

Outer Continental Shelf Oil & Gas Leasing Program: 2007-2012

Final Environmental Impact Statement
April 2007

Volume I

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**Final Environmental Impact Statement
April 2007**

Volume I

**PROPOSED OUTER CONTINENTAL SHELF
OIL & GAS LEASING PROGRAM: 2007-2012
ENVIRONMENTAL IMPACT STATEMENT**

Draft ()

Final (X)

Type of Action:

Administrative (X)

Legislative ()

Areas of Potential Impact: Offshore marine environment and coastal counties of Alabama, Alaska, Delaware, Florida, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, Texas, and Virginia.

Responsible Agency: U.S. Department of the Interior
Minerals Management Service
381 Elden Street
Herndon, VA 20170-4817

Abstract:

This final environmental impact statement analyzes the effects of the adoption of a schedule of lease sales indicating, as precisely as possible, the size, timing, and location of leasing activities, consistent with the requirements of Section 18 of the Outer Continental Shelf (OCS) Lands Act, 43 U.S.C. §1344, for the period of mid-2007 through mid-2012. The proposed action is a plan to offer areas of the Federal OCS for lease for oil and natural gas exploration and development. This document analyzes the potential consequences of a 5-year leasing program which would schedule 20 sales in 7 of the 26 OCS planning areas. Three alternatives which would modify this schedule of sales, and one alternative which would schedule no sales, have also been analyzed.

Hypothetical scenarios were developed indicating the level of routine exploration and development activities and accidental events (such as oil spills) which might result if the plan was adopted and areas were actually leased and explored, and if economically recoverable resources were discovered and produced. The impacts to the environmental resources represent the aggregation of all the potential changes which might result from these routine activities or accidental events.

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**PROPOSED OUTER CONTINENTAL SHELF
OIL AND GAS LEASING PROGRAM: 2007–2012
FINAL ENVIRONMENTAL IMPACT STATEMENT**

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SUMMARY

The Proposal

The U.S. Department of the Interior (USDO I) proposes 20 lease sales in 7 of the Outer Continental Shelf (OCS) planning areas in the Gulf of Mexico, Alaska, and Atlantic during the period 2007-2012. Six sales would be held in the Central Gulf of Mexico Planning Area, and five annual sales in the Western Gulf of Mexico Planning Area. One sale is proposed in the Mid-Atlantic Planning Area offshore Virginia. In the Alaska Region, two sales are scheduled in the Beaufort Sea Planning Area, three sales in the Chukchi Sea Planning Area, one sale in the North Aleutian Basin Planning Area, and two sales in the Cook Inlet Planning Area. No lease sales are proposed off the U.S. west coast. The program establishes a schedule that the USDO I will use as a basis for considering where and when leasing might be appropriate over a 5-year period. A decision to adopt the program is not a decision to issue specific leases or to authorize any drilling or development.

Activities that could occur on leases issued as a result of the proposed lease sales on the proposed leasing may extend over a period of 25 to 40 years. Among the types of activities analyzed for environmental impacts are: (1) drilling oil and natural gas exploration and production wells; (2) installing and operating offshore platforms and pipelines, and onshore support facilities; and (3) transporting oil using ships or pipelines. The specific amounts and locations of activity that might occur as a result of adopting the proposal or an alternative are unknown. The environmental analysis is based on reasoned assumptions about future activities. The assumptions constitute a scenario of activities developed for the proposal and each alternative. Estimates of oil and gas resources that might be found in and produced from the areas being considered for leasing provide the basis for making the assumptions. Each scenario contains the major elements of activity needed to support exploration, production, and transportation of oil and gas that may be discovered and found to be economically producible.

Alternatives

Nine alternatives to the proposed action (alternative 1) are evaluated in this environmental impact statement (EIS). Each alternative represents a variation of the proposal with respect to location of possible future lease offerings.

- Exclude North Aleutian Basin (alternative 2). This alternative would exclude the two proposed sales in the North Aleutian Basin Planning Area. Leasing in other planning areas would be the same as alternative 1.
- Exclude Cook Inlet (alternative 3). This alternative would exclude the two proposed sales in the Cook Inlet Planning Area. Leasing in other planning areas would be the same as alternative 1.
- Exclude Mid-Atlantic (alternative 4). This alternative would exclude the proposed sale in the Mid-Atlantic Planning Area. Leasing in other planning areas would be the same as alternative 1.
- Defer Blocks Within 25 Miles of Virginia and Chukchi Sea Coasts (alternative 5). This alternative would exclude those portions of the mid-Atlantic and Chukchi Sea areas within 25 miles from the coast. Leasing in other planning areas would be the same as alternative 1.

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- Defer Blocks at the Mouth of the Chesapeake Bay (alternative 6). This alternative would exclude portions of the Mid-Atlantic Planning Area near the mouth of the Chesapeake Bay. Leasing in other planning areas would be the same as alternative 1.
 - Limit Leasing in North Aleutian Basin Planning Area to Blocks Offered in OCS Lease Sale 92 (alternative 7). This alternative would exclude portions of the North Aleutian Basin Planning Area that were not included in Lease Sale 92. Leasing in other planning areas would be the same as alternative 1.
 - Defer Blocks in the Beaufort Sea Planning Area to Avoid Conflicts with Whaling (alternative 8). This alternative would defer two areas in the Beaufort Sea Planning Area known to be important for subsistence whaling. Leasing in other planning areas would be the same as alternative 1.
 - Defer Blocks Within 50 Miles of Virginia with Other Possible Restrictions (alternative 9). This alternative also includes possible restrictions for gas-only and exploration-only leasing, assuming the OCS Lands Act is modified to allow for these options. Leasing in other planning areas would be the same as alternative 1.
 - No Action (alternative 10). No lease sales would be conducted in any OCS planning areas during the period 2007-2012. Exploration, development, and production activities would continue on blocks leased previously.

Principal Issues and Concerns

Risks of Oil Spills

Major advancements in drilling and production technology have been made in recent years, reducing the risk of oil spills from OCS operations. Nevertheless, concerns remain that OCS oil spills will occur and result in unacceptable impacts on the environment. We cannot predict with certainty whether oil spills will occur, where they may occur, or how severe they may be. For purposes of analysis, we calculated the risk of oil-spill occurrence for the proposal using historical oil-spill data and estimates of the oil resources that might be produced from each planning area under the proposal. That risk varies from region to region and is proportional to the amount of oil that could be produced and transported.

Although the likelihood of oil-spill occurrence can be estimated using oil production estimates and observed spill rates, predicting the degree to which a particular environmental resource would be affected by spilled oil requires a knowledge of where, when, and under what environmental conditions spills might occur. The potential consequences of an oil spill depend on many variable circumstances that are unpredictable. However, if a large oil spill were to occur and contact sensitive resources, significant impacts could result. An understanding of these potential impacts is an important consideration when decisions are made about OCS oil activities. Therefore, we have analyzed in the EIS the effects of oil spills assuming some spills will occur and contact sensitive resources. While this analysis provides the Secretary of the USDOJ with information about the potential impacts if spills were to occur and contact environmental resources, we are not predicting whether, when, or where specific oil spills will occur or whether they will contact environmental resources. As noted above, the EIS does provide information on the likelihood of spill occurrence based on historical oil-spill data, which is independent from the severity of oil-spill impacts.

In all program areas, we assume the occurrence of at least one large oil spill (> 1,000 barrels) for analytic purposes, even if the amount of oil that is estimated to be developed makes the occurrence of

such a spill unlikely. The analyses of these spills does not mean the USDOJ expects such a spill to occur; rather the analyses identify potential impacts to resources should a spill occur, even if it is unlikely that the spill would occur.

