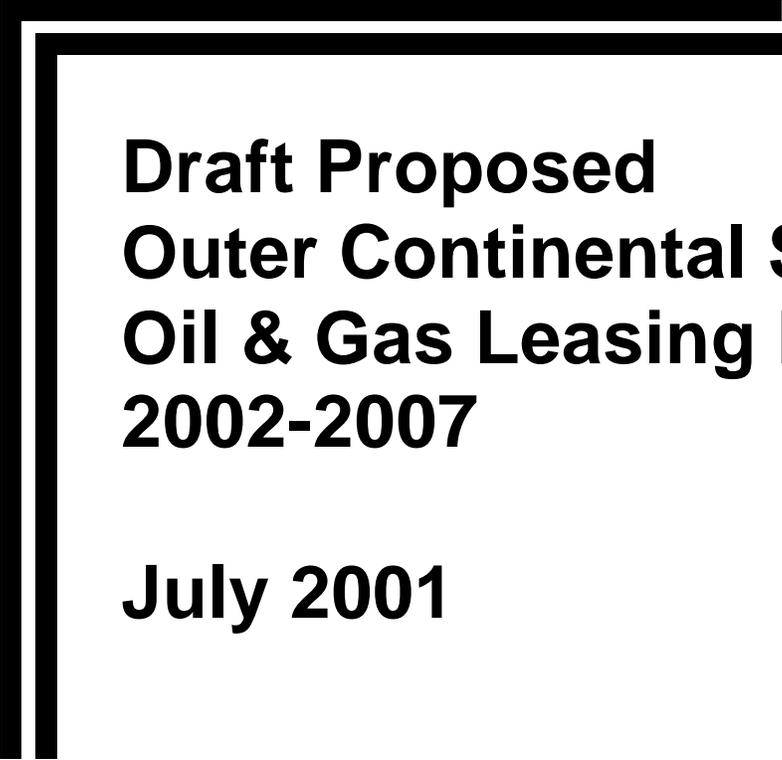


**Draft Proposed  
Outer Continental Shelf  
Oil & Gas Leasing Program  
2002-2007**

**July 2001**



**Draft Proposed  
Outer Continental Shelf  
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2002-2007**

**July 2001**

**Decision Document**  
**Draft Proposed Program for 2002-2007**

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A-1

## Preface

Management of the oil and gas resources of the Outer Continental Shelf (OCS) is governed by the OCS Lands Act, as amended, which sets forth procedures for leasing, exploration, and development and production of those resources. The Minerals Management Service (MMS) is the bureau within the Department of the Interior that is responsible for implementing the requirements of the OCS Lands Act. Section 18 of the Act calls for the preparation of an oil and gas leasing program indicating a 5-year schedule of lease sales designed to best meet the nation's energy needs.

The MMS is in the process of preparing a 5-year program for 2002-2007. This document constitutes the draft proposed program, which is the first in a series of leasing proposals developed for public review before the Secretary of the Interior may take final action to approve the new 5-year program for 2002-2007. The document consists of the parts described below.

- Part I summarizes the draft proposed program as decided by the Secretary of the Interior. It briefly relates the location and timing of OCS oil and gas lease sales proposed for 2002-2007 and discusses procedures for assuring the receipt of fair market value for leases as required by section 18.
- Part II describes the framework for developing the new program. It discusses the substantive and procedural requirements that are in place for preparing a program under section 18 and describes the MMS approach to meeting those requirements. This includes a discussion of the principles and factors relating to OCS oil and gas resources and environmental and social considerations that section 18 requires to be taken into account in deciding where and when to propose lease sales.
- Part III presents the options that the MMS prepared as a result of its analysis of the section 18 principles and factors. The options form the basis from which the Secretary chooses the draft proposed program for 2002-2007. Each set of options is prefaced with a brief summary of the relevant results of the section 18 analysis and the comments that the MMS received from interested and affected parties.
- Part IV presents the detailed section 18 analysis executed by the MMS to develop the options presented to the Secretary.
- The appendix to this document is a summary of all correspondence received by the MMS in response to its public request for comments on the preparation of a new 5-year program.

## ABBREVIATIONS

### A

ANWR	Arctic National Wildlife Refuge
AEWC	Alaska Eskimo Whaling Commission
AOGA	Alaska Oil and Gas Association
API	American Petroleum Institute

### B

bbl	barrels
BBO	billion barrels of oil
BBOE	billion barrels of oil equivalent
Btu	British thermal unit

### C

CFR	Code of Federal Regulations
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### D

DOE	Department of Energy
DWRRA	Deep Water Royalty Relief Act

### E

EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EIA	Energy Information Administration
EIS	Environmental Impact Statement
ESI	Environmental Sensitivity Index
ESPIS	Environmental Studies Program Information System

### F

FR	Federal Register
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### G

GOM	Gulf of Mexico
GRASP	Geologic Resource Assessment Program

### I

ICAS	Inupiat Community of the Arctic Slope
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### M

Mcf	thousand cubic feet
MM	million
MMS	Minerals Management Service
MT	metric ton

### N

NAS	National Academy of Sciences
NEPA	National Environmental Policy Act
NEPDG	National Energy Policy Development Group
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOIA	National Ocean Industries Association
NRC	National Research Council
NRDC	Natural Resources Defense Council

### O

OCS	Outer Continental Shelf
OCSLA	Outer Continental Shelf Lands Act

### T

Tcf	trillion cubic feet
-----	---------------------

# **I. SUMMARY OF DECISION—DRAFT PROPOSED PROGRAM FOR 2002-2007**

## **Introduction**

Section 18 of the OCS Lands Act requires the Secretary of the Interior to prepare and maintain a schedule of proposed OCS oil and gas lease sales determined to “best meet national energy needs for the 5-year period following its approval or reapproval.” Preparation and approval of a 5-year program must be based on a consideration of principles and factors specified by section 18. Those criteria, and the manner in which they have been considered in the preparation of the draft proposed program for 2002-2007, are summarized in part II.

This draft proposed program is an early step in the process of preparing a new 5-year program to succeed the current one ending on June 30, 2002. It is the first proposed schedule of OCS lease sales for the 2002-2007 timeframe. Before the new 5-year program may be approved and implemented, the MMS must accept and consider comments on the draft program and then issue for public review a proposed program and draft Environmental Impact Statement (EIS), as well as a proposed final program and final EIS. The preparation process is described in part II.

In developing the draft proposed program for 2002-2007, the MMS considered leasing only in the areas of the OCS that have not been withdrawn from disposition by leasing through June 30, 2012, under section 12 of the OCS Lands Act (see maps 1 and 2 in part III). As a result, the program proposes sales in the available offshore areas that have the highest oil and gas resource values and highest industry interest while recognizing concerns relating to potential environmental impacts and competing uses of ocean and coastal areas. The proposed schedule also is consistent with the recommendations of affected state and local governments.

The draft program proposes a total of 20 OCS lease sales in 8 areas (5 off Alaska and 3 in the Gulf of Mexico). Maps A and B show the areas proposed for leasing (program areas), and Table A lists the location and timing of the proposed lease sales.

## **Lease Sale Schedule**

### **Alaska Region**

In the Alaska Region, the draft proposed program schedules multiple lease sales in the Beaufort Sea and Cook Inlet\Shelikof Strait Planning Areas, which are the two areas of most interest to the oil and gas industry. Multiple offerings are consistent with the Governor of Alaska’s recommendations and the state’s administration of its offshore oil and gas program. Portions of these areas that have been excluded from previous OCS programs and sales are excluded as recommended by the Governor. In addition, the Chukchi Sea and Hope Basin Planning Areas are combined for leasing as they have been in previous programs. Two lease sales are proposed to pursue the high resource potential of the Chukchi Sea area in conjunction with potential natural gas resources extending into the adjacent Hope Basin area.

The Norton Basin Planning Area is included on the schedule as a potential source of natural gas for local residents and businesses, and it would be offered under a new approach to OCS leasing. The Norton Basin sale is proposed for 2003, but before the MMS proceeds, it will issue a request for nominations and comments and will move forward only if environmentally acceptable blocks are nominated by industry. If this does not occur, the sale will be postponed and a request for nominations and comments will be issued again the following year (and so on through the 5-year schedule until the sale is held or the schedule expires).

Maps 3-6 in part III depict the specific Alaska OCS areas proposed for lease sales.

### **Gulf of Mexico Region**

In the Central and Western Gulf of Mexico Planning Areas, which are the two areas of highest resource potential and interest, the draft proposed program would continue the long-running policy of scheduling annual areawide lease sales to which the industry has become accustomed. In the Eastern Planning Area, the program proposes two lease sales in a portion of the area that was identified for Sale 181 in the 5-year program for 1997-2002. That original Sale 181 area is the only part of the Eastern Planning Area not withdrawn under section 12. The portion of that area proposed for leasing in this draft proposed program consists of 256 blocks in deeper waters adjacent to the Central Gulf Planning Area. Selection of this area reflects the Secretary's decision in the proposed Notice of Sale for Sale 181 to exclude areas in the original Sale 181 area to address concerns expressed by the State of Florida and to minimize potential conflicts with military operations.

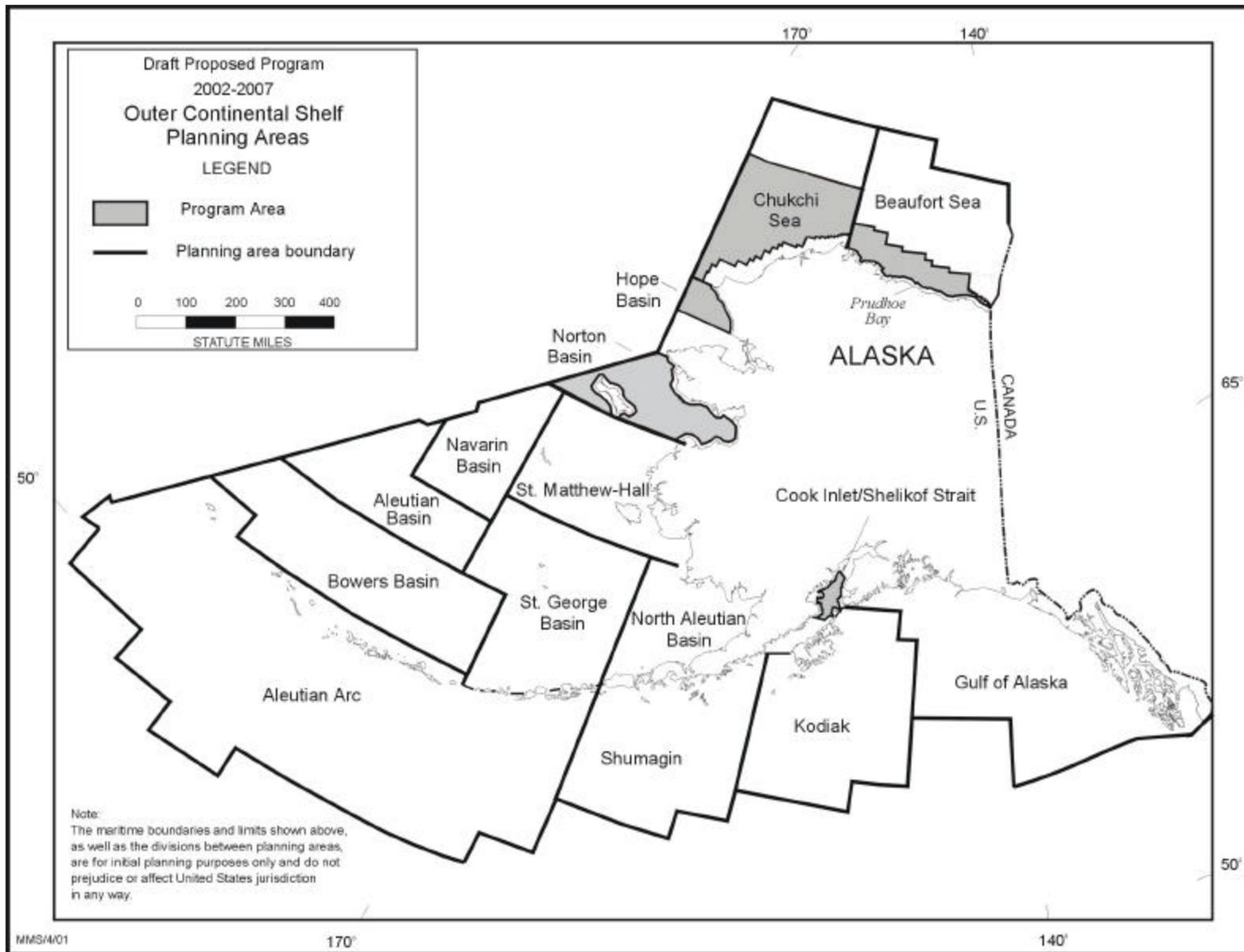
Maps 7 and 8 in part III depict the specific Gulf of Mexico OCS areas proposed for lease sales.

