

# Chapter One: Executive Summary

## Table of Contents

	<b>Page</b>
A. Description of the Lease Sale Area.....	1-1
B. Habitat, Fish, and Wildlife .....	1-1
C. Current and Projected Uses.....	1-2
D. Oil and Gas in Cook Inlet .....	1-2
E. Governmental Powers to Regulate Oil and Gas .....	1-3
F. Reasonably Foreseeable Cumulative Effects of Leasing and Subsequent Activity .....	1-3
G. Fiscal Effects and Effects on Municipalities and Communities .....	1-3
H. Mitigation Measures and Other Regulatory Protections.....	1-4
I. Director’s Final Finding .....	1-4



# Chapter One: Executive Summary

The State of Alaska is offering for lease all available state-owned acreage in Cook Inlet Areawide oil and gas lease sales from 2009-2018. The director of the Department of Natural Resources, Division of Oil and Gas, has made a final finding that holding these lease sales is in the best interest of the state. The director reviewed all facts and issues known or made known to him, and limited the scope of the finding to the lease phase of oil and gas activities and the reasonably foreseeable significant effects of issuing leases (AS 38.05.035(e)(1)(A)). Conditions for phasing have been met under AS 38.05.035(e)(1)(C). The content of best interest findings is specified in AS 38.05.035(e), and topics that must be considered and discussed are prescribed in AS 38.05.035(g).

After weighing the facts and issues known to him 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 has concluded that the potential benefits of lease sales outweigh the possible negative effects, and that Cook Inlet Areawide oil and gas lease sales will be in the best interests of the state of Alaska.

## **A. Description of the Lease Sale Area**

The Cook Inlet area falls within the Matanuska-Susitna Borough, the Municipality of Anchorage, and the Kenai Peninsula Borough. The area's 30 cities, towns, villages, and communities range in population from a few hundred to almost 300,000. Many of the industries and businesses of the area are supported directly or indirectly by natural resources. Industries include fishing, timber, mining, tourism, construction, and petroleum. Local, state and federal governments, non-governmental organizations, health care, and education are also large employers.

Cultural and historic resources include a wide range of sites, deposits, structures, ruins, buildings, graves, artifacts, fossils, and other objects of antiquity. Sites in the area date to prehistoric periods of Dena'ina and Eskimo occupations, and to historic periods of Russian and Euroamerican occupations.

The area is characterized by three climate zones: the maritime zone, continental zone, and transition zone. Cook Inlet itself is a 350 km long estuary and includes 11 watersheds draining major mountain ranges. Snowmelt and glaciers, which cover 11 percent of the land area of the Cook Inlet basin and store massive amounts of water as ice, provide a large portion of the input to area watersheds.

Several geologic hazards exist in the area, including earthquakes, volcanoes, tsunamis, flooding, ice, current, sediment, tides, and coastal erosion. Located in one of the most seismically active regions in the world, the area has several active volcanoes nearby. Despite these conditions, the petroleum industry has functioned in Cook Inlet without significant environmental damage since its beginnings in 1957.

## **B. Habitat, Fish, and Wildlife**

The Cook Inlet area includes a wide variety of habitats and a broad diversity of fish and wildlife that support a host of economic, recreational, and subsistence activities for residents and visitors. Most of the area's habitats and populations of fish and wildlife are healthy because of careful management and regulatory mechanisms in place for development. A few populations have been identified as threatened or endangered under the federal Endangered Species Act or as species of special concern by the Alaska Department of Fish and Game. Cook Inlet includes many areas established by state or federal law to protect and preserve natural habitat and wildlife populations and to maintain public use of these resources. Many of the special areas have legislatively defined restrictions on development activities.

## C. Current and Projected Uses

The Cook Inlet area's abundant moose, black and brown bear, caribou, waterfowl, and many fish species form the resource base for subsistence, sport, commercial, personal use, and educational harvest activities, which are integral to the history and culture of the area, as well as contributing significantly to the economy. Residents and visitors use the area extensively for recreation and tourism. Other abundant natural resources support timber, agriculture, mining, and oil and gas industries.

## D. Oil and Gas in Cook Inlet

The Cook Inlet lease sale area has low to moderate petroleum potential, based on factors including geology, seismic data, exploration history of the area, and proximity to known hydrocarbon accumulations. Cook Inlet is a mature, producing petroleum basin, which has had extensive exploration and development over the past 40 years. The area continues to be of interest to the petroleum industry, with annual oil production of 6 million bbls (barrels) and annual gas production of 196 Bcf (billion cubic feet) in 2006.