Effects of Noise

There continues to be concern within the scientific community about the potential adverse effects of noise on marine resources, in particular, marine mammals and sea turtles. Seismic surveys, drilling and production activities at offshore facilities, and support vessel traffic generate noise that could affect these marine resources. Therefore, we included in the EIS analyses of potential physical and behavioral effects of noise on marine mammals and sea turtles.

Subsistence Activities and Resources in Alaska

Subsistence activities are extremely important in all parts of rural Alaska and, combined with kinship, comprise the fundamental characteristic for describing Native (and some non-Native) social organization and culture. Diverse subsistence activities take place in all Alaska coastal regions potentially affected by the proposed action. Fish and marine mammals are the resources of most concern, as they constitute a large part of the harvest and typically are the resources most likely to be directly affected by OCS activities. Waterfowl and land mammals are also important subsistence resources, although the latter are potentially affected primarily by transportation pipelines and other support infrastructure and services. For most Alaska Natives, if not all, subsistence (and the relationship between people, on the one hand, and the land and water and its resources, on the other) is the characteristic of cultural identity. Therefore, an analysis of subsistence, the most dominant nonmonetary economic activity in rural Alaska, is included in the EIS.

Sensitive Biological Resources and Critical Habitats

The proposed program encompasses large areas in the Gulf of Mexico, a part of the mid-Atlantic, and portions of offshore Alaska. These areas constitute diverse marine and coastal environments. At this programmatic stage, it is not possible, or appropriate, to conduct site-specific analyses of all the potentially affected resources. Therefore, in keeping with the National Environmental Policy Act regulations, the EIS focuses on issues of most concern and those aspects of marine resources that are unique or most susceptible to impacts from offshore oil and gas activities. Threatened and endangered species, for example, are given special attention. The EIS also concentrates on those life stages and habitats that are most sensitive to the impact-causing factors of the proposed program, such as oil spills and the emplacement of structures on the seafloor.

Principal Conclusions

The analyses in this EIS describe in detail the nature and extent of potential impacts of the proposal and alternatives. One objective of the EIS is to convey to decisionmakers and the public the relative extent of potential impacts. For that reason, we present conclusions for most analyses that generally indicate the ability of an affected resource to recover from impacts that could result from the proposed action. This summary discusses issues of primary concern and the most extensive potential impacts.

The Gulf of Mexico Region

In the Gulf of Mexico Region, there is concern regarding impacts of routine activities on protected species. Two marine mammal species of particular concern in the Gulf are the endangered sperm whale and the West Indian manatee. The sperm whale is the only common endangered whale in the Gulf. The West Indian manatee is a coastal species that is usually found in the coastal and inshore waters of peninsular Florida, well away from most offshore OCS activities. Effects to these species would be the same as those that could be incurred by any of the marine mammals that are present on the Gulf of Mexico OCS. Noise generated during exploration and production activities, platform removal, and OCS-related vessels and helicopters may temporarily disturb some individuals. Collisions with OCS-related vessels may injure or kill some individuals. Many of the effects associated with noise and the presence of OCS-related vessels or structures would likely be short-term and not result in population-level effects. Existing permit requirements, regulatory stipulations, and USDOJ guidelines targeting many of the routine operations would greatly limit the impact of any potential effects on marine mammals. The magnitude of effects from accidental spills would depend on the location, timing, and volume of the spills; the environmental settings of the spills (e.g., restricted coastal waterway, deepwater pelagic location); and the species (and its ecology) exposed to the spills. Spill cleanup operations could result in short-term disturbance of marine mammals in the vicinity of the cleanup activity, while a collision with a cleanup vessel could injure or kill the affected individual.

Most sea turtles in the Gulf of Mexico are distributed within waters of the continental shelf. If a large spill were to occur nearshore during the spring and summer nesting season, it is probable that some individuals or sea turtle nesting beaches would be contacted by oil. Leatherbacks and some loggerheads are also regularly sighted within deepwater areas over the continental slope. In addition, juvenile turtles are regularly found within convergence zones in deepwater areas. Although the relative numbers of turtles within the deepwater Gulf of Mexico are relatively small when compared to the continental shelf, it is possible that individuals may be affected if a large spill were to occur in deep water. It is possible that some individuals may not recover from such exposure. However, the viability of sea turtle populations, as a whole, is not likely to be threatened.

Certain species of marine and coastal birds may be more susceptible to contact with spilled oil than others, based upon their life histories. For example, diving birds and underwater swimmers such as loons, cormorants, and diving ducks may be particularly susceptible to spilled oil because of their relative exposure time within the water and at the sea surface. At the same time, if a large pipeline spill were to occur nearshore, relatively large numbers of marine and coastal birds could be contacted by spilled oil if it reached coastal habitats with high bird abundance before being contained or cleaned up.

Routine operations could have direct impacts on wetlands as a result of construction activities and indirect impacts as a result of poorer water and air quality and altered hydrology. The magnitude of these impacts would depend upon the location and extent of new construction, construction practices, and existing environmental conditions, and would have to be determined during site-specific analyses conducted for particular lease sales. Oil spills could have direct impacts on wetlands. The magnitude of these impacts would depend on a variety of factors, including the location and size of the spill, weather conditions, remediation efforts, and existing environmental conditions (such as plant species or substrate type). Cleanup operations themselves could also impact wetlands.

The proposed program is predicted to have minimal effects on the Flower Garden Banks National Marine Sanctuary and should not affect the Florida Keys National Marine Sanctuary because no proposed leasing is remotely near the Florida Keys. A stipulation that prohibits exploration or

development activities in the immediate vicinity of the banks, the subsea location of the features, and ocean currents that circulate around the banks rather than across them, would minimize the possibility of impacts.

Routine operations would have limited effects on recreation and tourism, with potential adverse aesthetic impacts to beach recreation and sightseeing and potential positive impacts to diving and recreational fishing. Temporary impacts would occur if a spill reached a beach or other recreational-use area. The magnitude of these impacts would depend on factors such as the size and location of the spill, and it would likely be greatest if the spill occurred during the peak recreational season.

Alternatives 2 through 7 do not alter the proposed lease activities in the Gulf of Mexico, and therefore the impacts would be the same as alternative 1.

The Alaska Region

In the Beaufort, the primary factor that could impact cetaceans from routine operations is noise associated with prelease and postlease surveys, drilling and production, and decommissioning and abandonment activities. Noise from OCS operations could alter the migratory pathways of bowhead whale populations. In Cook Inlet, noise from routine operations would affect relatively few individuals. Spills occurring in marine waters of the Cook Inlet Planning Area are not expected to affect the listed blue, sei, sperm, or northern right whales. These species occur only infrequently, if at all, within the marine waters of the planning area, and because of the limited nature of potential spills that could occur under the proposed action, it is unlikely that these species would encounter an accidental spill. Spills occurring in or reaching coastal areas, and especially sheltered coastal habitats such as bays and estuaries, pose the greatest risk to marine mammals. These spills would be more likely to affect species such as the sea otter and the Steller sea lion that use coastal habitats for pupping, foraging, and resting.

Accidental oil spills pose the greatest threat to marine and coastal birds, affecting both birds and their habitats. Exposed birds may experience a variety of lethal or sublethal effects, and the magnitude and ecological importance of any effects would depend upon the size and location of the spill, the species and life stage of the exposed birds, and the size of the local bird population.

Although there could be some localized, temporary effects on fishery resources, overall populations of biological resources that serve as the basis for commercial, subsistence and recreational fisheries in Bristol Bay are not expected to be affected by activities associated with routine operations. The magnitude of effects on fish populations and their habitats from accidental spills would depend on the location, timing, and volume of spills, in addition to other environmental factors. However, spills could have localized effects on fishing as a consequence of contamination of fish tissues, damage to fishing gear, degradation of aesthetic values that attract anglers, or temporary closure of fishing areas.