### **Assurance of Fair Market Value**

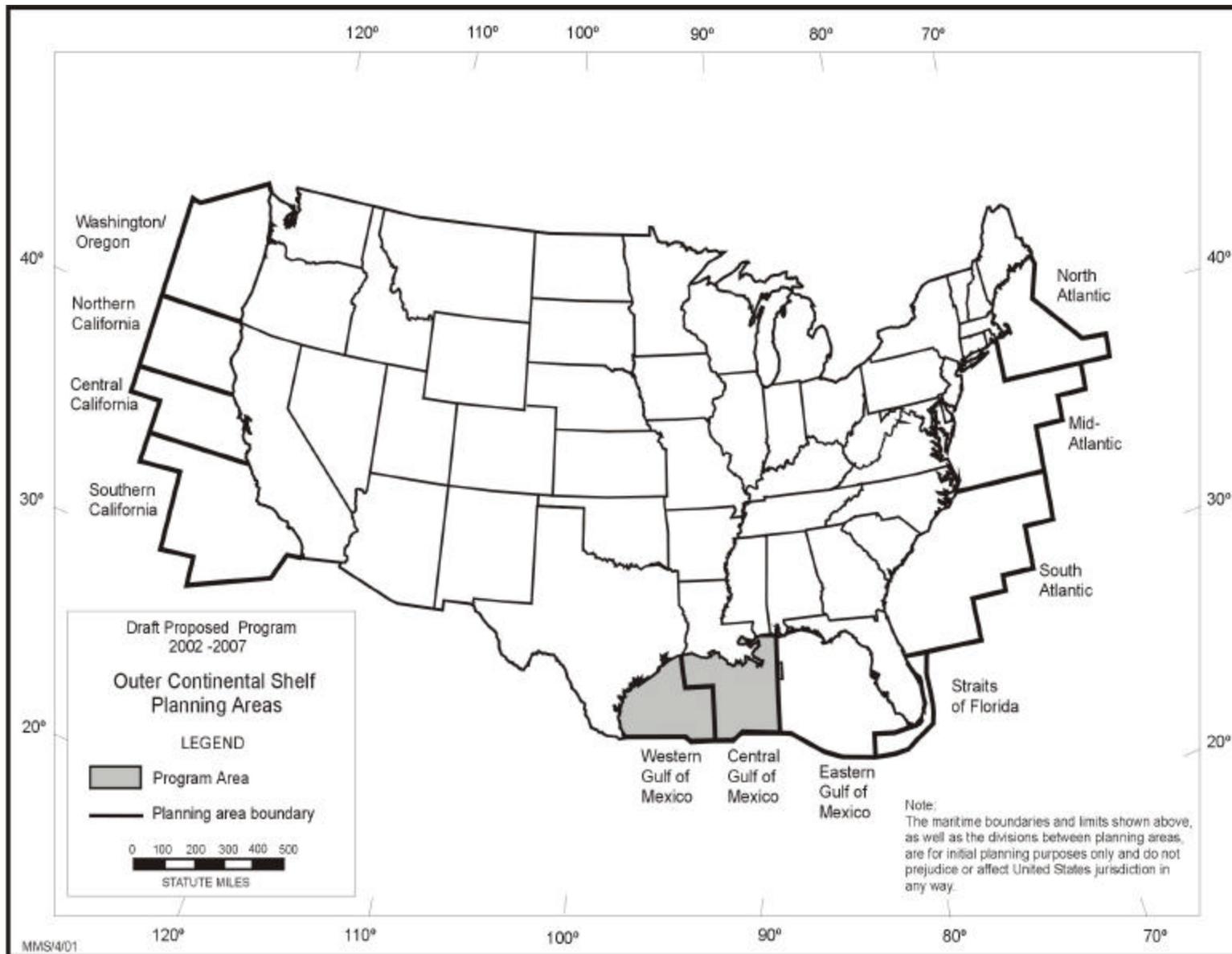
Section 18 of the OCS Lands Act requires receipt of fair market value for OCS oil and gas leases and the rights they convey. The draft proposed program provides for setting minimum bid levels by individual lease sale based on market conditions and for continuing to use a two-phase postsale bid evaluation process that has been in effect since 1983 to meet this requirement.

**Table A**  
**Draft Proposed Program for 2002-2007—Lease Sale Schedule**

<b>Sale No.</b>	<b>Area</b>	<b>Year</b>
184	Western Gulf of Mexico	2002
185	Central Gulf of Mexico	2003
186	Beaufort Sea	2003
187	Western Gulf of Mexico	2003
188	Norton Basin	2003
189	Eastern Gulf of Mexico	2003
190	Central Gulf of Mexico	2004
191	Cook Inlet/Shelikof Strait	2004
192	Western Gulf of Mexico	2004
193	Chukchi Sea/Hope Basin	2004
194	Central Gulf of Mexico	2005
195	Beaufort Sea	2005
196	Western Gulf of Mexico	2005
197	Eastern Gulf of Mexico	2005
198	Central Gulf of Mexico	2006
199	Cook Inlet/Shelikof Strait	2006
200	Western Gulf of Mexico	2006
201	Central Gulf of Mexico	2007
202	Beaufort Sea	2007
203	Chukchi Sea/Hope Basin	2007



Map A. Alaska



Map B. Lower 48 States

## **II. FRAMEWORK FOR FORMULATING THE DRAFT PROPOSED PROGRAM FOR 2002-2007**

### **A. Analytic Approach**

The analytic approach for preparing this draft proposed program differs from that taken for the previous 5-year program. The previous approach entailed revisiting and updating the then-existing approved 5-year program rather than beginning a full analysis of newly developed information relating to the requirements of section 18 of the OCS Lands Act. For example, whereas the draft proposed program for 1997-2002 relied on 1990 oil and gas resource estimates that had been developed for the 5-year program approved in July 1992, the analysis in this draft proposed program is based on the MMS's latest estimates, which were prepared based on data and information available as of January 1, 1999, and issued in the MMS publication *Outer Continental Shelf Petroleum Assessment, 2000*.

The use of the latest available information from the outset of this 5-year program preparation process is designed to provide better analysis and resulting decisions and to alleviate difficulties that have been encountered in the past in the transition from a draft proposed program based on older material to a proposed program employing new information and methodologies. The information bases used to develop and approve the 5-year program for 2002-2007 will be consistent to the maximum extent practicable throughout the preparation process.

While the intent is to base this draft proposed program on the newest available information, in some instances the analysis must refer to the information used to develop and approve the 5-year program for 1997-2002. The most notable example is in the analysis of environmental concerns (part IV.B). Because an environmental impact statement (EIS) for the new program will not be prepared until the next step in the process—issuance of the proposed program later in 2001—the draft proposed program relies greatly on the final EIS prepared for the 1997 program. However, that information is augmented by other more specific environmental documents and reports that have been prepared by the MMS, as well as a contracted environmental report that will provide basic information for the EIS for the new program.

In addition to the information presented in this document, the Secretary's decision on the draft proposed program for 2002-2007 will consider the following pertinent documents, which are incorporated by reference:

- Documents Pertaining to the 5-Year Program for 1997-2002
  - Decision Document, Proposed Final Outer Continental Shelf Oil and Gas Leasing Program 1997-2002 (August 1996)
  - Final EIS (August 1996)

- MMS Reports

- Environmental Report for the Outer Continental Shelf Oil and Gas Leasing Program: 2002-2007, OCS Study MMS 2001-0029 [prepared under contract by Continental Shelf Associates, Inc. and LGL Alaska Research Associates, Inc.] (March 2001)
- OCS Oil Spill Facts (March 1999)
- OCS Safety Facts (May 2000)
- Federal Offshore Statistics through 1999
- Reports in the Environmental Studies Program Information System (ESPIS)
- OCS Program Cumulative Effects 1992-1994 (MMS 97-0027)
- Future Natural Gas Supply from the OCS (April 2000)
- Outer Continental Shelf Petroleum Assessment 2000
- Deepwater Gulf of Mexico: America's Emerging Frontier (MMS 2000-022)

- Additional National Environmental Policy Act (NEPA) Documents

- Final EIS, Gulf of Mexico OCS Oil and Gas Lease Sales 169, 172, 175, 178, and 182 (MMS 97-0033)
- Final EIS, Gulf of Mexico OCS Oil and Gas Lease Sales 171, 174, 177, and 180 (MMS 98-0008)
- Final EIS, Gulf of Mexico OCS Oil and Gas Lease Sale 181 (MMS 2001-051)
- Final EIS, Proposed Use of Floating Production, Storage, and Offloading Systems on the Gulf of Mexico OCS, Western and Central Planning Areas (MMS 2000-090)
- Environmental Assessment, Gulf of Mexico Deepwater Operations and Activities (MMS 2000-001)
- Final EIS, Beaufort Sea Planning Area Oil and Gas Lease Sale 170 (MMS 98-0007)
- Final EIS, Beaufort Sea Oil and Gas Development/Northstar Project (July 1999)
- Draft EIS, Beaufort Sea Liberty Development and Production Plan (MMS 2001-0002)

- National Research Council (NRC) Reports

- Environmental Information for Outer Continental Shelf Oil and Gas Decisions in Alaska (1994)
- Assessment of the U.S. Outer Continental Shelf Environmental Studies Program, Volumes I-IV (1993)
- 

- U.S. Department of Energy Reports

- Annual Energy Outlook 2001 (December 2000)
- Offshore Technology Roadmap for the Ultra Deepwater Gulf of Mexico (2000)

- National Petroleum Council, Meeting the Challenges of the Nation's Growing Natural Gas Demand (1999)

## **B. Procedural Requirements**

The key steps in preparing a new 5-year program under section 18 of the OCS Lands Act and section 102(2)(C) of NEPA are described below.

### **Request for Comments and Suggestions**

On December 12, 2000, the MMS published in the *Federal Register* (65 FR 59328) a notice requesting comments and suggestions on the preparation of a new program for 2002-2007 and announcing the start of scoping for the EIS that will be prepared. The MMS also sent letters to the governors of affected states and the heads of interested federal agencies requesting their input by February 1, 2001. Comments received are summarized in the appendix.

### **Draft Proposed Program**

After considering an analysis of information relating to section 18 factors and principles (see parts III and IV), the Secretary selects a draft proposed program as the initial proposal for the 5-year program for 2002-2007. The MMS announces the draft proposed program in the *Federal Register* and distributes it to interested and affected parties for a 60-day comment period.

### **Proposed Program**

Preparation of a proposed program will be based on further section 18 analysis and consideration of the comments received by the MMS concerning the draft proposed program. The MMS will publish the proposed program in the *Federal Register* and submit it along with a draft EIS to the Congress, the Attorney General, the governors of affected states, and other interested and affected parties for a 90-day comment period. The MMS also will give the governors written dispositions of their comments on the draft proposed program.

### **Proposed Final Program**

Preparation of a proposed final program will be based on further section 18 analysis and consideration of the comments received by the MMS concerning the proposed program. The MMS will announce the proposed final program in the *Federal Register* and submit it to the President and the Congress along with copies of any comments received and an explanation of the disposition of any recommendations received from affected state and local governments and the Attorney General. The MMS will issue a final EIS with the proposed final program.

### **Program Approval**

Sixty days after the proposed final program is submitted to the President and the Congress, the Secretary may approve the new 5-year program.

