subsistence hunters and a description of specific measures that have been or will be taken to avoid or minimize interference with subsistence hunting of walrus and polar bears and to ensure continued availability of the species for subsistence use.

(ii) The FWS will review the POC to ensure that any potential adverse effects on the availability of the animals are minimized. The FWS will reject or require modification of POCs if they do not provide adequate safeguards to ensure the least practicable adverse impact on the availability of walrus and polar bears for subsistence use.

§ 18.127 Monitoring.

Holders of an LOA must develop and implement a site-specific, FWS-approved marine mammal monitoring and mitigation plan to monitor and evaluate the effectiveness of mitigation measures and the effects of activities on walrus, polar bears, and the subsistence use of these species and provide trained, qualified, and FWS-approved onsite observers to carry out the activities identified in the marine mammal monitoring and mitigation plan.

§ 18.128 Reporting requirements.

Holders of an LOA must report the results of monitoring and mitigation activities to the FWS's MMM Office via email at: fw7_mmm_reports@fws.gov.

(a) *In-season monitoring reports*—(1) *Activity progress reports.* Holders of an LOA must:

- (i) Notify the FWS at least 48 hours prior to the onset of activities;
- (ii) Provide the FWS weekly progress reports of any significant changes in activities and/or locations; and
- (iii) Notify the FWS within 48 hours after ending of activities.

(2) *Walrus observation reports.*

Holders of an LOA must report, on a weekly basis, all observations of walrus during any industry activity. Upon request, monitoring report data

must be provided in a common electronic format (to be specified by the FWS). Information in the observation report must include, but is not limited to:

- (i) Date and time of the observation;
- (ii) Locations of the observer and walrus (GPS coordinates if possible);
- (iii) Number of walrus;
- (iv) Sex and age class of walrus (if known);
- (v) Observer name and contact information;
- (vi) Weather, visibility, and if at sea, sea state, and sea-ice conditions at the time of the observation;
- (vii) Estimated distance of walrus at closest approach;
- (viii) Industry activity at time of the observation;
- (ix) Walrus behavior;
- (x) Description of the observation;
- (xi) Duration of the observation; and
- (xii) Mitigation actions taken.

(3) *Polar bear observation reports.*

Holders of an LOA must report, within 48 hours, all observations of polar bears and potential polar bear dens, during any industry activity. Upon request, monitoring report data must be provided in a common electronic format (to be specified by the FWS).

Information in the observation report must include, but is not limited to:

- (i) Date and time of the observation;
- (ii) Locations of the observer and polar bears (GPS coordinates if possible);
- (iii) Number of polar bears;
- (iv) Sex and age class of polar bears (if known);
- (v) Observer name and contact information;
- (vi) Weather, visibility, and if at sea, sea state, and sea-ice conditions at the time of the observation;
- (vii) Estimated closest distance of polar bears from personnel and facilities;
- (viii) Industry activity at time of the observation;
- (ix) Possible attractants present;
- (x) Polar bear behavior;
- (xi) Description of the observation;
- (xii) Duration of the observation; and
- (xiii) Mitigation actions taken.

(b) *Notification of LOA incident report.* Holders of an LOA must report, as soon as possible, but within 48 hours, all LOA incidents during any industry activity. An LOA incident is any situation in which specified activities exceed the authority of an LOA, a mitigation measure was required but not enacted, or injury or death of a walrus or polar bear occurs.

(1) Reports must include all information specified for an observation report, a complete detailed description

of the incident, and any other actions taken.

(2) Injured, dead, or distressed walrus or polar bears that are clearly not associated with the specified activities (e.g., animals found outside the project area, previously wounded animals, or carcasses with moderate to advanced decomposition or scavenger damage) must also be reported to the FWS immediately, and not later than 48 hours after discovery. Photographs, video, location information, or any other available documentation must be included.

(c) *Final report.* The results of monitoring and mitigation efforts identified in the marine mammal monitoring and mitigation plan must be submitted to the FWS for review within 90 days of the expiration of an LOA. Upon request, final report data must be provided in a common electronic format (to be specified by the FWS). Information in the final report must include, but is not limited to:

(1) Copies of all observation reports submitted under the LOA;

(2) A summary of the observation reports;

(3) A summary of monitoring and mitigation efforts including areas, total hours, total distances, and distribution;

(4) Analysis of factors affecting the visibility and detectability of walrus and polar bears during monitoring;

(5) Analysis of the effectiveness of mitigation measures;

(6) Analysis of the distribution, abundance, and behavior of walrus and/or polar bears observed; and

(7) Estimates of take in relation to the specified activities.

§ 18.129 Information collection requirements.

OMB has approved the collection of information contained in this subpart and assigned OMB control number 1018-0070. We may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Direct comments regarding the burden estimate or any other aspect of this requirement to the Information Collection Clearance Officer, U.S. Fish and Wildlife Service, at the address listed in 50 CFR part 2.1.

Brian Nesvik,

Director, U.S. Fish and Wildlife Service.

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