Oil and gas activities proceed in phases; each subsequent phase's activities depend on the completion or initiation of the preceding phase. During the lease phase, the first step in the process of developing the state's oil and gas resources after the best interest finding process, the state conducts competitive areawide sales of oil and gas leases, offering for lease all available state acreage within the sale area. An oil and gas lease grants to the lessee the exclusive right to drill for, extract, remove, clean, process, and dispose of oil, gas, and associated substances; however, a plan of operations, subject to a myriad of regulatory authorities and permits, must be approved before any operations may be undertaken on or in the leased area. In the exploration phase, information is gathered about the area's petroleum potential by examining surface geology, researching data from existing wells, performing environmental assessments, conducting geophysical surveys, and drilling exploratory wells. During the development phase, operators evaluate the results of exploratory drilling and develop plans to bring the discovery into production. Production operations bring well fluids to the surface and prepare them for transport to the processing plant or refinery.

Over 5.9 million acres of state land have been leased in 52 state oil and gas lease sales in the Cook Inlet area since 1959, generating up to \$67.7 million in bonuses received by the state. As of December 30, 2008, over 1 million acres were under lease; 510,705 acres offshore and 675,626 acres onshore.

The location and nature of oil or gas deposits determine the type and extent of facilities necessary to develop and transport the resource. However, modern oil and gas transportation systems usually include the following major components: 1) pipelines; 2) marine terminals; and 3) tank vessels. Oil and gas produced in the lease sale area would most likely be transported by a combination of these depending on the type, size, and location of the discovery. Because the Cook Inlet Basin has produced oil and natural gas since the 1960s, it has a well-developed infrastructure for transporting petroleum, especially in upper Cook Inlet.

The risk of a spill exists any time crude oil or petroleum products are handled. Oil spills associated with the exploration, development, production, storage, and transportation of crude oil may occur from well blowouts, or pipeline or tanker accidents. Since 1999, there have been 18 crude oil spills in the Cook Inlet area of 100 gallons or more from pipelines, platforms, onshore production facilities, storage facilities, and marine tankers. Six of these were more than 500 gallons.

## **E. Governmental Powers to Regulate Oil and Gas**

All exploration lease activities are subject to numerous federal, state, and local laws and regulations with which the lessee is obligated to comply. These government agencies have a broad spectrum of authorities to regulate and condition activities related to oil and gas, and their role in the oversight and regulation of oil and gas activities differ, although some agencies may have overlapping authorities. These 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 U.S. Fish and Wildlife Service; and the National Marine Fisheries Service.

## **F. Reasonably Foreseeable Cumulative Effects of Leasing and Subsequent Activity**

Potential post-lease 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 and production activities. Some potential cumulative effects of these activities include physical disturbances that could alter the landscape, lakes, rivers, and wetlands; habitat change; behavior changes of fish, wildlife and birds; drawdowns and contamination of groundwater; and contamination of terrestrial or freshwater habitats from discharges from well drilling and production, gas blowouts, or oil spills.

Oil and gas exploration, development, and production activities may produce emissions that have the potential to affect air quality, including carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter-10 (PM<sub>10</sub>), PM<sub>2.5</sub>, volatile organic compounds (VOC), ozone, and greenhouse gases including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O).

Oil and gas related activities could result in increased access to hunting and fishing areas due to construction of new roads, but this could also increase competition between user groups for fish and wildlife resources. Interference with commercial fishing operations is a potential effect. A major oil spill could harm fisheries through direct lethal or sub-lethal effects to fish stocks, and could decrease resource availability and accessibility for users.

Although oil and gas activities subsequent to leasing could potentially affect habitats, fish and wildlife and their uses, subsistence, air quality, and commercial fishing, measures included in this best interest finding, along with regulations imposed by other state, federal, and local agencies, are expected to avoid, minimize, and mitigate those potential effects.

## **G. Fiscal Effects and Effects on Municipalities and Communities**

Alaska's economy depends heavily on revenues related to petroleum development, which totaled \$4.57 billion in fiscal year 2007. The petroleum industry is Alaska's largest industry, annually spending \$2.1 billion, including \$422 million on payroll and \$1.7 billion on goods and services. Overall, this spending generates 33,600 jobs, \$1.4 billion in payroll, and value added to the Alaska economy of \$1.8 billion for total output of \$3.1 billion. Oil and gas accounts for 12 percent of private sector jobs and 20 percent of private sector payroll. The oil and gas industry has the highest monthly wage in Alaska, averaging \$7,754, 2.8 times higher than the statewide average of \$2,798.