## **C. Substantive Requirements**

Section 18 sets forth specific principles and factors to guide 5-year program formulation. Analysis of information relating to those principles and factors produces results that the MMS uses to develop reasonable options from which the Secretary may select a schedule of proposed lease sales indicating, as precisely as possible, the size, timing, and location of leasing activity determined to best meet national energy needs. A brief overview of those section 18 requirements is presented below.

### **Energy Needs**

Section 18(a) states that the purpose of the 5-year OCS oil and gas leasing program is to help meet the nation's future energy needs. Part IV.A presents an analysis of anticipated energy needs. The analysis includes discussions of the U.S. Department of Energy's projections of national energy needs according to *Annual Energy Outlook 2001 (December 2000)*, the potential contribution of OCS oil and gas production in meeting those needs, alternatives to OCS production, and considerations relating to regional energy needs.

### **Environmental Considerations**

Section 18(a)(1) provides that in addition to examining oil and gas resources, the Secretary is required to consider the values of other OCS resources and the potential impacts that OCS oil and gas activities could have on those resources and on the marine, coastal, and human environments. Part IV.B presents the main analysis of environmental issues. The analysis identifies issues and concerns that have been raised by commenters and presents information relating to safe and sound operations, as well as pertinent findings of the final EIS for the 5-year program for 1997-2002 and other relevant NEPA documents and environmental information.

### **Factors for Determining Timing and Location of Leasing**

Section 18(a)(2) lists eight factors that are to be considered in deciding the timing and location of oil and gas activities among the different areas of the OCS. While some of these factors lend themselves to quantification to facilitate comparison among planning areas, others do not and need to be considered qualitatively. Each of the eight factors provided in 18(a)(2)(A) through (H) is listed below along with references to the parts of the draft proposed program analysis that address them.

#### ***(A) Geographic, Geological, and Ecological Characteristics***

The main sources of information on geographic, geological, and ecological characteristics of the OCS planning areas considered in preparing the draft proposed program are the final EIS for the 5-year program for 1997-2002 (August 1996) and the contractor-prepared environmental report. Other sources include recent NEPA documents prepared for leasing and operations activities, the MMS cumulative effects report (97-0027), the 1994 NRC report concerning information for Alaska OCS decisions, scientific study results, which are reported in the environmental studies

program information system (ESPIS) database, and information submitted or cited by commenters.

***(B) Equitable Sharing of Developmental Benefits and Environmental Risks***

Part IV.C briefly analyzes the equitable sharing factor. It discusses the analyses and findings of previous 5-year programs and briefly cites new developments and their potential influence on the nature and distribution of benefits and risks associated with the size, timing, and location options available for consideration. The analysis also describes the significant effect that the existing long-term withdrawal of areas from leasing has on equitable sharing by effectively precluding expansion of the lease sale schedule to include areas that were not proposed for leasing in the approved 5-year program for 1997-2002. The withdrawal is first described in part III.C.

***(C) Location with Respect to Regional and National Energy Markets and Needs***

Part IV analyzes regional and national energy needs. The final EIS for the 5-year program for 1997-2002 and the contractor-prepared environmental report also describe existing regional oil and gas infrastructure and its relationship to new OCS leasing, and additional relevant information is available in recent lease sale EISs and other NEPA documents cited above.

***(D) Location with Respect to Other Uses of the Sea and Seabed***

Part IV.B discusses competing uses of the OCS. This summary is based on information provided in the final EIS for the 5-year program for 1997-2002, the contractor-prepared environmental report, the 1998 MMS cumulative effects report, the recent lease sale EISs and other NEPA documents cited above, environmental study results (ESPIS), and information submitted or cited by commenters.

***(E) Interest of Potential Oil and Gas Producers***

Part IV.C describes industry interest as indicated in response to the December 12, 2000, request for comments that was issued by the MMS. The discussions of size, timing, and location options in part III also include summaries of industry interest, and the appendix summarizes all comments received from the oil and gas companies and associations.

***(F) Laws, Goals, and Policies of Affected States***

The discussions of size, timing, and location options in part III include summaries of the relevant laws, goals, and policies—and federally approved coastal zone management programs and policies—that state governments identified in responding to the MMS request for comments. The appendix summarizes all comments received from state governors and government agencies.

### ***(G) Relative Environmental Sensitivity and Marine Productivity***

Part IV.C analyzes environmental sensitivity and marine productivity based on the latest available information from the National Oceanic and Atmospheric Administration (NOAA) and the National Marine Fisheries Service (NMFS).

### ***(H) Environmental and Predictive Information***

Part IV.B presents an analysis of environmental concerns that summarizes relevant information and findings from the final EIS for the 5-year program for 1997-2002, the contractor-prepared environmental report, recent lease sale EISs and other NEPA documents, and other MMS reports and studies.

### **Balancing Potential Environmental Damage, Discovery of Oil and Gas, and Adverse Impact on the Coastal Zone**

Section 18(a)(3) requires the Secretary to render decisions on the timing and location of OCS leasing that strike a balance between environmental and developmental principles based on a consideration of the factors comprising section 18(a)(2) listed above. Part IV.C addresses the balancing requirement by presenting a comparative analysis of the planning areas available for leasing consideration.

The centerpiece of the comparative analysis is an estimation of net social benefits for each available planning area that is derived by calculating the value of oil and gas resources minus the cost to industry and the environmental and social costs of developing those resources (with consumer surplus benefits then added). The comparative analysis also ranks the available planning areas according to quantified information relating to environmental sensitivity and marine productivity and according to the interest of potential oil and gas producers. The other section 18(a)(2) factors do not lend themselves as readily to quantification and are treated qualitatively. The comparative analysis also examines additional qualitative information pertaining to industry interest, the findings and purposes of the OCS Lands Act Amendments of 1978 (Title II), the comments and recommendations of interested and affected parties, and other information relevant to striking a proper balance under section 18(a)(3).

The statute does not specify what the balance should be or how the factors should be weighed to achieve that balance, leaving to the Secretary the discretion to reach a reasonable determination under existing circumstances.

## **D. Judicial Guidance**

The new 5-year program will be the sixth prepared by the Department of the Interior. The first three programs prepared and approved under section 18 were challenged in court—in 1980, 1982, and 1987. The U.S. Court of Appeals for the District of Columbia Circuit decided all of those lawsuits. The new 5-year program is being prepared in accordance with guidance provided in those decisions, which are cited as follows:

*California I* [California v. Watt, 688 F2d 1290 (D.C. Cir. 1981)];

*California II* [California v. Watt, 712 F2d 584 (D.C. Cir. 1983)]; and

*NRDC* [Natural Resources Defense Council, *et al.* v. Hodel, 865 F2d 288 (D.C. Cir. 1988)].

No lawsuits were filed against the 5-year programs approved for 1992-1997 and for 1997-2002.

### **III. DRAFT PROPOSED PROGRAM OPTIONS**

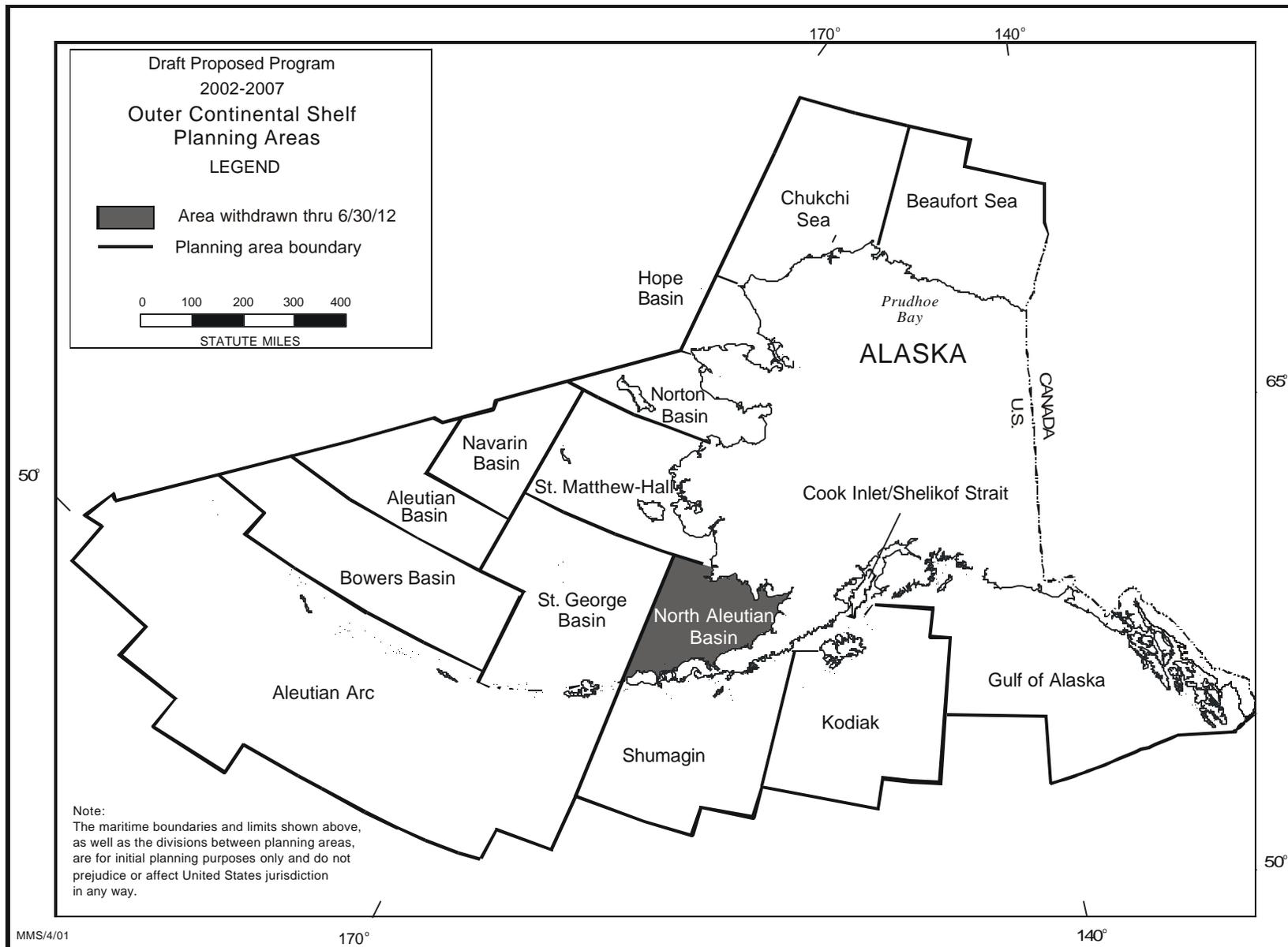
#### **A. Size, Timing, and Location Options**