The proposed action would expand existing land-use infrastructure and transportation systems. While the Prudhoe Bay complex can provide logistical support for Beaufort Sea OCS exploration and development, no such facilities currently exist for the Chukchi Sea Planning Area. Such support infrastructure could permanently alter the area's land-use patterns. The community of Kotzebue, the uninhabited areas potentially around the Chukchi Sea landfalls, and the pipeline route from the Chukchi Sea landfalls to Trans-Alaska Pipeline System would likely experience the greatest changes in land use.

Alaska Native populations are present in many coastal areas of Alaska. Diverse subsistence activities take place in all Alaska coastal regions potentially affected by the proposed action. It is possible that new onshore infrastructure could be located near these populations and produce adverse health or environmental impacts if there were effects on subsistence foods and/or harvest patterns. Potential impacts on sociocultural systems from accidents under the proposed action could be significant, depending on the size, location, and timing of oil spills. If a large oil spill were to occur, it is possible that the potential environmental and health impacts on Alaska Native populations could be disproportionately high and adverse depending on the geographic location of the spill and the effects this spill may have on subsistence resources. Mitigation efforts could reduce any disproportionate high and adverse impacts.

The Arctic National Wildlife Refuge is susceptible to oil spilled from subsea pipelines or drilling platforms in the Beaufort Sea. If a large spill were to occur, oil contamination of this shoreline would affect coastal fauna and subsistence use.

If there were no sales in the North Aleutian Basin Planning Area (alternative 2), none of the impacts expected for alternative 1 as a result of sales conducted in that area would occur. Leasing would still be conducted in the Beaufort Sea, Chukchi Sea, and Cook Inlet, and the anticipated oil and gas activity in those three planning areas would be the same as for the proposal.

If there were no sales in the Cook Inlet Planning Area (alternative 3), none of the impacts expected for alternative 1 as a result of sales conducted in that area would occur. Leasing would still be conducted in the Beaufort Sea, Chukchi Sea, and North Aleutian Basin, and the anticipated oil and gas activity in those three planning areas would be the same as for the proposal.

Under alternative 5, the area leased would be limited by deferring blocks within 25 miles of the Virginia and Chukchi Sea coasts, thus reducing potential impacts on water quality, air quality, marine mammals, marine and coastal birds, fish resources, seafloor habitats, and archaeological resources. Potential impacts on polar bears in the Chukchi Sea would be reduced, and impacts on Native subsistence and hunting patterns would be substantially reduced.

Alternative 7 would limit the area offered for leasing in the North Aleutian Basin to the 990 blocks that were offered for lease in OCS Lease Sale 92. Industry interest and estimated hydrocarbon potential fall largely in this area; therefore, the impacts for this alternative would not be different from alternative 1.

The Mid-Atlantic Planning Area

Only one lease sale is proposed for the Mid-Atlantic Planning Area. Activities resulting from this lease sale would be limited, and therefore many of the impacts would be relatively small. Although a spill is assumed for analytic purposes, a large spill occurrence is unlikely because of the small amount of oil assumed to be developed.

Under the proposed action, some lease activities could affect marine mammals in the Mid-Atlantic Planning Area. Underwater noise is expected to be the most prevalent potential impact associated with exploration, development, and production. However, all acoustic impacts are expected to be sublethal and nondebilitating. Vessel and aircraft traffic are expected to result in occasional startle reactions and avoidance responses. While no collisions would be anticipated between vessels and the smaller cetaceans occurring on the Atlantic OCS, a limited number of collisions between vessels and endangered whales could occur, some of which could be fatal. Marine mammal impacts related to

potential oil spills could lead to skin, respiratory, and digestive problems but are expected to be sublethal and nondebilitating. Other than measurable impacts to the endangered right whale population if any individual is killed, such as in the event of a lethal vessel collision, no changes in population size, distribution, or behavior are expected for the proposed action.

The necessary expertise in development and production of oil and gas does not exist in Hampton Roads, and workers with these skills will have to be imported from other areas where offshore drilling is already being done. However, there is a large labor pool in the Hampton Roads area, including workers skilled in construction and maritime trades. These workers could provide support services in the drilling and pipelaying phases, as well as in the construction of needed onshore facilities such as the service base, gas processing facilities, and pipe coating yards.

Routine activities associated with oil and gas exploration, development, and production may result in visual, natural, and branding impacts on tourism and recreation. Except in extreme circumstances, impacts are expected to be minor or temporary. Though unlikely in the Mid-Atlantic Planning Area, a large oil spill could result in temporary beach closures.

Alternative 4 does not include the Mid-Atlantic Planning Area, and impacts resulting from the proposed sale would not occur. Alternative 5 would limit the area leased by deferring blocks within 25 miles of the coast, thus reducing potential impacts on water quality, air quality, marine mammals, marine and coastal birds, fish resources, seafloor habitats, and archaeological resources. Alternative 6 would defer lease blocks at the mouth of the Chesapeake Bay, providing additional protection to the sensitive resources in the area. Alternative 9 would limit the area leased by deferring blocks out to 50 miles from the Virginia coast. This is anticipated to further reduce the potential for coastal impacts from OCS activities.

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A. Introduction

The purpose of this proposed action is to comply with the Outer Continental Shelf Lands Act (OCSLA) by establishing an oil and gas leasing program on the Outer Continental Shelf (OCS) for the years 2007-2012. Leasing would convey rights for exploration, development, and production of oil and gas resources on the OCS areas under Federal jurisdiction. This will help fulfill a need to increase the development of domestic sources of energy. The proposed action in this environmental impact statement (EIS) is the 2007-2012 Proposed Oil and Gas Leasing Program for the Outer Continental Shelf as described in the Draft Proposed Program published in the *Federal Register* (FR) on February 10, 2006 (71 FR 7064). The 2007-2012 program is a national schedule of OCS lease sales that will extend over a 5-year period from 2007-2012. Section 18 of the OCSLA (43 U.S.C. 1344) requires the U.S. Department of the Interior (USDOI) to prepare a 5-year schedule that specifies, as precisely as possible, the size, timing, and location of areas to be assessed for Federal offshore oil and gas leasing. The OCSLA also requires the 5-year leasing schedule to be developed and maintained in a manner that is consistent with several management principles. Specifically, the USDOI must manage the OCS program to ensure a proper balance among oil and gas production, environmental protection, and impacts on the coastal zone. In developing the 5-year leasing schedule, the USDOI considers regional and national energy needs; leasing interests as expressed by possible oil and gas producers; applicable laws, goals, and policies of affected States; competing uses of the OCS; relative environmental sensitivity among OCS Regions; and the fair market value of the hydrocarbons that are produced. The 2007-2012 program establishes a framework for managing the OCS oil and gas leasing program in a manner that accounts for all these factors. It also provides the public with a clear statement of the USDOI's OCS leasing intentions during the period from 2007-2012.

The benefits of producing oil and natural gas from the OCS include helping to meet national energy needs and generating money for public use. Currently, the OCS is producing more than 4 trillion cubic feet (Tcf) of natural gas and more than 600 million barrels (MMbbl) of oil and condensate annually. These numbers represent 21 and 29 percent respectively of the total US domestic production of oil/condensate and natural gas. The OCS is estimated to contain more than 50 percent of the Nation's remaining undiscovered oil and natural gas resources. On average, the Federal Government receives almost \$8 billion per year from OCS bonuses, rental payments, and royalties from offshore oil and gas leases.

According to the National Energy Policy Development (NEPD) Group (National Energy Policy Development Group, 2001):

“U.S. energy demand is projected to rise to 127 quadrillion Btu by 2020, even with significantly improved energy efficiency. However, domestic production is expected to rise to only 86 quadrillion Btu by 2020. The shortfall between projected energy supply and demand in 2020 is nearly 50 percent. That shortfall can be made up in only three ways: import more energy; improve energy efficiency even more than expected; and increase domestic energy supply.”