Demand for natural gas in the Cook Inlet area is projected to exceed supply by 2015 unless new reserves are discovered and developed, natural gas is transported to the area by a spur line from the proposed North Slope pipeline, or LNG is imported. Decreasing supplies of Cook Inlet natural gas led to the closure of the Agrium plant in 2007, resulting in the loss of 250 jobs in the Kenai

Peninsula Borough. The LNG (liquid natural gas) export license and supply contracts were extended to 2011, but continued operation of the LNG plant may be jeopardized without long-term proven supplies of natural gas. Without increased Cook Inlet natural gas supplies, prices for residential and commercial natural gas and for electricity will continue to increase. Between 2000 and 2006, the price of natural gas increased 91 percent for Anchorage households, the cost of electricity increased 28 percent, and rates for home heating are expected to rise at least another 22 percent in January 2009.

## **H. Mitigation Measures and Other Regulatory Protections**

Mitigation measures address habitat loss avoidance and protection; prohibitions and restrictions on surface entry into legislatively designated and other important habitat areas; disturbance avoidance; and free passage of fish and wildlife. Mitigation measures protect trumpeter swan nesting areas, bald eagles, and Steller's eiders. Sets of comprehensive measures protect the Kenai Lowlands caribou herd, brown bears and their habitat, and beluga whales. Measures to protect fish and wildlife uses address harvest interference avoidance, public access, and road construction. Other measures and regulations protect drinking water and clean air, and address seismic activities, design and construction of pipelines, discharges and waste from drilling and production, oil spill prevention and control, and site rehabilitation.

## **I. Director's Final Finding**

The director of the Division of Oil and Gas has made a final finding that holding annual Cook Inlet Areawide oil and gas lease sales from 2009-2018 is in the best interests of the state (Chapter 11). State law AS 38.05.035(e) and (g) requires that before an oil and gas lease sale, the director determine whether the lease sale is in the best interests of the state; state law also specifies what must be considered in making that determination. Annually, the Division of Oil and Gas (DO&G) issues a call for substantial new information that has become available since the most recent finding, and based on information received, the commissioner determines whether it is necessary to supplement the finding.

This final determination is based upon a review of all facts and issues known, or made known, to the director. The director limited the scope of the finding to the lease sale phase of oil and gas activities and the reasonably foreseeable significant effects of a lease sale (AS 38.05.035(e)(1)(A)). Conditions for phasing were met under AS 38.05.035(e)(1)(C).

In making this final finding, the director considered the petroleum potential of the lease sale area; the fish and wildlife and their habitats; current and projected uses in the area, including uses and value of fish and wildlife; the reasonably foreseeable cumulative effects of oil and gas exploration, development, production, and transportation on the lease sale area, including effects on subsistence uses, fish and wildlife habitats, populations, and their uses, and historic and cultural resources; the methods most likely to be used to transport oil or gas from the lease sale area and the advantages, disadvantages, and relative risks of each; the reasonably foreseeable fiscal effects of the lease sale and subsequent activity on the state and affected municipalities and communities; and the reasonably foreseeable effects of exploration, development, production, and transportation involving oil and gas on municipalities and communities in the lease sale area (AS 38.05.035(g)).

After weighing the facts and issues known to him 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 concludes that the potential benefits of the lease sale outweigh the possible negative effects, and that Cook Inlet Areawide oil and gas lease sales will best serve the interests of the state of Alaska.

A person affected by this decision who provided timely written comments or oral testimony may request reconsideration, in accordance with 11 AAC 02. Any reconsideration request must be received by February 9, 2009, and may be mailed or delivered to:

Thomas E. Irwin, Commissioner  
Department of Natural Resources  
550 W. 7th Avenue, Suite 1400  
Anchorage, Alaska 99501

Fax: 1-907-269-8918

Email: [dnr.appeals@alaska.gov](mailto:dnr.appeals@alaska.gov).

If reconsideration is not requested by that date or if the commissioner does not order reconsideration on his own motion, this decision goes into effect as a final order and decision on February 20, 2009. Failure of the commissioner to act on a request for reconsideration within 30 days after issuance of this decision is a denial of reconsideration and is a final administrative order and decision for purposes of an appeal to Superior Court. The decision may then be appealed to Superior Court within a further 30 days in accordance with the rules of the court, and to the extent permitted by applicable law. An eligible person must first request reconsideration of this decision in accordance with 11 AAC 02 before appealing this decision to Superior Court. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources.