##### **Introduction**

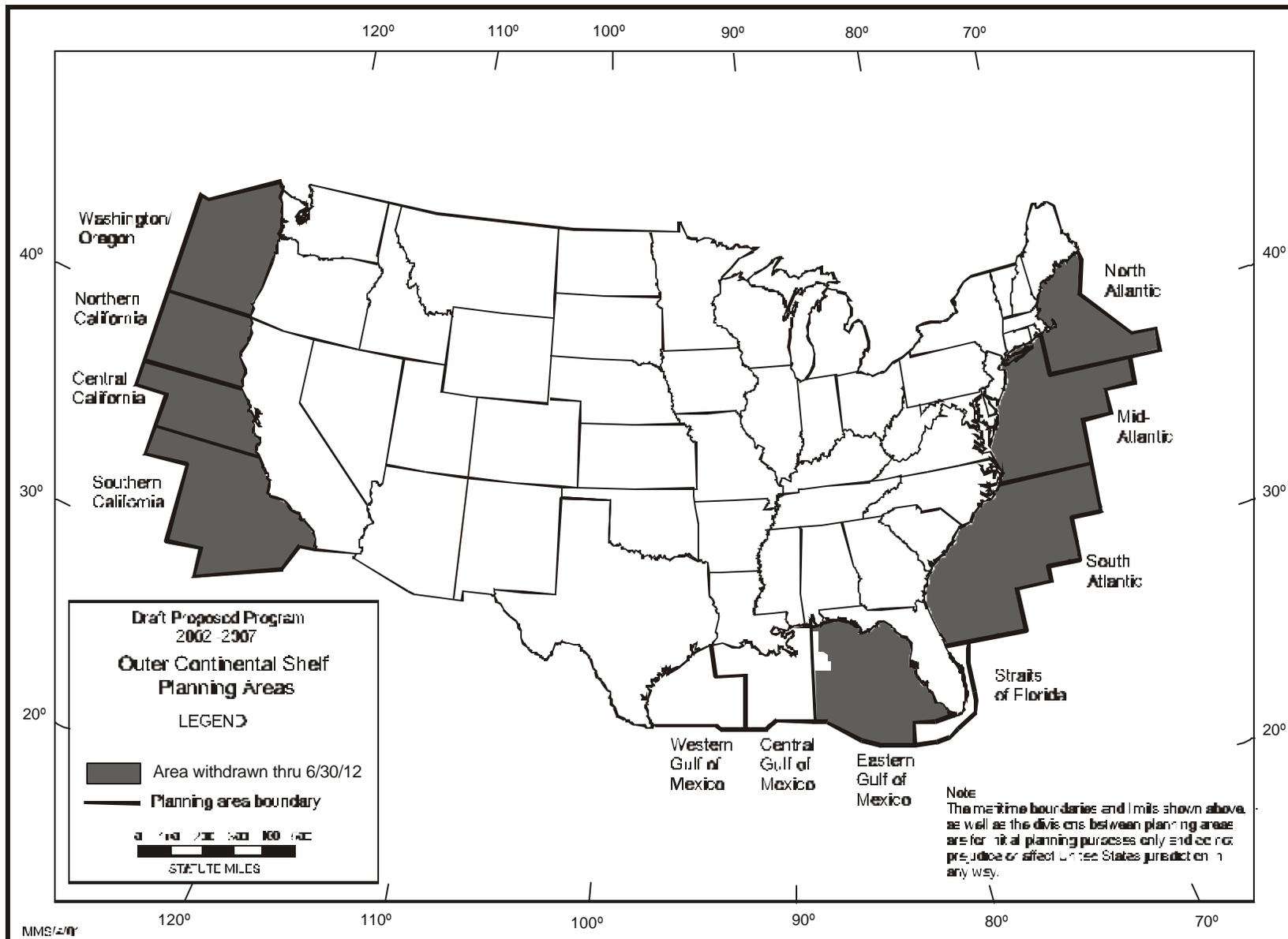
This part presents the options from which the Secretary chooses the size, timing, and location of leasing for 2002-2007. The MMS has formulated these options based on its consideration of information relating to the section 18 principles and factors and based on the results of consultation with interested and affected parties.

The OCS is divided into 26 planning areas. Eight whole planning areas located off the east and west coasts and off Alaska, as well as most of the Eastern Gulf of Mexico Planning Area located off Florida, are withdrawn from disposition by leasing until after June 30, 2012. It is noteworthy that one of the withdrawn areas—the Southern California Planning Area—has active, producing OCS leases but has not been proposed for leasing in the two previous 5-year programs. Since the withdrawn areas will not be available for lease sales scheduled in the 5-year program for 2002-2007, they are not analyzed in light of the section 18 principles and factors, and no program options are offered pertaining to those areas. Maps 1 and 2 show which areas of the OCS are available for leasing in the new program and which have been withdrawn. The boundaries of all 26 planning areas are delineated in detail in the MMS publication *Planning Area Descriptions of the Outer Continental Shelf as of August 1996*.

The section 18 objectives of formulating a program to “best meet national energy needs” and to assure the receipt of fair market value for leases and the rights they convey are significant determinants of the size, timing, and location options. The analyses of net social benefits and the factors specified by section 18(a)(2) provide a solid basis for developing options. Those analyses, which are presented in part III, examine economic, social, and environmental values; oil and gas resource potential and industry interest; distribution of benefits and risks; competing uses of the OCS; regional energy needs; and the laws, goals, and policies of affected states. By considering that information for each area of the OCS available to be proposed for leasing in the next 5-year program, the MMS is able to weigh different resources, values, and policies in formulating reasonable options that can be selected by the Secretary to achieve the balance required by section 18(a)(3).



Map 1. Alaska



Map 2. Lower 48 States

## **Additional Considerations**

The location and size of lease sales in a 5-year program are largely determined by the configuration of planning areas and program areas for leasing consideration. The OCS planning areas initially were established following the enactment of the OCS Lands Act Amendments of 1978 and have been reconfigured several times over the past 20 years. The entire Central and Western Gulf of Mexico Planning Areas (with the exception of blocks in and around the Flower Garden Banks National Marine Sanctuary) historically have been included in OCS lease sales. Other planning areas have been subdivided to identify smaller areas of leasing consideration within them (i.e., program areas). Previous 5-year programs have delineated program areas within Alaska OCS planning areas proposed for leasing and within the Eastern Gulf of Mexico Planning Area.

The draft proposed program options provide for scheduling lease sales in the Central and Western Gulf of Mexico Planning Areas and in defined program areas off Alaska and in the Eastern Gulf. Each lease sale that is scheduled in the approved 5-year program for 2002-2007 will be subjected to an established prelease evaluation and decision process in which interested and affected parties may participate. That process examines the proposed lease sale, starting with the area identified as available for leasing consideration in the 5-year program, and considers reasonable alternative lease sale configurations within that area (i.e., no sale may be larger than the original proposal). The prelease process leads to the final decision on the size, timing, and location of each OCS lease sale.

Size, timing, and location options should be designed to mitigate drainage of federal oil and gas resources on unleased lands and associated revenue losses that could occur as a result of existing or anticipated development activity on adjacent federal and state leases. Acquisition of new geological and geophysical data is a relevant consideration in that such data become available sooner, more frequently, and more predictably for the areas scheduled for lease sales in a 5-year program. Finally, the scheduling of lease sales must allow time for orderly and deliberate preparation for each sale, including the acquisition and analysis of relevant scientific information and the completion of the prelease evaluation and decision process.

## **Options for Scheduling Lease Sales**

Options for scheduling lease sales are presented for the 17 full OCS planning areas and one partial planning area available for leasing during 2002-2007. Background information on leasing and drilling history, results of comparative analyses, and the comments of interested and affected parties precedes each set of lease sale options. The comparative analyses summaries are condensed from part IV.C, and the comment summaries are adapted from the appendix. Part IV also discusses environmental issues and concerns. A brief discussion concerning the rationale for individual options that propose lease sales follows each set.

Options for “No sale” are intended to give the Secretary the ability to decide at this first stage of the 5-year program preparation process that such areas will be excluded from the 5-year program for 2002-2007 and therefore will not be analyzed further. Options for “Other” are intended to provide the Secretary the opportunity to entertain the full range of possible actions that could be

proposed and considered in accordance with section 18. Additional options are described in the discussions presented below, and those that propose to schedule a lease sale refer to maps depicting the areas proposed for leasing consideration (program areas).

## **ALASKA REGION**

The Alaska Region consists of 15 OCS planning areas. The North Aleutian Basin Planning Area has been withdrawn from disposition by leasing until after June 30, 2012. Leasing options for the 14 available Alaska OCS planning areas are presented below.

### **BEAUFORT SEA PLANNING AREA**

**Background.** Seven lease sales have been held in this planning area since 1979. The 5-year program for 1997-2002 scheduled two Beaufort Sea sales. The first, Sale 170, was held in August 1998, and the second was canceled in January 2001 after it had been delayed to the point that there would not be enough time to complete the prelease evaluation and decision process before the current 5-year program expires. Thirty exploration wells have been drilled, and the MMS has approved development and production plans for the Northstar project, which straddles state and federal waters. The MMS also has received a development and production plan for the Liberty Project, which is wholly located on the federal OCS, and has prepared a draft EIS. The State of Alaska administers an oil and gas program in state waters and has issued a 5-year program for 2001-2005 that schedules annual areawide Beaufort Sea lease sales. The Endicott Field produces oil from adjacent state waters.

**Key Comparative Results.** The net benefits for this planning area are estimated at about \$2.9 billion in the lower price scenario and at \$11.6 billion in the higher price scenario, which place it third of the 18 areas analyzed. The area is in the mid-range of environmental sensitivity and primary productivity. Secondary (marine) productivity is low, as commercial fisheries data indicate no ports with significant landings in this area. Seven companies expressed interest in leasing in this planning area, ranking it fourth overall in industry interest.

**Selected Comments.** The Governor of Alaska indicated general support for the OCS program, stated that the Beaufort Sea Planning Area likely would be a focal point in the new 5-year program, and called for predictability and cooperation between the state and MMS in administering their offshore programs. The Governor also cited seasonal ice conditions in this area as a concern and recommended that future lease sale planning consider the results of recent tests demonstrating limited oil spill response capability under such conditions. The Mayor of the North Slope Borough reiterated the Borough's continuing concerns and opposition regarding the OCS program and preference for onshore oil and gas development. The Natural Resources Defense Council (NRDC) and others expressed opposition to leasing in this area, citing concerns relating to whales, polar bears, birds and endangered and threatened species. It specifically recommended excluding the entire area north of the Arctic National Wildlife Refuge (ANWR) in the Beaufort Sea. The Wilderness society recommended excluding the Beaufort Sea Planning Area, especially the area off ANWR. The Alaska Eskimo Whaling Commission (AEWC) urged the MMS to study further the effects of spilled oil in ice conditions and the effects of drilling muds and discharges in the arctic environment. The president of the Inupiat Community of the

Arctic Slope (ICAS) endorsed the comments of the AEW. Unocal and Phillips Alaska recommended the Alaska State annual areawide leasing program as a model for the OCS program in this area, and Chevron recommended annual areawide sales. The Alaska Oil and Gas Association (AOGA) echoed the governor's comments citing the Beaufort Sea Planning Area as a focal point in the Alaska Region in the new 5-year program. The U.S. Fish and Wildlife Service recommended excluding the areas off ANWR and the Teshekpuk Lake Surface Protection Area.

### **Options**

- (1) Five sales (2003, 04, 05, 06, 07) in the program area depicted on Map 3
- (2) Three sales (2003, 05, 07) in the same area as Option 1
- (3) One sale (2003) in the same area as Option 1
- (4) No sale
- (5) Other

### **Discussion**

**Option 1** would be most responsive to industry recommendations for access to this area and would be most consistent with the State of Alaska's annual areawide approach to leasing in state waters. **Option 2** would provide a somewhat slower pace. **Option 3** would provide for an even slower pace of leasing. The proposed program area is identical to the area proposed in the 5-year program for 1997-2002.

## **CHUKCHI SEA AND HOPE BASIN PLANNING AREAS**

**Background.** The Chukchi Sea and Hope Basin Planning Areas have been combined for leasing consideration since they were proposed for a joint sale in the 5-year program for 1992-1997 because of the likelihood that promising hydrocarbon prospects in the Chukchi area extend into the Hope Basin area. Two lease sales have been held in the Chukchi Sea Planning Area, the most recent in 1991, and there are no active leases in the areas. Five exploration wells have been drilled, and although they did not discover commercial volumes of resources, they did provide encouraging geologic information. The area has tremendous geologic potential that is hampered by high costs associated with exploration and development in this area, and the absence of a regional transportation infrastructure has served to dampen industry interest. The Chukchi Sea/Hope Basin sales that have been proposed in previous programs were not held, and no sales have been held in the Hope Basin area. The most recent sale proposed in these areas, Sale 183, was canceled in 1999 primarily due to low oil prices and corresponding low industry interest at that time.



**Key Comparative Results.** The net benefits for the Chukchi Sea Planning Area are estimated at about \$805 million in the lower price scenario and \$18.8 billion in the higher price scenario, which place it fifth of the 18 areas analyzed. Hope Basin has no development value in either scenario, although it is estimated to contain oil and gas resources in both scenarios. Chukchi Sea and Hope Basin are both in the mid-range of environmental sensitivity and primary productivity. Secondary (marine) productivity is low, as commercial fisheries data indicate no ports with significant landings in either area. No companies expressed interest in leasing in either planning area.