Production of OCS oil and gas resources is one of the prime methods for increasing domestic energy supply. Indeed, the National Energy Policy makes the following recommendation:

“The NEPD Group recommends that the President direct the Secretary of the Interior [to] continue OCS oil and gas leasing and approve of exploration and development on predictable schedules.”

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In addition, the NEPD Group recommends the consideration of “economic incentives for environmentally sound offshore development where warranted by special circumstances . . .”

Congress in its yearly appropriations to the USDOJ maintains annual moratoria on OCS oil and gas leasing in the following planning areas:

- Washington-Oregon
- Northern California
- Central California
- Southern California
- Eastern Gulf of Mexico (except for the portion located more than 15 miles off Alabama and more than 100 miles off Florida that was originally proposed for OCS Lease Sale 181)
- South Atlantic
- Mid-Atlantic
- North Atlantic

Additionally, Presidential moratoria have withdrawn the above planning areas and all national marine sanctuaries from leasing until after June 30, 2012. The Congressional and Presidential moratoria prohibit future oil and gas leasing but do not apply to existing leases. Existing leases in areas subject to the moratoria and withdrawal are located off California and north Florida. The North Aleutian Basin Planning Area was also under a Presidential moratorium until January 9, 2007, when President Bush lifted the moratorium on oil and gas leasing there. <http://www.petroleumnews.com/pntruncate/104244469.shtml>.

Seven of the 26 OCS planning areas have been identified for leasing consideration as part of the proposed 2007-2012 program. Sixteen planning areas located off the east, west, and Alaskan coasts, and the Eastern Gulf of Mexico Planning Area located off Florida are neither part of the proposed action nor analyzed in any alternative. Sale 224 in the Eastern Gulf of Mexico was mandated by the Gulf of Mexico Energy Security Act of 2006 (P.L. 109-432, December 20, 2006). Because this sale will occur as a result of a Congressional mandate, and not through the USDOJ 5-year plan development process, the action was not included in the 5-year EIS or program. The sale (224) will include 134 lease blocks located more than 125 miles from the Florida coast. The MMS Gulf of Mexico region will prepare a supplement to the EIS completed in 2001 for the “Sale 181 Area” to support this action.

Other planning areas on the Alaska OCS were also excluded from the program primarily because they have low oil and gas resource value and are of little or no interest to the oil and gas industry at this time. No new OCS leasing will take place in the Pacific Region under the proposed 2007-2012 Leasing Program nor is any leasing assumed in future 5-year programs that occur during the 40-year life of the 2007-2012 program. The only potential impacts in the Pacific OCS Region associated with the proposed 5-year program would be from an accidental oil spill from a tanker transporting Alaskan OCS crude oil to U.S. west coast ports. The probability and magnitude of possible impacts would be essentially the same as those described in the final environmental impact statement (FEIS) for the 2002-2007 OCS Oil and Gas Leasing Program (MMS, 2002c). The impacts discussions in that document are herein incorporated by reference.

The proposed action (alternative 1) in the FEIS includes 20 sales among the 7 OCS planning areas being considered for leasing. The sales include 11 sales in the Gulf of Mexico, 1 sale offshore Virginia in the Atlantic (if legislation is enacted lifting the present moratorium), and 8 sales offshore

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Alaska. The development of the 5-year OCS oil and gas program goes through several stages including the Draft Proposed Program, the Proposed Program, the Proposed Final Program, and the Final Program. The decision of the Secretary as reflected in the Proposed Final Program is addressed through the analyses of the various alternatives in this FEIS.

This EIS offers a program-level national assessment of the potential environmental effects of holding those 0o sales. The EIS also evaluates the possible impacts of nine alternatives to the proposed action. This EIS is the first of many National Environmental Policy Act (NEPA) analyses that will be done in association with the 2007-2012 OCS Oil and Gas Program. As the program progresses, EIS's or environmental assessments (EA's) will be done for lease sales in specific planning areas. Should leasing lead to exploration and development, MMS will prepare additional site-specific NEPA analyses for offshore activities including exploration, development, pipeline installation, and platform decommissioning. As the program moves through its initial planning phase into leasing and then exploration and production, the geographic scope of the NEPA analyses will become more focused and detailed.

B. The Scope of the EIS

The content of an EIS is based on a process called "scoping." The regulations implementing the NEPA require that scoping be included in the environmental analysis process. Scoping for this EIS included several key elements: (1) gathering information and ideas from the public and elsewhere about the analytical issues related to the oil and gas leasing program; (2) making determinations about which issues should be analyzed; and (3) identifying alternatives to the proposal that warrant analysis. The scoping process is dynamic in that it begins before the draft EIS analyses are initiated and continues throughout the period of document preparation.

The MMS used several approaches to gather information from the public on the scope of this EIS. First, MMS published a Notice in the *Federal Register* (70 FR 9669) dated August 24, 2005, requesting comments from the public, States, local and tribal governments, American Indian and Native Alaskan organizations, Federal Agencies, environmental and wildlife organizations, the oil and gas industry, and other interested organizations to assist in the preparation of the 2007-2012 program and an applicable EIS. Based on the comments and information received, a draft proposed program was prepared and distributed for review. Additional comments related to the scope of this EIS were received as part of the public response to the request published in the FR asking for comments on the draft proposed program (71 FR 7064; February 10, 2006). Sources of the responses included Federal, State and local government agencies; businesses (e.g., petroleum, tourism, fishing) and public interest groups (e.g., environmental); and private citizens. The MMS also received input on the scope of this EIS during public meetings that were held with potentially affected parties in March and April 2006. The MMS held meetings in Alaska (Barrow, Kaktovik, Nuiqsut, Wainwright, Dillingham, King Salmon, Cold Bay, Unalaska, and Anchorage), the Gulf of Mexico (New Orleans, LA; Houston, TX; Mobile, AL; and Tallahassee, FL), and Norfolk, VA. Refer to Chapter V (Consultation and Coordination) for more information about the public input.

Recent EIS's for Gulf of Mexico and offshore Alaska oil and gas lease sales provided additional scoping information. Many of the analytical issues raised during the lease sale review process are applicable to this EIS for the proposed 2007-2012 Leasing program. Environmental resource specialists at MMS also identified analytical issues relevant to this analysis.

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Alternatives were suggested by the public in response to the requests for EIS input published by MMS. In addition, alternatives developed for past leasing program proposals were reviewed to determine whether it would be appropriate to analyze any of them in detail in this EIS.

The information gathered from scoping generally fits into one of four categories:

- Oil and gas activities that could cause impacts (termed "impact producing factors");
- Ecological, social, and economic resources that could be affected by oil and gas activities;
- Alternatives to the proposed action; and
- Measures to mitigate the potential impacts of the proposed action.

A summary of the analytical issues, alternatives, and mitigating measures that were identified during scoping is presented below. Mitigation measures identified during scoping are not analyzed in this EIS because these will be more appropriately determined at the lease-sale stage rather than at the programmatic level. Additional mitigations will be considered at the lease-sale stage when more detailed and geographically focused analyses will be done to consider restrictions on leasing and development activities. The EIS impact analyses, however, do assume implementation of mitigation measures required by statute or regulation as well as sale-specific mitigation (stipulations) commonly adopted in past sales (Appendix C. Assumed Mitigation Measures). The EIS also assumes that appropriate existing mitigations in areas with active leasing programs, such as the Gulf of Mexico, will be applied to areas included in the 2007-2012 proposed final program that do not have a history of OCS activity. For example, the analyses of archaeological and benthic habitat resources offshore Virginia assume that existing MMS archaeological and biological survey requirements, regulations and lease stipulations will be applied in the Mid-Atlantic.

Finally, the proposed action and alternatives presented here constitute a complete analysis of all decision options under consideration by the Secretary of the Interior.

