

Executive Summary

The director of the Division of Oil and Gas (DO&G), with consent of the State of Alaska Department of Natural Resources (DNR) commissioner, determines whether issuing an oil and gas exploration license serves the state's best interests (AS 38.05.133(f)). This document presents the director's written finding for the disposal of an oil and gas exploration license in the Southwest Cook Inlet license area, located on the west side of lower Cook Inlet, encompassing the Iniskin Peninsula and surrounding areas. All relevant facts and issues within the scope of review that were known or made known to the director were reviewed. The director limited the scope of the finding to the disposal and exploration phases of oil and gas activities and the reasonably foreseeable significant effects of issuing an exploration license (AS 38.05.133(f); AS 38.05.035(e)(1)(A); and AS 38.05.035(e)(1)(C)(ii) and (iii)). The content of the best interest findings is specified in AS 38.05.035(e), and matters that must be considered and discussed are found in AS 38.05.035(g) and AS 38.05.133(f).

A. Director's Decisions

After weighing the facts and issues known at this time, considering applicable laws and regulations, and balancing the potential positive and negative effects given the mitigation measures and other regulatory protections, the director finds the potential benefits of issuing an exploration license, and approving the exploration phase, outweigh the possible negative effects. The director finds that issuing an oil and gas exploration license to the winner of the competitive bid process for the license is in the best interests of the State of Alaska. The full director's decision can be found in Chapter One.

B. Exploration Licensing

The intent of oil and gas licensing is to encourage exploration in areas far from existing infrastructure, with relatively low or unknown hydrocarbon potential, and where there is a higher investment risk to the operator. An exploration license will give the successful licensee the exclusive right to explore for oil and gas without the initial expense of leasing bonuses. Through exploration licensing, the state receives valuable subsurface geologic information and, should development occur, revenue through royalties and taxes. Additionally, any reserves discovered could provide a source of energy for local consumption. Exploration licensing is discussed in further detail in Chapter Two.

Oil and gas activities proceed in phases, with the activities of each subsequent phase dependent on the completion or initiation of the preceding phase. While the state holds oil and gas lease sales in established petroleum provinces, like areas of Upper Cook Inlet and the North Slope, an exploration license is the method to initiate oil and gas exploration in other areas of the state. The exploration license disposal phase is a first step in the process of developing the state's oil and gas resources, subsequent to the director's affirmative written finding. An exploration license (Appendix B) grants the licensee the exclusive right to explore for oil and gas and, provided the licensee meets certain conditions, to then convert all or a portion of the license to a lease (Appendix C). An oil and gas lease grants to the lessee the exclusive right to drill for, extract, remove, clean, process, and dispose of oil and gas. However, a plan of operations, subject to all applicable regulatory authorities and permits, must be approved before any operations may be undertaken on or in the licensed or leased area.

With an exploration license, the successful licensee may gather information about the area's petroleum potential. This process may include examining surface geology, performing environmental assessments, conducting geophysical surveys, and drilling exploratory wells. If converted to an oil and gas lease, further exploration may occur. During the development and production phase, operators evaluate the results of exploratory drilling, develop plans to bring the discovery into production, and bring oil or gas to

the surface and prepare it for transport. Additional information regarding exploration licensing can be found in Chapter Six.

C. Description of the Exploration License Area

The exploration license area is approximately 169,000 acres in size, approximately 120 miles south of Tyonek. The exploration license area consists of state-owned, unencumbered lands within T. 3 S., R. 20-22 W., T. 4 S., R. 20-23 W., T. 5 S., R. 21-24 W., T. 6 S., R. 22-25 W., T. 7 S., R. 23-25 W., Seward Meridian. Only free and unencumbered state-owned subsurface mineral estates are included in the oil and gas license. Lands whose subsurface mineral estates are owned by other entities are within the license boundary, but are excluded from the licensed exploration lands.

The southern boundary of the license area is the south edge of Ursus Cove. The license area is bounded by the Saddle Mountain on the north, the Kenai Peninsula Borough boundary on the west, and state owned Cook Inlet marine waters on the south and east. The license area is located on the western side of Cook Inlet across from the City of Homer, and the communities of Anchor Point and Seldovia. Additional information about the area and these communities is found in Chapter Three.

D. Habitat, Fish, and Wildlife

The license area includes terrestrial, freshwater, and marine habitats. Freshwater and anadromous fishes may be found in the area's waters. The license area is seasonally inhabited by migratory birds. Terrestrial habitats support moose, brown and black bears, and furbearers. Marine mammals include beluga, fin, humpback, minke, blue, North Pacific right, sei, and sperm whales, harbor and Dall's porpoises, harbor seals, Stellar sea lions, and northern sea otters. Additional information on species and habitats of the license area is found in Chapter Four.