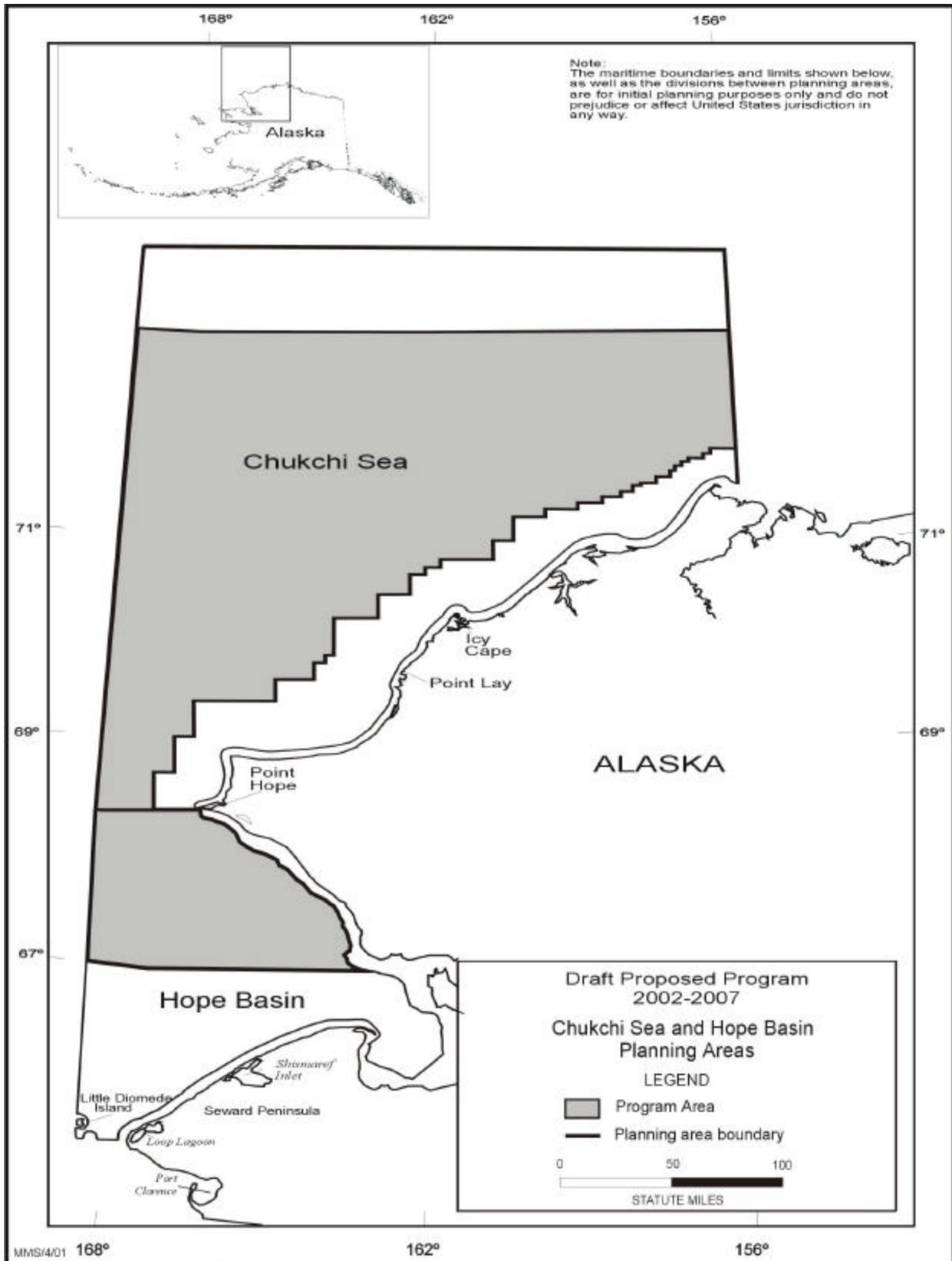
**Selected Comments.** The Governor of Alaska cited seasonal ice conditions in the Chukchi Sea as a concern and recommended that future lease sale planning consider the results of recent tests demonstrating limited oil spill response capability under such conditions. The Governor also reiterated the state's long-standing recommendations to exclude the Chukchi Polynya and blocks in the vicinity of Barrow. The Mayor of the North Slope Borough reiterated the Borough's continuing concerns and opposition regarding the OCS program and its preference for onshore oil and gas development. The NRDC expressed opposition to leasing in this area, citing concerns relating to whales, walrus, birds, polar bears, and nearby refuges and preserves. The Wilderness Society recommended excluding the Chukchi Sea and Hope Basin Planning Areas. The AEWG urged the MMS to study further the effects of spilled oil in ice conditions and the effects of drilling muds and discharges in the arctic environment. The president of the ICAS endorsed the comments of the AEWG. The AOGA recommended that the Chukchi Sea and Hope Basin Planning Areas be included in the new leasing program.

## **Options**

- (1) Two sales (2004, 07) in the program area depicted in Map 4
- (2) One sale (2007) in the same area as Option 1
- (3) No sale
- (3) Other

## **Discussion**

**Option 1** would combine the Chukchi Sea area of significant resources and value with the Hope Basin area of negligible value as in the 5-year program for 1997-2002. This is intended to allow access to some of the higher potential Chukchi Sea prospects that have been identified by the MMS as possibly extending into the Hope Basin area. The proposed program area within the Chukchi Sea Planning Area would exclude a number of nearshore blocks based on environmental and multiple-use issues and would exclude the Chukchi Polynya and blocks near Barrow as recommended by the Governor of Alaska. The nearshore blocks have never been offered, primarily because bowhead whales migrate through the area and are hunted by native subsistence users. The whale migration corridor off the northern coast of Alaska is closer to shore and more restricted in the Chukchi Sea than in the Beaufort Sea. The significant but not commercial discoveries of hydrocarbons occurred seaward of the blocks proposed to be



Map 4. Chukchi Sea and Hope Basin Planning Areas (Options 1 and 2)

excluded. The Hope Basin portion would be expanded from what was proposed in the 5-year program for 1997-2002. One possible development scenario is that gas from Hope Basin could be an energy source for local use. **Option 2** would schedule only one sale in this combined area in the last year of the program.

## **NORTON BASIN PLANNING AREA**

**Background.** One lease sale has been held in 1983. Six exploration wells have been drilled with no commercial hydrocarbon discoveries. Previous exploration activities targeted oil prospects. There are no existing leases, and the area was not scheduled for leasing in the 5-year programs for 1992-1997 and 1997-2002.

**Key Comparative Results.** Norton Basin has no development value in either the lower or higher price scenario, although it is estimated to contain gas resources in both scenarios. The area is in the mid-range of environmental sensitivity and primary productivity. Secondary (marine) productivity is low, as commercial fisheries data indicate no ports with significant landings in this area. No companies expressed interest in leasing in this area.

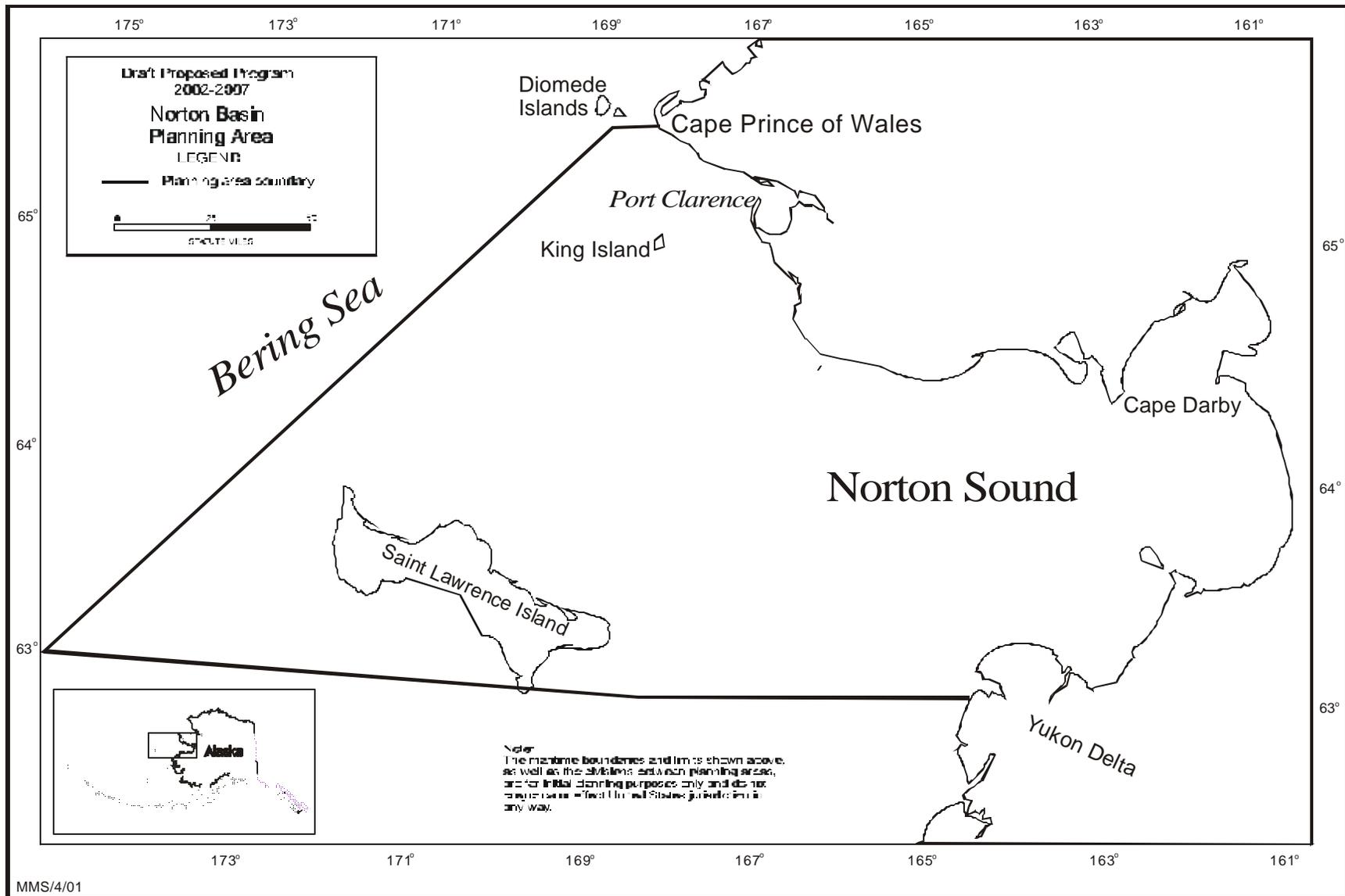
**Selected Comments.** The Governor of Alaska cited seasonal ice conditions in Norton Sound as a concern and recommended that future lease sale planning consider the results of recent tests demonstrating limited oil spill response capability under such conditions. The Mayor of the North Slope Borough reiterated the Borough's continuing concerns and opposition regarding the OCS program and its preference for onshore oil and gas development. The NRDC and others expressed general opposition to OCS leasing off Alaska. The AEWG urged the MMS to study further the effects of spilled oil in ice conditions and the effects of drilling muds and discharges in the arctic environment. The president of the ICAS endorsed the comments of the AEWG. The AOGA recommended that the Norton Basin Planning Area be included in the new leasing program.

### **Options**

- (1) One "special" sale (2003) in the planning area depicted in Map 5
- (2) No sale
- (3) Other

### **Discussion**

The Norton Basin Planning Area is viewed as a potential source of natural gas for communities and industries on the west coast of Alaska. It is proposed for a lease sale in keeping with section 102(9) of the OCS Lands Act Amendments of 1978, which states as a purpose of the statute, "to



Map 5. Norton Basin Planning Area (Option 1)

insure that the extent of oil and natural gas resources of the Outer Continental Shelf is assessed at the earliest practicable time.” The objective of this leasing option is to foster exploration in a frontier OCS area that is of low interest but unknown potential without investing the considerable time and effort required for holding a standard lease sale (which ultimately might draw no bids). To achieve this, the MMS will consider offering the area according to a process providing for nomination of specific blocks for leases issued with special terms and conditions.