1. Analytic Issues

a. Analytic Approach

The geographic scope of this EIS encompasses a large area that includes offshore Alaska, offshore Virginia and about two-thirds of the U.S. Gulf of Mexico. The EIS takes a broad programmatic approach toward the analysis of potential environmental impacts associated with the Draft Proposed Program. As lease sales and exploration and development activities occur during the 2007-2012 program, the MMS will conduct more geographically focused and detailed NEPA analyses specific to a planning area or one or more lease blocks (a typical lease block is approximately 3 miles square). The geographic unit of analysis in this EIS is larger, generally incorporating more than one planning area. This approach is consistent with ecosystem-based environmental analyses recommended by the U.S. Commission on Ocean Policy (2004). Ecosystems are more meaningful units for impact assessment than are areas defined by nonscientific boundaries, such as OCS planning areas. For analysis purposes, the EIS divides the Alaska OCS into three ecosystem based subregions: Arctic, Bering Sea, and South Alaska. The proposed program includes the Beaufort Sea and Chukchi Sea Planning Areas in the Arctic Subregion. Information about levels of OCS activities anticipated during the life of the proposed program and analytic conclusions are presented for the entire subregion, and not for individual planning areas. Because the Bering Sea and South Alaska Subregions include only one planning area each, the geographic scope of the analyses there is focused on these planning areas. In the Gulf of Mexico, the analysis area is the entire 2007-2012 Gulf program area because of the wide

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unbroken extent that spans a subtropical to tropical ecosystem there. Only a small area offshore Virginia is part of the 2007-2012 program in the Atlantic, so the analysis is focused on the area that could be affected from the resulting leasing and development.

b. Impact-Producing Factors

Several types of impact-producing factors were identified that warrant consideration. All of the following impact-producing factors are included in the scenarios for the proposed action (Section IV.B) and the alternatives (Sections IV.C, IV.D, IV.E, IV.F, IV.G, IV.H, IV.I, IV.J, and IV.K). In addition, the cumulative impact analysis includes activities unrelated to OCS development but relevant to assessing cumulative impacts (Section IV.L).

- Accidental oil spills including those from well "blowouts," production accidents, transportation (e.g., tankers vessels, seafloor and onshore pipelines, and storage facilities) failures, and low-level spillage from platforms, oil trajectories from adjacent States.
- The offshore and onshore disposal of liquid waste disposal including well drilling fluids (i.e., drill muds), produced water, ballast water, and sanitary and domestic wastewater generated by OCS-related activities.
- Solid waste disposal including material removed from the well borehole (i.e., drill cuttings), solids produced with the oil and gas (e.g., sands), cement residue, bentonite, and trash and debris (e.g., equipment or tools) accidentally lost, including those that contain materials such as mercury that may bioaccumulate.
- Gaseous emissions from offshore and onshore facilities and transportation vessels and aircraft.
- Noise from seismic surveys, aircraft, drilling and production operations and explosive platform removals.
- Invasive species that may be associated with offshore facilities and transportation systems.
- Traffic and physical impacts and use conflicts including oil tankers and barges, and crew, supply, and seismic survey vessels and aircraft.
- Physical emplacement, presence, and removal of facilities including offshore platforms; seafloor pipelines; floating production, storage, and offloading systems; and onshore infrastructure such as pipelines, storage, processing, and repair facilities; ports; pipe coating yards; refineries; and petrochemical plants.
- Other activities or accidental events including oil-spill responses (cleanup). One frequently noted issue is oil-spill recovery under extreme sea and ice conditions.

In addition to the activities that may result from the proposed action, the EIS considers natural processes and phenomena that could cause indirect impacts by affecting the safe conduct of OCS oil and gas exploration, production, and transportation activities, or the environmental conditions under which these activities occur. These include geologic hazards such as earthquakes and continental slumping; gas hydrates; physical oceanographic processes such as water currents, sea ice and waves; subsea permafrost; and meteorological and climatic events and processes such as hurricanes and global warming. The EIS also considers potential hazards from unexploded military ordnance and space-use conflicts with military operations in designated offshore military areas, and potential future alternative uses of the OCS, including the new Alternative Energy/Alternate Use Program in development by MMS. It also considers the effects of the OCS Program on the introduction of invasive species into U.S. waters.

This EIS gives attention to the issue of climate change, based on the observed changes that have been occurring during the past decades, particularly in the high latitude environments in Alaska. Chapter III (Affected Environment) includes discussions of the effects of ongoing, observable climate

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changes for the affected resources. Section IV.A (Assessment of Programmatic Concerns) discusses the impacts of the program on climate change. Additional analyses are included in the cumulative effects analysis (Section IV.L) in which the impacts of the continuing trend in climate change during the life of the program are evaluated along with all other factors affecting the resource.

c. Potentially Affected Resources

For each resource or resource group covered in this EIS, 10 specific analyses are presented: 1 for the proposed action (Section IV.B), 1 for each of the 9 alternatives (Sections IV.C through IV.K), and 1 for the cumulative scenario (Section IV.L). The resources and topics analyzed cover the physical, the biological, and the socioeconomic environments. The specific topics in the physical environment include:

- Water quality (including marine and estuarine areas). The water quality issues raised are related primarily to marine water quality and were generally raised in the context of how changes in water quality caused by OCS activities could affect biological resources; for example, by contributing to the Gulf of Mexico hypoxia zone.
- Air quality. The principal concern identified with respect to air quality is the possible effects of offshore emissions on onshore air quality and the potential for offshore emissions to contribute to violations of onshore air quality standards.

The issues that were raised regarding possible impacts on biology and ecology fall into three main categories: animals, plants, and habitats or ecological systems. Among the animal groups identified as needing analysis for potential program impacts were marine mammals, birds, fish, and sea turtles. Special attention was drawn to migratory species, species taken commercially and for Alaska Native subsistence (including whales, fish, birds), and the threatened and endangered species. With respect to habitats or systems, both marine (i.e., sanctuaries, marine parks/preserves, seagrasses, mangroves, and "hard-bottom" areas) and coastal (i.e., estuaries, wetlands/marsh, intertidal zone, seashore parks) areas were identified as subject to possible adverse impacts. The issue of bioaccumulation was raised.

The specific biological and ecological resources analyzed in detail are listed below.

- Marine mammals including a variety of endangered and nonendangered cetaceans (whales), pinnipeds (seals, sea lions, walruses), sea otters, and polar bears.
- Terrestrial mammals including caribou and brown bear in the arctic and three species of mice that inhabit certain coastal areas of the Gulf of Mexico.
- Birds including a variety of endangered and nonendangered seabird, shorebird, waterfowl, and raptor species. Particular concern was identified for migratory species, including those taken for Alaska Native subsistence.
- Fish resources, including a variety of finfish and shellfish species used for commercial or recreational purposes, and Essential Fish Habitat as designated by the U.S. Department of Commerce (USDOC), National Marine Fisheries Service (NMFS).
- Reptiles limited to sea turtles.
- Coastal habitats including wetlands, estuaries, seagrass and kelp beds, mangroves, dunes, beaches, and barrier islands.
- Seafloor habitats including submarine canyons, topographic features, corals, live bottom areas (benthic environments), and seeps (e.g., brine and oil seeps).
- Areas of special concern including national coastal and marine sanctuaries, parks, refuges, reserves, sanctuaries, and forests.

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Specific concerns on socioeconomic and sociocultural resources included potential impacts on tourism, recreation, commercial fishing, subsistence harvests, aesthetics, local economy (especially the "boom/bust" phenomenon), land- and water-use conflicts, equitable sharing of program benefits and burdens, disproportionate impacts on Louisiana, and disproportionate impacts on Alaska Natives. The socioeconomic topics analyzed in this EIS are:

- Population, employment, income, and public service issues from the effects of the program including issues of "boom-bust" growth.
- Land use and infrastructure, including construction of new onshore facilities and land use and transportation conflicts between the oil and gas development and other uses.
- Sociocultural systems effects. These concerns focused on effects on subsistence in Alaska (e.g., bowhead whale hunting), losses of cultural identity, psychological and other effects on human health, and the social costs of oil spills.
- Environmental justice (e.g., the disproportionate and high adverse impacts on minority and/or low-income populations (Executive Order 12898)).
- Fisheries, both commercial and recreational.
- Tourism and recreation, including the use of coastal areas for sightseeing, wildlife observations, swimming, diving, surfing, sunbathing, hunting, fishing, boating, and visual impacts of offshore OCS structures.
- Archaeological resources, including historic shipwrecks and sites inhabited by humans during prehistoric times.