E. Current and Projected Uses

Commercial guiding, sport fishing and hunting, trapping, and recreation are the major land uses in the license area. Oil and gas exploration and production activities are currently conducted in Cook Inlet within and adjacent to the license area. Additionally the license area is adjacent to Lake Clark National Park, and a proposed overland transportation corridor that would connect Cook Inlet to Bristol Bay. As of 2013, the Alaska Department of Transportation and Public Facilities' Cook Inlet to Bristol Bay corridor project is being reevaluated because of changing levels of state and federal funding for transportation projects. Traditional subsistence hunting, trapping, and fishing occur within the license area. These uses are discussed in more detail in Chapter Five.

F. Oil and Gas in the License Area

The several proven and potential petroleum systems of Cook Inlet provide important insights into the oil and gas resource potential in the Southwest Cook Inlet exploration license area. Commercial production in Cook Inlet comes from two main plays: 1) biogenic natural gas, sourced from Tertiary coals and reservoirs in sandstones of the middle and upper Kenai Group (upper Tyonek, Beluga, and Sterling Formations), and 2) thermogenic oil with minor associated gas, sourced from the Middle Jurassic Tuxedni Group and reservoirs in sandstones of the lower and middle Kenai Group (West Foreland, Hemlock, and lower Tyonek Formations). The most likely method of transportation is by pipeline. Petroleum potential, phases of exploration, conversion of the license to a lease, development, production, and transportation are discussed in Chapter Six.

G. Governmental Powers to Regulate Oil and Gas

All oil and gas activities, including exploration, are subject to numerous federal, state, and local laws and regulations with which the licensee is obligated to comply. These government agencies have broad authority to regulate and condition activities related to oil and gas. Agencies include the Alaska Departments of Natural Resources, Environmental Conservation, and Fish and Game; the Alaska Oil and Gas Conservation Commission; the U.S. Environmental Protection Agency; the U.S. Army Corp of Engineers; the National Marine Fisheries Service; and the U.S. Fish and Wildlife Service. Many of the regulatory and statutory authorities are discussed in Chapter Seven.

H. Reasonably Foreseeable Cumulative Effects of Licensing and Subsequent Activity

Most potentially negative effects on fish and wildlife species, habitats, subsistence, and their uses; on local uses, residents, and property owners; and on local communities may be mitigated through mitigation measures imposed on the exploration license. These measures are listed in Chapter Nine. These provisions, along with other laws and regulations, apply to the license, and to a subsequent lease, if the license is converted to a lease.

Potential oil and gas activities that could have cumulative effects on the area's habitats and fish and wildlife populations include seismic surveys, construction of support facilities, and drilling, production, and transportation activities. Some potential cumulative effects of these activities include physical disturbances that could alter the landscape, lakes, rivers, coastal zone, and wetlands; habitat change; behavior changes of fish, wildlife and birds; drawdowns and contamination of groundwater; and contamination of terrestrial, freshwater, or marine habitats from discharges from well drilling and production, gas blowouts, or spills of hazardous substances.

Oil and gas development could result in increased access to recreation, mining, hunting, and fishing areas due to construction of new access routes, coastline infrastructure, and roads. This could also increase competition among user groups. Exploration and development could decrease the area's visual quality and attraction to tourists and could restrict local access to the area. However, increased access could benefit recreational and visitor uses by increasing the area available for those uses. Other potential benefits from oil and gas development include a potential increase in wage earning opportunities to supplement subsistence activities.

If unregulated, oil and gas activities subsequent to licensing could potentially affect local landowners and surface users, habitats, fish and wildlife, air quality, subsistence, viewshed, recreational, sport, and commercial uses. Local residents' use of the area requires access to it. Activities, facilities, or structures that restrict access could have an adverse impact on local residents, especially if private property is involved. However, access to the area may not be restricted, except immediately around facilities. Mitigation measures included in this written finding, along with laws and regulations imposed by state and federal agencies, are expected to mitigate these potential effects.

Oil and gas activities may also have effects, including fiscal, on communities. Positive potential effects are job creation, a small initial contribution to state revenues, and the potential to use oil and gas to lower energy costs. If the licensee employs local and Alaska residents and contractors for work performed on the licensed area, to the extent they are available and qualified, the multiplier effect may benefit local and state economies. More information about potential effects is found in Chapter Eight.

I. Mitigation Measures

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Mitigation measures address protection of private property; water quality and aquifers; air quality; facilities and operations; habitat, fish, and wildlife; subsistence, commercial, and sport harvest activities; management of fuels, hazardous substances, and wastes; potential spills of hazardous substances; access; prehistoric, historic, and archaeological sites; and local hire, and communication and training. Mitigation measures are found in Chapter Nine.