The general approach to leasing in this area would entail requesting nominations and comments before deciding whether to proceed with the competitive sale. The request would outline the general provisions of lease issuance, e.g., area eligible for leasing consideration, potential special stipulations, requirement to submit an acceptable exploration plan within three years or lose the lease, and possible cash bonus bid deferral (but not forgiveness), or other incentive. If there is no interest expressed, the MMS would defer the sale for one year and reissue the request for nominations and comments the next year (and so on through the term of the 5-year program). This assumes that deferring the sale would not be a significant revision of the program under section 18(e). If at some point there is interest and blocks are nominated by industry and deemed appropriate for leasing by the MMS, the lease sale would proceed to offer leases with a commitment to explore. Only one round of lease issuance would occur during this 5-year program. If the Norton Basin lease sale is held using this approach and is successful in promoting exploration in that area, a similar approach could be considered for other frontier areas of the OCS in future 5-year programs.

As with any OCS lease sale, the prelease procedures and the lease terms and conditions would be adopted at the individual sale stage and not at the 5-year program stage of the overall OCS process.

## **COOK INLET/SHELIKOF STRAIT PLANNING AREA**

**Background.** Four lease sales have been held in this area, the most recent in 1996. Thirteen exploration wells have been drilled with no commercial hydrocarbon discoveries. There are two active leases in the area. The 5-year program for 1997-2002 scheduled one lease sale in the area, which was subsequently canceled in 1999 primarily due to low oil prices and low industry interest. There is production in state waters adjacent to the Cook Inlet OCS, and the state’s current 5-year program schedules annual areawide sales in state waters.

**Key Comparative Results.** The net benefits for this planning area are estimated at about \$642 million in the lower price scenario and at \$2 billion in the higher price scenario, placing it sixth of the 18 areas analyzed. The area is in the lower range of environmental sensitivity. It is in the higher range of primary productivity and produces roughly 3 percent of Alaska’s commercial fisheries landings exclusive of the North Aleutian Basin Planning Area. Three companies expressed interest in leasing in this planning area, ranking it fifth overall in industry interest.

**Selected Comments.** The Governor of Alaska stated that the Cook Inlet/Shelikof Strait Planning Area would be a focal point in the new 5-year program and called for predictability and cooperation between the state and the MMS in administering their offshore programs. He cited seasonal ice conditions in the Cook Inlet as a concern and recommended that future lease sale

planning consider the results of recent tests demonstrating limited oil spill response capability under such conditions. The Governor also reiterated the state's long-standing recommendation to exclude the Shelikof Strait portion of the planning area. The Kachemak Bay State Parks Citizen Advisory Board and Cook Inlet Keeper expressed opposition to OCS leasing in Cook Inlet. The United Cook Inlet Drift Association expressed opposition to leasing north of the Anchor Point latitude due to navigation concerns related to drift net fishing. The NRDC and others expressed opposition to leasing in this planning area, citing concerns relating to beluga whales, Steller's sea lions, fisheries, and nearby parks and refuges. The Wilderness Society recommended excluding the Cook Inlet/Shelikof Strait Planning Area. The Unocal, BP Alaska, and Phillips Alaska recommended including this planning area. The AOGA echoed the governor's comments citing the Cook Inlet area as a focal point in the Alaska Region in the new 5-year program.

### **Options**

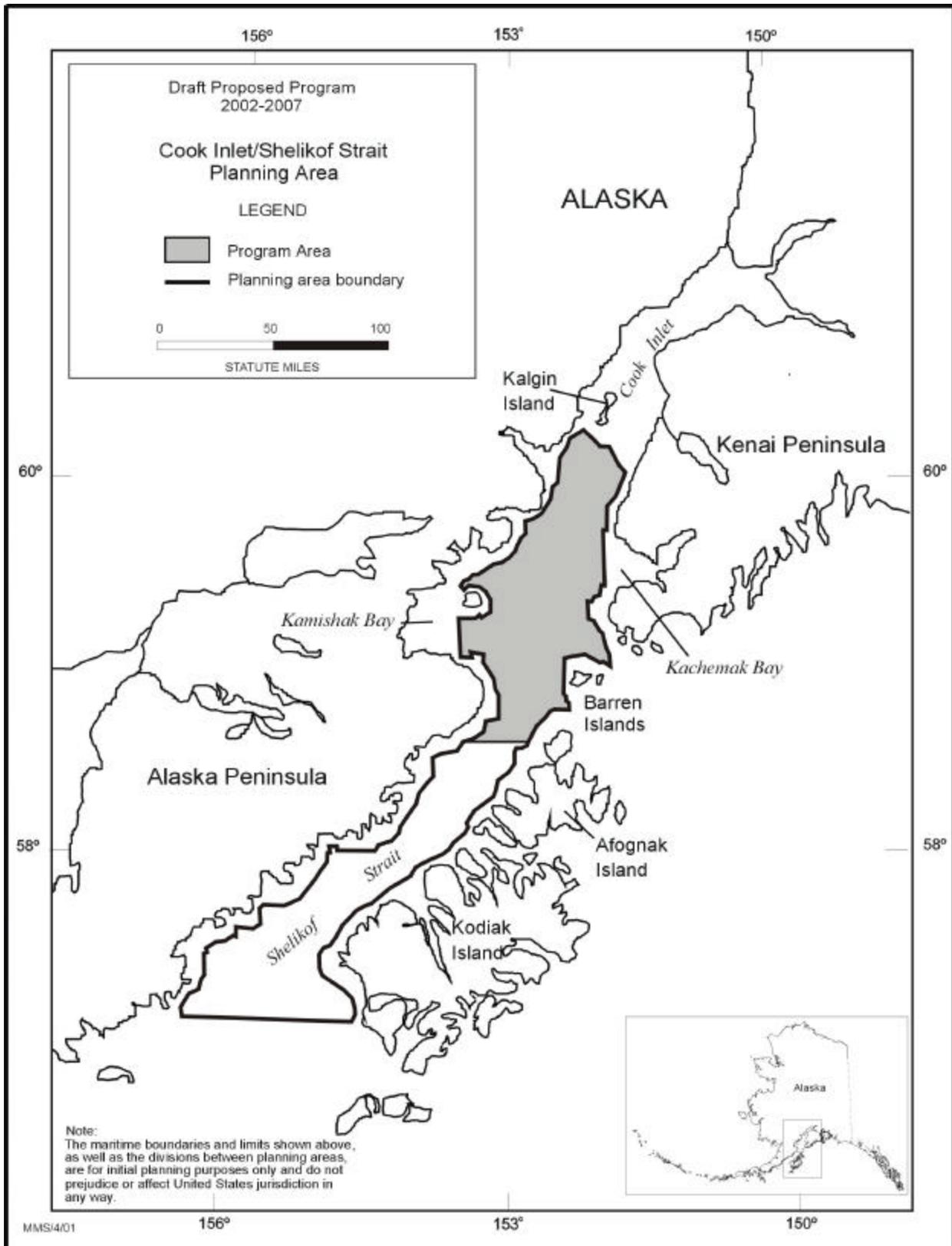
- (1) Two sales (2004, 06) in the program area depicted in Map 6
- (2) One sale in 2004 in the same area as Option 1
- (3) No sale
- (4) Other

### **Discussion**

**Option 1** would be most responsive to industry recommendations for access to this area. It also would be responsive to the Governor of Alaska's recommendation to make the Cook Inlet area a focal point of the new program, and it would be compatible with the state's annual areawide approach to leasing in state waters. Companies have been exploring and operating in Cook Inlet state waters for 40 years, and seasonal ice conditions have not affected those operations. Also, oil spill response capabilities are on call in Kenai. **Option 2** would slow the pace of leasing in this area by scheduling only one sale for the 5-year period. The proposed program area excludes the Shelikof Strait as recommended by the Governor of Alaska. However, it would add blocks to the southeast near Kachemak Bay that were not included in the 5-year program for 1997-2002.

### **ST. MATTHEW-HALL, NAVARIN BASIN, ALEUTIAN BASIN, BOWERS BASIN, ALEUTIAN ARC, ST. GEORGE BASIN, SHUMAGIN, KODIAK, AND GULF OF ALASKA PLANNING AREAS**

These nine areas (along with the withdrawn North Aleutian Basin Planning Area) compose the remainder of the Alaska OCS Region. The St. Matthew-Hall, Aleutian Basin, Bowers Basin, Aleutian Arc, Shumagin, and Kodiak areas have never been offered for lease. One sale was held in the Navarin Basin in 1984, one sale was held in the St. George Basin in 1983, and three sales were held in the Gulf of Alaska from 1976 to 1981. Exploration drilling in these three areas yielded no commercial discoveries. Only the Gulf of Alaska Planning Area was scheduled for leasing in the 5-year program for 1997-2002, and that sale was canceled in 1999 primarily due to



Map 6. Cook Inlet/Shelikof Strait Planning Area (Options 1 and 2)

low prices and low industry interest. None of these eight areas has development value in either the lower or higher price scenario, and none is estimated to have oil and gas resources amounting to more than .06 BBOE. Although the AOGA recommended including the Gulf of Alaska in the new program, no companies expressed interest in any of these areas. The State of Alaska's 5-year leasing program does not schedule lease sales in the state waters adjacent to any of these areas.

The absence of a gas transportation infrastructure in the vicinity of the Gulf of Alaska voids the economic viability of mapped gas prospects in that area. However, construction of liquid natural gas facilities in Valdez would improve the economics for gas in the Gulf of Alaska and would enhance its standing in the consideration of areas for OCS leasing.

The options below apply to all of these planning areas.

### **Options**

- (1) No sale
- (2) Other

### **Discussion**

No sale date and program area are proposed for the areas listed above because of their low resource potential and value and lack of industry interest.

## **GULF OF MEXICO REGION**

The Gulf of Mexico Region consists of three OCS planning areas—Western, Central, and Eastern. Most of the Eastern Gulf of Mexico Planning Area has been withdrawn from disposition by leasing until after June 30, 2012, leaving only the area identified for Sale 181 in the 5-year program for 1997-2002 available for leasing consideration in the new program. In addition to submitting comments concerning the size, timing, and location of leasing in the Gulf region, several companies offered recommendations and suggestions on royalty relief and other lease terms and conditions. Those comments are summarized in the appendix and will be considered by the MMS in its planning for individual lease sales in the region. Leasing options for the Gulf of Mexico OCS planning areas are presented below.

### **WESTERN GULF OF MEXICO PLANNING AREA**

**Background.** There have been 40 lease sales offering blocks in this planning area. Nearly 6,000 wells have been drilled, and some 680 million barrels of oil and 25.5 Tcf of gas have been produced through September 2000. The 5-year program for 1997-2002 proposed one sale per year in this area, and those sales have proceeded as scheduled. The most recent sale, which was held in August 2000, drew bids on 226 blocks and resulted in 219 blocks being leased. Leasing in this area has been subject to deepwater royalty relief as provided in the Deep Water Royalty Relief Act (P.L. 104-58) for sales held between 1995 and 2000, and future sales will be subject

to royalty relief provisions set forth in MMS regulations at 30 CFR 260. The State of Texas administers an oil and gas program that includes state waters adjacent to this planning area.

**Key Comparative Results.** The net benefits for this planning area are estimated at about \$6.7 billion in the lower price scenario and at \$27.8 billion in the higher price scenario, which place it second of the 18 areas analyzed. The area is in the higher range of environmental sensitivity. It is in the lower range of primary productivity and produces roughly 5 percent of the commercial fisheries landings for the Gulf of Mexico region. Eight companies expressed interest in this planning area, ranking it highest in industry interest along with the other Gulf of Mexico areas.

**Selected Comments.** The U.S. Department of Energy cited the Gulf of Mexico OCS as a pivotal source of natural gas to meet projected demand. The NOIA and eight companies endorsed annual areawide leasing in the Western and Central Gulf of Mexico Planning Areas.