A number of suggestions were made regarding the methods that should be used to analyze the potential impacts of the proposed action. The following suggestions regarding analytical methods are incorporated in this EIS.

- Traditional knowledge: Include the Native or traditional knowledge in the EIS assessment in addition to the western science information. Such knowledge is incorporated in the EIS primarily in regard to Alaska Natives and in reference to sociocultural and marine mammal resources.
- Energy needs and alternative energy: Present information in the EIS on the nation's energy needs and alternatives, including those other than offshore oil and gas that may supply that need (e.g., wind, geothermal, hydro, solar, wave, and tidal energy, and ethanol). This information is presented in this EIS in Chapter I (Purpose and Need for the Proposed Action) and Section IV.K (No Action Alternative). A related suggestion, that there be a demonstration of how oil and gas development is balanced with other uses of the OCS and the preservation and protection of renewable resources, is presented separately in the program decision document.
- Environmental risk and impact: The assessment of the risk of a large oil spill should be presented separate from the potential impacts should such a spill occur. The EIS analysis of the proposed action (Section IV.B) presents the consequences of large spills for all resources independent of risk.

2. Issues Not Analyzed in This EIS

The following discussions address issues mentioned during scoping that were not analyzed in this EIS. These issues included concerns about affected resources or use of analytical techniques in the EIS.

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a. Human Safety

Generally, concerns mentioned regarding human safety risks from OCS oil and gas development were broad and not defined during scoping. The issue of worker safety is more appropriately considered during the review of individual lease exploration and development proposals. The OCS Lands Act and the implementing regulations require that all drilling and production operations use the best available and safest technologies. A principal reason for this requirement is to minimize the adverse effect of OCS operations on human safety. It is during the review of proposals to conduct lease operations that MMS considers whether they would be conducted in a manner that conforms to the many specific requirements developed to protect human safety. The MMS can best determine whether additional measures are needed to reduce the potential for accidents that affect safety at that time.

b. Proposed Seismic Inventory

We received many comments on the issue of conducting seismic surveys to identify the Nation's potential OCS oil and gas resources, as described in the 2005 Energy Act. Generally, industries, States, and individuals supportive of OCS petroleum development favored this idea, and those against OCS development opposed it. Those in favor argued that it was prescribed in duly enacted law, it would support national energy planning, and it would provide information relevant to the equitable sharing of the benefits and burdens of the OCS leasing program. Those against argued that it would subvert previous laws and policies (e.g., coastal zone management and congressional moratoria), it might not comply with all NEPA requirements, and it might create pressure to develop areas that are currently under Congressional moratoria and Presidential withdrawals. The procedures under which a seismic inventory might be conducted are not established and are unrelated to this 5-year program. Therefore, this topic is not addressed in this EIS.

c. Neighboring Countries Drilling on OCS Border with the United States.

It was suggested that the United States should lease selected tracts on the OCS to counter petroleum development being planned by foreign countries, such as Cuba. It was suggested that this would protect the Nation's mineral rights in border areas. The issue of foreign governments exploring and developing petroleum resources in their territorial waters is unrelated to the 5-year program and is, therefore, not addressed by this EIS.

d. Biological Assessment and Opinion for Threatened and Endangered Species

Regarding the assessment of threatened or endangered species, several suggestions were made that the EIS include a biological assessment and associated U.S. Fish and Wildlife Service (FWS) and NMFS biological opinions or formal concurrences. Such information is not included in this EIS.

Section 7(a)(2) of the Endangered Species Act (ESA) (16 U.S.C. §1536(a)(2)) requires every Federal Agency, in consultation with and with the assistance of the Secretary of the Interior or the Secretary of Commerce, as appropriate, to ensure that any action it authorizes, funds, or carries out in the United States or upon the high seas is not likely to jeopardize the continued existence of any listed species or result in destruction or adverse modification of critical habitat. Section 402.02 of Title 50 of the Code of Federal Regulations (CFR) defines "action" as "all activities or programs of any kind authorized, funded, or carried out in whole or in part" This is achieved through consultation with the FWS and NMFS. Preparing the proposed 5-year program does not fit the definition of a Federal action, and ESA Section 7 consultation (whether informal or formal) at the 5-year program level is premature.

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The 5-year program, as required by Section 18 of the OCS Lands Act (43 U.S.C. §1344) identifies a proposed schedule of lease sales and prospective areas of the OCS which the Secretary believes will best meet the Nation's energy needs. The 5-year program process and subsequent Secretarial decisions are based on the four main principles of Section 18 that dictate which areas are reasonable for consideration of leasing in the upcoming 5-year timeframe. The proposed 5-year program defines, as broadly as possible, the portion of each planning area that is proposed for subsequent leasing consideration. Decision options for the 5-year program are preserved for the Secretary at the time the decision is made for each sale. Therefore, it is at the lease sale stage that MMS begins ESA Section 7 consultations.

In further support of the position not to consult at the 5-year program stage, the FWS and NMFS, in their final rulemaking amending the procedural regulations for Section 7 consultations (51 FR 19926) clarified that informal and formal consultations are a "post-application process when applicants are involved." The MMS would not approach this stage until a lease sale is held and a qualified bid is accepted. Further, we believe the intent of Congress when passing the ESA was to exclude consultations on actions that are remote or speculative in nature. While the following quote addresses ESA Section 7 early consultations (a pre-application process defined in the above referenced FR Notice), we believe it clearly expresses Congress' intent and is consistent with our position.

"The Committee expects that the Secretary will exclude from such early consultation those actions which are remote or speculative in nature and to include only those actions which the applicant can demonstrate are likely to occur. . . . The Committee further expects that the guidelines will require the prospective applicant to provide sufficient information describing the project, its location, and the scope of activities associated with it to enable the Secretary to carry out a meaningful consultation." (H.R. Rep. No. 567, 97th Cong., 2nd Sess. 25 [1982])

Ultimately, decisions regarding the size and configuration of a lease sale area, lease stipulations, and some mitigation measures are determined by the presale process. Prior to the presale process, greater uncertainties exist. Some of the uncertainties may result from an industry firm's interest in a particular area and their willingness to bid, which depend, in part, on continually changing perceptions about potential payoffs that might result. Additionally, our limitation on predicting a firm's investment decisions also limits our ability to predict OCS activities.

e. Life Cycle Effects of Oil and Gas Development

A recommendation was made that the EIS address all reasonable effects of new oil and gas development, production, and consumption. Such "full cycle" effects would include oil and gas exploration, construction, continued drilling, production, processing, treatment, refining, transportation and storage, final decommissioning, and ultimate consumption of the finished product. Additionally, the contribution of OCS development and consumption activities to global warming was stressed.