### **Options**

- (1) Five sales (2002, 03, 04, 05, 06) in the area depicted in Map 7
- (2) Other

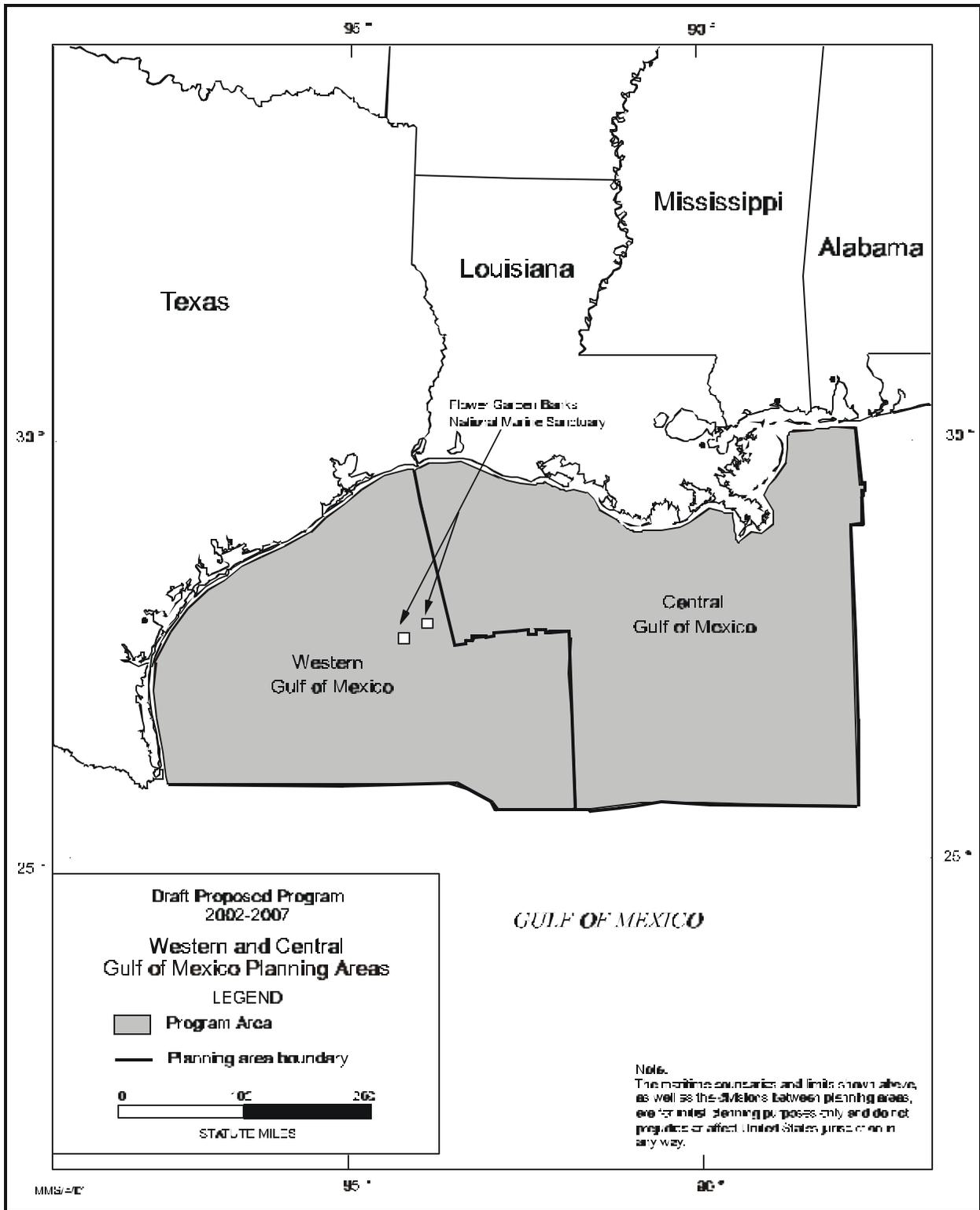
### **Discussion**

**Option 1** would continue the policy of making available on an annual areawide basis the Central and Western Gulf of Mexico Planning Areas, which are the two areas with the most resources and highest values. Two whole blocks and portions of other blocks within the boundary of the Flower Garden Banks National Marine Sanctuary are excluded from the Western Gulf Planning Area.

## **CENTRAL GULF OF MEXICO PLANNING AREA**

**Background.** There have been 59 lease sales offering blocks in this planning area. Over 33,600 wells have been drilled, and some 11 billion barrels of oil and 116 Tcf of gas have been produced through September 2000. The 5-year program for 1997-2002 proposed one sale per year in this area, and those sales have proceeded as scheduled. The most recent sale was held in March 2001. Leasing in this area has been subject to deepwater royalty relief as provided in the DWRRA for sales held between 1995 and 2000, and future sales will be subject to royalty relief provisions set forth in MMS regulations at 30 CFR 260. The States of Louisiana, Mississippi, and Alabama administer oil and gas programs that include state waters adjacent to this planning area.

**Key Comparative Results.** The net benefits for this planning area are estimated at about \$9.7 billion in the lower price scenario and at \$39.5 billion in the higher price scenario, which place it first of the 18 areas analyzed. The area is in the higher range of environmental sensitivity and primary productivity, and it produces roughly 91 percent of the commercial fisheries landings for the Gulf of Mexico region. Eight companies expressed interest in this planning area, ranking it highest in industry interest along with the other Gulf of Mexico areas.



Map 7. Western and Central Gulf of Mexico Planning Areas (Option 1)

**Selected Comments.** The Governor of Louisiana and the Louisiana Department of Natural Resources expressed concerns about wetlands loss associated with OCS activities and recommended that the state be compensated for such losses and other impacts. The comments of DOE, NOIA, and eight companies, as summarized for the Western Planning Area, also apply to this planning area.

### **Options**

- (1) Five sales (2003, 04, 05, 06, 07) in the area depicted in Map 7
- (2) Other

### **Discussion**

**Option 1** would continue the policy of making available on an annual areawide basis the Central and Western Gulf of Mexico Planning Areas, which are the two areas with the most resources and highest values.

## **EASTERN GULF OF MEXICO PLANNING AREA**

**Background.** Ten lease sales have been held in the Eastern Gulf of Mexico Planning Area. Forty-seven exploration wells have been drilled, and significant natural gas discoveries have been made in the area. Since 1977, the MMS has completed a major addition to its environmental studies in the Eastern Gulf Planning Area, involving 26 additional studies totaling some \$13 million and relating to such subjects as ecological effects, physical oceanography, and marine ecosystems. The portion of the area that has not been withdrawn from disposition by leasing is known as the *proposed Sale 181 area*, because the wording of congressional restrictions specifically refers to “lands located outside Sale 181, as identified in the 5-year program, 1997-2002.” The *proposed Sale 181 area* was configured during the preparation of the 5-year program for 1997-2002 in recognition of the State of Florida’s position at that time, which called for no OCS leasing within 100 miles of the state’s coast and in response to the State of Alabama’s recommendation that no leasing take place within 15 miles of its coast adjacent to the Eastern Gulf Planning Area. There are 39 active leases in the *proposed Sale 181 area*, and OCS Lease Sale 181 is scheduled to take place in December 2001. On July 2, 2001, the Secretary announced that the proposed Notice of Sale would reduce the area to be considered for leasing in Sale 181 to 256 blocks located in deeper waters adjacent to the Central Gulf Planning Area and directly off Alabama. The State of Alabama administers an oil and gas program that includes state waters adjacent to this planning area. The State of Florida does not permit oil and gas activity in its state waters.

**Key Comparative Results.** The net benefits for this program area are estimated at about \$838 million in the lower price scenario and at \$2.4 billion in the higher price scenario, which place it fourth of the 18 areas analyzed. The area is in the higher range of environmental sensitivity. It is in the mid-range of primary productivity and produces roughly 4.5 percent of the commercial fisheries landings for the Gulf of Mexico region. Eight companies expressed interest in this planning area, ranking it highest in industry interest along with the other Gulf of Mexico areas.

**Selected Comments.** The Florida Department of Environmental Protection recommended that no lease sales be held in the Eastern Gulf of Mexico Planning Area, citing environmental concerns and potential conflicts with other uses of the area, especially the existing military training and testing area. A letter signed by 24 members of the Florida congressional delegation urged the MMS to exclude all OCS lands impacting the Florida coastline. The Apalachee Regional Planning Council expressed opposition to leasing off the Florida Panhandle. The NRDC recommended that the entire Eastern Gulf of Mexico Planning Area be excluded from leasing, citing concerns about sensitive marine and coastal resources. Chevron recommended periodic leasing in this area and called for making more of the Eastern Gulf Planning Area available for leasing. The API and NOIA also called for expanding the area available for leasing. Devon, Shell, Marathon, and Anadarko recommended multiple sales in the *proposed Sale 181 area*.

### **Options**

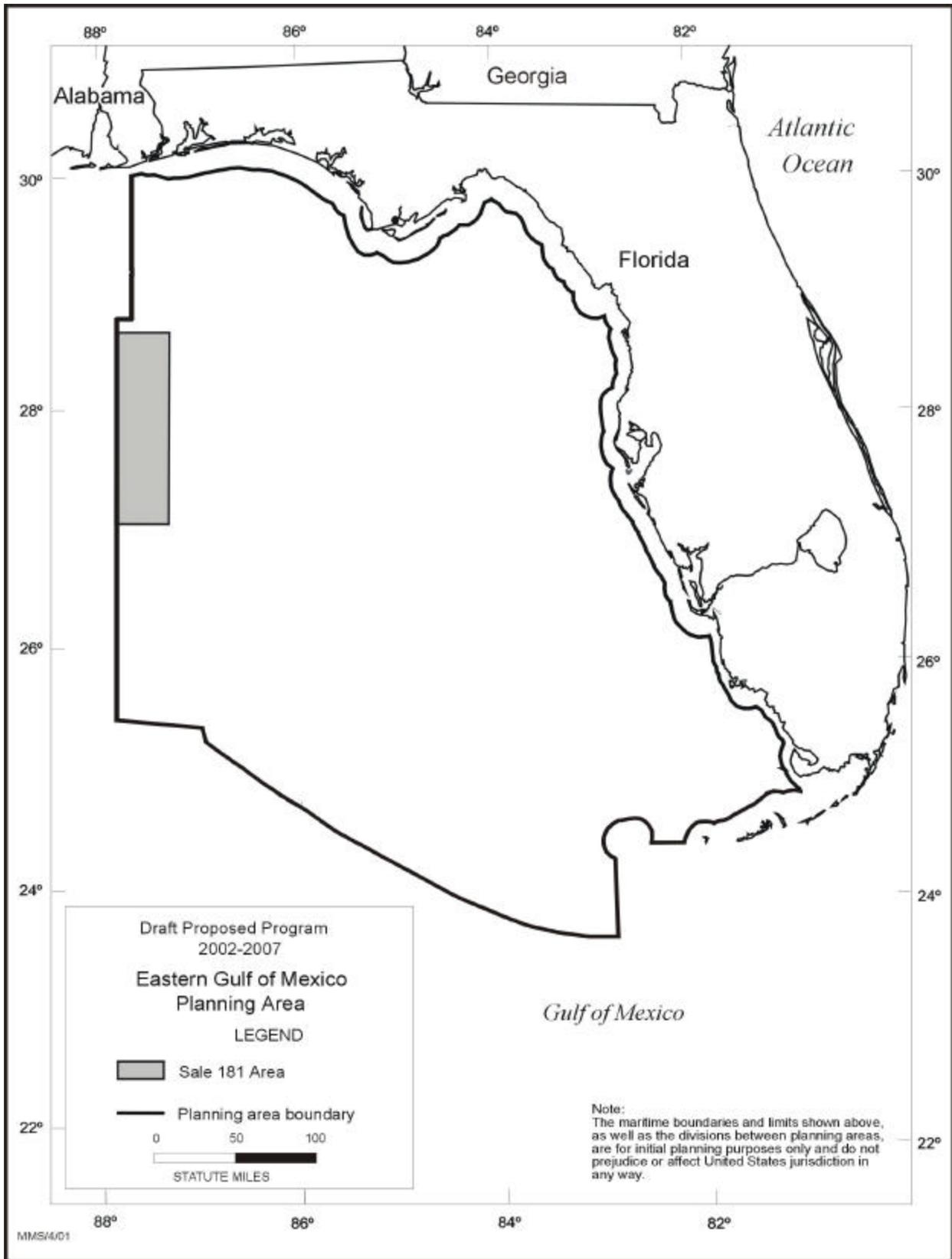
- (1) Three sales (2003, 05, 07) in the program area depicted in Map 8
- (2) Two sales (2003, 05) in the same area as Option 1
- (3) One sale (2003) in the same area as Option 1
- (4) No sale
- (5) Other

### **Discussion**

**Options 1, 2, and 3** propose to make available the 256 blocks selected for Eastern Gulf of Mexico Sale 181 in the July 2001 proposed Notice of Sale. All of those blocks are located within the portion of the Eastern Gulf of Mexico Planning Area that has not been withdrawn under section 12 of the OCS Lands Act. The proposed program area would exclude blocks east of 87° 30" W. longitude that have been removed from Sale 181 to address the concerns of the State of Florida and to reduce potential conflicts with military activities.