The scope of the proposed action analyzed in this EIS encompasses the exploration, development, production, and transport of hydrocarbons, and decommissioning. The consumption of the refined oil is not considered because the scope of this EIS is limited to issues that have a bearing on the decisions for the proposed leasing program. Consumption of hydrocarbons is considered at a broader level when decisions are made regarding the role of oil and gas generally, including domestic production and imports, in the Nation's overall energy policy. At the refinery stage, OCS oil is mixed with oil

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from other sources such that the OCS contribution to subsequent environmental impacts is not discernible.

f. Resource Estimates and Impact Analyses

A concern was expressed that oil-resource reserves should not be linked to conclusions for environmental impacts. It was felt that low oil-resource estimates, and subsequent low probabilities of commercial finds, may erroneously be equated with insignificant environmental impacts. The EIS does not equate oil resource estimates and impact significance. We assess the potential impacts of a large spill on environmental resources regardless of the oil-resource estimate. The analytical conclusions reflect the likely impacts if a large spill were expected to occur and contact the resource. The estimated number of large spills that could occur is a function of the oil-resource estimate. Therefore, the impacts could be greater to some environmental resources because they could be exposed to more large spills than other environmental resources.

A suggestion was made that the analysis of relative marine productivity should not be limited to a measure of the primary productivity of marine plants. This measure is used because it is well documented and understood. However, we agree that it should not be the only factor used; therefore, MMS uses other information as well in its consideration of the productivity of marine environments.

A suggestion was made that the environmental cost analysis model should consider catastrophic events on unique resources. We think that probabilistic models are not an appropriate venue for analyzing unlikely events with unknown probabilities. For this reason, catastrophic events are being considered separately.

A suggestion was made that the Market Simulation Model used to estimate the amount/percentage of alternative sources of energy that the economy would adopt if a new 5-year program is not implemented should be adjusted to reflect the possible export of Alaskan oil to Asian markets. The variables in this model reflect the best information available to MMS at this time.

A suggestion was made in the Alaska Region that MMS use development scenarios that reflect the concerns of affected communities rather than such industry-related factors as water depth and proximity to existing infrastructure. As is the intent of Council on Environmental Quality guidance, our development scenarios are constructed to identify those events that are most likely to happen to better focus the analysis of hypothetical activities. However, we address the concerns of affected communities in the analyses of such topics as possible impacts on species and on subsistence.

A suggestion was made that the EIS include a histogram in its comment response documents showing the numbers of comments received on particular issue areas. We do not think that this histogram is useful or appropriate. We carefully consider ALL comments received, not just those common to a number of responses.

3. Alternatives Analyzed in This EIS

Three principal criteria were used as the bases for determining whether a potential alternative was reasonable for the purpose of analyzing it in detail in this EIS. First, the structure of the alternative had to be related to the issues of size, timing, or location of possible future lease sales. This is consistent with the OCS Lands Act requirement that the USDOJ develop a schedule of potential lease sales that specifies, as precisely as possible, the size, timing, and location of those sales. Second, the

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alternative could not be redundant with one or more elements of other alternatives that were already being analyzed in this EIS. Finally, it must be consistent with the management principles and other considerations included in Section 18 of the OCS Lands Act. Each of the following alternatives except the No Action alternative reflects consideration of these criteria.

The alternatives in this EIS consider excluding entire planning areas from the program or deferring parts of planning areas otherwise included in the program. The MMS developed three exclusion alternatives (2, 3 and 4) during early scoping efforts. The three exclusion areas have either low industry interest (Cook Inlet) or are areas where leasing has not occurred for 10 or more years (North Aleutian Basin and Mid-Atlantic). The first three (5, 6, and 7) of the five deferral alternatives were developed during subsequent scoping based on written comments, information gathered at public scoping meetings, and consultation and coordination with affected States. Since the DEIS was published, two additional deferral alternatives have been added to the FEIS (8 and 9) based on DEIS comments and public hearings, and through continued consultation and coordination with affected States.

The following alternatives were included in the EIS.

Alternative 1—The Proposed Action

The USDOJ is considering leasing in the OCS areas of the Gulf of Mexico (Western and Central Planning Areas only), Alaska (Beaufort Sea, Chukchi Sea, North Aleutian Basin, and Cook Inlet Planning Areas), and the mid-Atlantic (in waters off of Virginia with possible restrictions).

Alternative 2—Exclude North Aleutian Basin

Leasing has not occurred in the North Aleutian Basin Planning Area since 1988 when 23 leases were acquired in MMS Lease Sale 92. No wells were drilled as a result of the leasing activity. The North Aleutian Basin was included in the 2007-2012 program because of interest expressed by industry, the State of Alaska, and local communities during scoping.

Alternative 3—Exclude Cook Inlet

Only two Cook Inlet leases have been purchased in the two most recent lease sales dating from 1997. Cook Inlet is included in the 2007-2012 Leasing Program as a special interest sale, meaning that the sale will not proceed unless there is industry interest expressed during the call for information prior to the sale.

Alternative 4—Exclude Mid-Atlantic

Leasing has not occurred in the Mid-Atlantic Planning Area since 1983. An area within the Mid-Atlantic offshore Virginia is included in the 2007-2012 leasing program based on comments from the State of Virginia and regional industries as a means to developing a local supply of natural gas. This will require discontinuation of the Congressional moratorium and modification of the 1998 Presidential withdrawal.

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Alternative 5—Defer Blocks Within 25 Miles of Virginia and Chukchi Sea Coasts

This alternative would defer from leasing those blocks within 25 miles of shore in the Mid-Atlantic Planning Area off Virginia and in the Chukchi Sea. This alternative is included as a possible means of reducing impacts to nearshore environments.

Alternative 6—Defer Blocks at the Mouth of the Chesapeake Bay

Under this alternative, the area offered in the Mid-Atlantic Planning Area would be reduced by eliminating the lease blocks within a wedge-shaped area offshore the entrance to the Chesapeake Bay. This alternative was included to evaluate possible reduction in impacts off the coast of Virginia and the mouth of the Chesapeake.

Alternative 7—Limit Leasing in North Aleutian Basin Planning Area to Blocks Offered in Lease Sale 92

Industry interest and estimated hydrocarbon potential fall largely within 990 blocks in the southeastern Bering Sea. This alternative is limited to these 990 blocks off the Alaskan Peninsula, the same lease sale area evaluated for the earlier Alaska Lease Sale 92.

Alternative 8—Defer Blocks in the Beaufort Sea to Avoid Conflicts with Whaling

This alternative is based on two alternatives that were included in the most recent Beaufort Sea Planning Area lease sale EIS to protect subsistence hunting offshore Barrow and Kaktovik.

Alternative 9 Defer Blocks Within 50 Miles of Virginia with Other Possible Restrictions

This alternative would not allow leasing within 50 miles of the Virginia coast. Other restrictions may apply including exploration only and gas only leasing.

Alternative 10—No Action

An analysis of the potential effects of not adopting an OCS Oil and Gas Leasing Program for 2007-2012 is required by the regulations that implement NEPA (40 CFR 1502.14(d)). The No Action Alternative considers the nature of the environmental impacts that might occur in absence of the potential development attendant to the proposed action. The analysis includes the possible environmental impacts of the most likely mix of market-driven substitutes for the energy (including oil imports) that might be produced if the proposed action was implemented. It also considers the impacts of developing other sources of energy (e.g., nonpetroleum fuels, solar, wind, wave, current, nuclear, conservation) that might substitute for some oil and natural gas produced from the OCS. See Section II.J for a complete description of the alternative and Section IV.K for its environmental impacts.

Preferred Alternative

The preferred alternative is a combination of several alternatives analyzed in this document and represents a reasonable balance between the development of available hydrocarbon resources and the protection of the environment by excluding development in the most environmentally sensitive areas. If this approach is adopted, all deferral areas for the Atlantic, the North Aleutian Basin, the Chukchi Sea and the Beaufort Sea as described in alternatives 5, 6, 7, 8, and 9 would be removed from any further consideration for leasing during this 2007-2012 program.

4. Alternatives Not Analyzed in This EIS

a. Exclude Portions of Planning Areas

The EIS includes five alternatives to defer blocks in four different planning areas. These alternatives were included based on communications during scoping, public meetings and hearings, comments on the DEIS, and through ongoing coordination and outreach with affected States. Other alternatives to remove some blocks from a particular sale, such as the area offshore and adjacent to the Arctic National Wildlife Refuge, require a focused analysis within a specific planning area. Such an analysis is performed for each sale or group of sales and ensures that the Secretary makes a fully informed decision about the actual blocks to offer for lease at the appropriate time, namely, when a Final Notice of Sale is issued for each sale.

We have more environmental and technical information from our studies, other agencies, industry, and the public at the lease sale stage to support more informed decisions about which blocks to offer. Reserving block-specific decisions until the lease sale stage ensures those decisions are made with the most current information.

Lease sale stipulations are developed or refined for particular blocks within a proposed sale area during the lease sale process. Most stipulations contain mitigation measures that protect the environment from oil and gas activities. Some blocks that could be leased with these protective measures may be excluded unnecessarily if we consider block deferral alternatives at the 5-year program stage.

b. Exclude All Alaska Planning Areas

Some requests were received to exclude the entire Alaska OCS from leasing consideration in the 2007-2012 program. Among the reasons for requesting this alternative were that the Alaska planning areas were too sensitive and fragile to sustain extended industrial development without unacceptable risk, that there is already enough oil development in Alaska, and that there is an inability to clean up spilled oil in Alaska waters.

To exclude all Alaska planning areas would not be reasonable in light of the purpose and need for the oil and gas leasing program, which is to meet the Nation's energy needs in a manner consistent with environmental protection and the laws and policies of affected States. The leasing schedule must ensure a proper balance between oil and gas production and possible environmental impacts, while also considering relative environmental sensitivity among OCS Regions and competing uses of the OCS. Furthermore, the potential effects of excluding the entire Alaska OCS from the 2007-2012 program are disclosed in the analysis for the no-action alternative.

c. Lease Entire Planning Areas (Areawide) in Alaska

A number of industry commenters requested that sales in Alaska for the 5-year program, especially in the Beaufort Sea and Cook Inlet Planning Areas, offer entire planning areas ("areawide" leasing). It was stated that this would provide flexibility and predictability of sales in Alaska.

Such an alternative for areawide sales in Alaska was not considered as an alternative in this EIS because there are limitations in terms of technology, oil and gas resource potential, industry interest, and environmental sensitivity in the Alaska frontier areas. For instance, there is a question of both

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technological feasibility and interest to produce and transport oil from the deepwater areas of the Beaufort Sea Planning Area far from shore. Also, including these planning areas in their entirety would be contrary to the expressed wishes of the Governor of Alaska.

d. Include All 26 Planning Areas in the Program

Numerous planning areas were not included in the proposed 2007-2012 program for several reasons. First of all, major portions of the OCS were withdrawn by the President from leasing consideration until June 30, 2012. Other areas were not included because they have low oil and gas resource value and are of little or no interest to the oil and gas industry at this time. Finally, some areas were not included because of requests from governors of affected States and continuing concerns from local communities about environmental issues analyzed previously. These areas were not analyzed as alternatives in this EIS for the same reasons they were not included in the proposed action.

e. “Gas Only” Leasing

We received many comments concerning the possibility of issuing “gas only” leases. Many comments supported their issuance as an alternative to oil and gas leasing in order to decrease the risk of the accidental discharge of oil into the marine environment. Others believed that “gas only” leases would not be a viable alternative because (1) they would not mitigate concerns about other environmental impacts of exploration and development, and (2) should industry discover commercial quantities of petroleum, they would probably be allowed to develop it. Currently, MMS has no authority to issue “gas only” leases. Therefore, in general, “gas only” leasing was not analyzed in this EIS as a viable alternative to the proposed action. However, alternative 9 identifies “gas only” as a possible restriction on OCS leasing off the coast of Virginia to be consistent with State policy. This is also subject to changes in Federal law.

5. Mitigation Measures Not Analyzed in This EIS

a. Revenue Sharing

A number of comments were received from local governments and Alaska Native interests suggesting that locally affected communities receive a fair share of the revenues generated by the OCS oil and gas leasing program. Legislation providing compensation or impact assistance to coastal States or communities is summarized below. Newly enacted legislation provides for a program of assistance to be administered by this Department. At this early stage in that program, any statements on the effect of such assistance on the environmental impacts analyzed in this EIS would be highly speculative. At the current level of authorization, the availability of such assistance is not a material factor in the determination of the size, timing, and location of lease sales within this 5-year schedule; therefore, further analysis of these proposals is beyond the scope of this EIS.

The Oil Pollution Act of 1990 (P.L. 101-380) includes comprehensive provisions pertaining to liability and compensation for both onshore and offshore oil spills. Title I of this Act provides for recovering costs relating to the following from a party responsible for an oil spill: removal, natural resource damage, real or personal property damage, lost subsistence use, lost tax revenue, lost profits and earning capacity, and increased public service expenses. Title I also established the Oil Spill Liability Trust Fund to be used to pay removal costs in accordance with the National Contingency Plan (under the Comprehensive Environmental Response Compensation and Liability Act of 1980); costs incurred by natural resource trustees; claims for uncompensated removal costs or damages; and administrative,

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operational, and personnel costs associated with administering the Act. Title IX of the Act includes provisions to increase limits of expenditure per incident from what they had been previously.

The Energy Policy Act of 2005 (Public Law 109-58), Section 384, establishes the Coastal Impact Assistance Program (CIAP) which authorizes funds to be distributed to eligible OCS oil and gas producing States and coastal political subdivisions. The program generally is intended to support projects and activities relating to coastal conservation and protection, and it specifies mitigating the impacts of OCS activities as a purpose for which the apportioned funds may be used by recipients.

Under the CIAP, the Secretary of the Interior is authorized to distribute to producing States and coastal political subdivisions \$250 million for each of the fiscal years 2007 through 2010. This money will be shared among Alabama, Alaska, California, Louisiana, Mississippi, and Texas and will be apportioned to each producing State and eligible coastal subdivision based upon formulas prescribed by the Act.

While local communities do bear risks and impacts associated with OCS oil and gas leasing activities, they also may enjoy economic benefits in the form of increased employment or higher paying jobs. Although these benefits are not direct compensation, they can offset somewhat the adverse effects that may result from OCS oil and gas activities. The extent of these benefits depends on a number of factors. In arctic Alaska, one of the avenues for increased employment is oil company contracts with Native corporations or subsidiaries of such corporations. Oil companies now employ few North Slope Borough residents, but they have been working to recruit and provide training to residents. The benefits and impacts to local communities are analyzed in this EIS and program document.

b. Lease Stipulations as Mitigation Measures

A number of suggestions were received in Alaska for attaching stipulations to OCS minerals leases intended to mitigate impacts of the program. Suggestions included (1) that companies be required to provide local employment, business, and/or educational opportunities; (2) that leases include seasonal restrictions on offshore activity during subsistence harvest periods to protect whale and migratory bird harvests; and (3) that companies be restricted to directional drilling from onshore to protect the oceans from oil spills. Suggested lease stipulations are not addressed in this programmatic EIS since lease stipulations are more appropriately analyzed at the lease sale stage. The MMS lease stipulations direct activity that occurs on OCS leases, while most of these suggestions relate to activities that are not regulated by the agency. The MMS is concerned about disruptions to subsistence harvests and actively encourages industry, local government, and Inupiat whalers to enter into agreements that address this issue (see Sections III.B.14.a, III.B.15.a, IV.B.3.k, and IV.B.3.l). The MMS has found that this approach provides the flexibility needed to address the ever-changing conditions faced by subsistence harvesters.

c. Zero Discharge in Water

A suggestion was made that there should be no discharge of drilling wastes or produced water from OCS facilities into the receiving water; instead, the MMS would require that these substances be reinjected into underground reservoirs. Such a measure to prohibit in-water discharge is not analyzed in this EIS. It is more appropriate to consider such a measure during review of specific leasing proposals and during review of the subsequent development and production plans.

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