## **ATLANTIC REGION**

The Atlantic Region consists of four OCS planning areas—Straits of Florida, South Atlantic, Mid-Atlantic, and North Atlantic. All except the Straits of Florida have been withdrawn from disposition by leasing until after June 30, 2012. Leasing options for that area are presented below.



Map 8. Eastern Gulf of Mexico Planning Area (Options 1 -3)

## **STRAITS OF FLORIDA PLANNING AREA**

**Background.** One lease sale was held in 1959. Three exploration wells were drilled with no commercial hydrocarbon discoveries. There are no active leases, and no lease sales were scheduled in the 5-year program for 1997-2002. The last time this area was proposed for leasing was in the 5-year program for 1987-1992. The Governor of Florida filed suit against that program, objecting to the proposed Straits of Florida lease sale and other aspects relating to the Eastern Gulf of Mexico. In 1988 the Governor of Florida and the Secretary of the Interior reached an agreement under which the Straits of Florida sale was canceled and the state withdrew its petition against the 5-year program. The Straits of Florida Planning Area encompasses the Florida Keys National Marine Sanctuary, which is withdrawn from OCS leasing indefinitely under section 12.

**Key Comparative Results.** The net benefits for this planning area are estimated at about \$59 million in the lower price scenario and \$201 million in the higher price scenario, placing it seventh of the 18 areas analyzed. The area is in the higher range of environmental sensitivity. It is in the mid-range of primary productivity and produces only one-third the amount of commercial fishery tonnage produced by the most comparable planning area being considered for leasing (Eastern Gulf of Mexico). No companies expressed interest in leasing in this area.

**Selected Comments.** Reefkeeper International (Miami, Florida) recommended that the Straits of Florida be excluded from leasing in the new program.

### **Options**

- (1) No sale
- (2) Other

### **Discussion**

No sale date or program area is proposed because this area has been excluded from recent 5-year programs and there is no new information to support scheduling a sale in the 5-year program for 2002-2007.

## **B. Fair Market Value Options**

Part IV.D discusses measures taken to assure the receipt of fair market value for OCS leases.

### **Minimum Bid**

The options considered for the draft proposed program are to maintain minimum bid requirements at current levels or to set minimum bid levels individually for each planning area and sale as market conditions and program goals warrant. The current requirements entail bid levels of \$25 per acre for tracts in water depths of less than 800 meters in the Gulf of Mexico, \$37.50 per acre for tracts in water depths of 800 meters or greater in the Gulf of Mexico, and \$62

per hectare for all tracts on the Alaska OCS, with sale-by-sale reconsideration to respond to important changes in economic, fiscal, technological, and geologic (success or failure in specific sale areas) conditions.

Maintaining the current minimum bid levels, while allowing for sale-by-sale reconsideration provides consistency in that the 2002–2007 minimum bid levels, at least initially, will be similar to those used in previous sales. This continuity enables industry to plan for future sales. However, the ability to adjust the minimum bid level on a sale-by-sale basis allows for leasing parameter to be modified to meet changing conditions. If future price expectations rise to higher levels or if exploration in some portion of a planning area were exceptionally successful, minimum bid levels for new sales could be adjusted accordingly. Likewise, if conditions merit, the minimum bid levels could be lowered to encourage the acquisition of leases in areas that otherwise evidence low bidding interest. With the flexibility to react to changing conditions, the Government could ensure that the minimum bid levels used are appropriate to meet leasing objectives at the time of a sale.

Setting minimum bid levels individually for each planning area and sale as market conditions warrant would not tie the leasing program to past minimum bid levels. This approach could allow MMS to propose minimum bid levels that varied significantly across programs and among planning areas as well as between selected new subareas within a planning area. This approach may be viewed by industry as being a departure from policies that were used in the past in which changes in minimum bid level were infrequent and, with the exception of the reduction of the minimum bid level from \$150 per acre to \$25 per acre in the late-1980's, incremental. This approach would make it harder for industry to plan for future sales because there would be greater uncertainty about future minimum bid levels. However, from a public policy perspective, selecting minimum bid levels for each sale based on its own merits would allow the MMS more flexibility to address unique sale-specific situations, including those associated with fiscal initiatives.

Regardless of the approach selected, merely setting the minimum bid does not mean that any bids submitted in a sale will be accepted. Established bid adequacy criteria are applied at each sale to ensure that fair market value is received for all leases awarded.

### **Bid Adequacy**

The current postsale bid adequacy process was instituted in 1983 with implementation of the areawide leasing policy. The process consists of two phases for determining those bids that reflect the presence of competitive market forces, which assure receipt of fair market value and those that require further analysis using detailed tract evaluations. Phase 1 includes market-oriented evaluation criteria for accepting some tracts having competitively determined acceptable bids and identifying other tracts that will receive further evaluation in Phase 2. Phase 2 applies criteria designed to assess bid adequacy on a tract-specific basis and uses independent Government evaluations in addition to observed bid data to determine whether high bids are acceptable. Over the years, the bid adequacy procedures have been revised to improve their performance and ensure that the government will continue to receive fair market value for all leases awarded.

One alternative to the current procedure is use of a presale bid evaluation process. This approach would be more practical if there was a nomination process so that presale evaluations were based on the anticipated level of bidding interest. However, with areawide leasing, a presale process is difficult to implement because of the number of blocks available for lease and the inability to know exactly which blocks will receive bids in a sale.

The postsale evaluation process has important efficiencies because it allows the MMS to concentrate its limited evaluation resources and efforts only on tracts that receive bids. Unlike presale evaluation, it also permits more detailed mapping and analysis of the most recent data and information needed to make an informed acceptance/rejection decision, thus assuring receipt of fair market value.

These advantages alone appear to warrant retention of some form of the postsale evaluation process. As in the previous programs, modifications may be made to the OCS bid adequacy procedures to incorporate knowledge gained from their use in lease sales or in the event there is a change in the leasing process.

**Selected Comments.** ExxonMobil expressed support for the current minimum bid levels. BP (and affiliates) recommended that the MMS reengineer fair market value processes. The API urged the MMS to rely on market forces and information to determine fair market value.

## **Options**

### ***Minimum Bid***

- (1) Set minimum bid levels at current amounts, subject to sale-by-sale reconsideration
- (2) Set minimum bid levels individually for each planning area and sale as market conditions warrant

### ***Bid Adequacy Review***

- (1) Continue use of the current postsale two-phase bid adequacy process, subject to revision as appropriate
- (2) Develop an alternative approach

## **IV. DRAFT PROPOSED PROGRAM ANALYSES**

### **A. Analysis of Energy Needs**

#### **Introduction**

Section 18 requires the Secretary to formulate an OCS leasing program to “best meet national energy needs for the five-year period following its approval or reapproval” [18(a)]. In formulating the program the Secretary must consider “the location of such [OCS] regions with

respect to, and the relative needs of, regional and national energy markets” [18(a)(2)(C)]. The long lead times that are involved in OCS oil and gas leasing and permitting of exploration, development, and production activities actually dictate that the analysis of energy needs look at projections for a period longer than 5 years.

### Forecast National Energy Needs

Currently, the United States gets about 60 percent of all its energy needs from oil and natural gas. According to the Department of Energy’s Energy Information Administration (EIA), the nation will become even more dependent on oil and gas in the next two decades. As indicated in Table 1, which presents EIA projections from its *Annual Energy Outlook 2001 (December 2000)*, oil and gas is forecasted to account for 64.1 percent of the nation’s total energy consumption by 2010, and 67.8 percent of total U.S. consumption by 2020.

While the nation is moving towards ever greater reliance on oil and natural gas to meet its energy needs, it must also rely more heavily on federal lands to supply the needed oil and gas. Estimates of remaining U.S. technically recoverable oil and gas resources from the U.S. Geologic Survey (onshore and state offshore) and the MMS (federal offshore) indicate that the majority of the nation’s remaining resources are on federal lands. Sixty percent of the remaining 174.8 billion barrels of technically recoverable oil resources are on federal lands. Similarly, 52 percent of the remaining 1,430.6 Tcf of technically recoverable natural gas resources are on federal lands. Focusing on the Gulf of Mexico as the primary OCS region of expected leasing activity, EIA forecasts of domestic energy production to 2020 clearly indicate the need for continued and increased production of oil and gas from that region.

**Table 1**  
**U.S. Energy Consumption**  
**(quadrillion Btu)**

	<b>1999</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>
<b>Petroleum</b>	38.0 (39.5%)	41.4 (38.7%)	44.4 (38.9%)	47.5 (39.3%)	50.6 (39.8%)
<b>Natural Gas</b>	22.0 (22.9%)	25.9 (24.2%)	28.8 (25.2%)	32.4 (26.8%)	35.6 (28.0%)
<b>Other</b>	36.1 (37.6%)	39.7 (37.1%)	40.9 (35.8%)	40.9 (33.9%)	40.8 (32.1%)
<b>Total</b>	96.1	107.0	114.1	120.8	127.0

Source: *Annual Energy Outlook 2001* (reference case forecast)  
Numbers in parentheses are percentages of the total

Table 2 summarizes EIA’s forecast of U.S. crude oil production from 1999 to 2020. It shows projected Gulf of Mexico crude production increasing from 1.4 million barrels per day in 1999 to

2.0 million barrels per day by 2005 and then declining slightly through 2020. Even more importantly, however, it shows that domestic production outside of the Gulf will decline significantly through 2020. As a result, Gulf crude production is expected to account for one-third of total domestic crude production in the next 20 years. From a national energy and economic security standpoint, the Gulf's production takes on even greater importance as the U.S. tries to maintain domestic oil supplies as a hedge against rising imports of both crude oil and refined products—which are projected to increase from the current level of 51 percent to 64 percent of U.S. consumption by 2020. It should be noted that all numbers in Table 2, including those for 1999, are EIA *projections* (e.g., actual oil production from the Gulf of Mexico OCS in 1999 was 495 million bbl).

**Table 2**  
**U.S. Crude Oil Production**  
**(million barrels per day)**

	1999	2005	2010	2015	2020
<b>Gulf of Mexico</b>	1.4 (23.7%)	2.0 (35.1%)	1.9 (36.5%)	1.8 (35.3%)	1.7 (33.3%)
<b>Other</b>	4.5 (76.3%)	3.7 (64.9%)	3.3 (63.5%)	3.3 (64.7%)	3.4 (66.6%)
<b>Total</b>	5.9	5.7	5.2	5.1	5.1

Source: *Annual Energy Outlook 2001* (reference case forecast)  
Numbers in parentheses are percentages of the total

Table 3 summarizes EIA's forecast of U.S. natural gas production from 1999 to 2020. It shows projected Gulf gas production dropping from 6.4 Tcf per year in 1999 to 6.0 Tcf per year by 2005 and then increasing to 7.2 Tcf per year by 2020. It should be noted that all numbers in Table 3, including those for 1999, are EIA *projections* (e.g., actual gas production from the Gulf of Mexico OCS in 1999 was 5.05 Tcf). It is also important to note that these forecasts may be over projecting the amount of gas that will be produced from the lower 48 states onshore, which is given in the *Other* category in Table 3. This is due to the fact that the forecast does not consider that large volumes of natural gas resources in the lower 48 states onshore are actually not available for development due to federal and state restrictions that limit or prohibit access to those resources. To the extent that access restrictions will limit onshore production, the Gulf may be needed to produce even more than forecasted to help the nation meet its natural gas requirements. This eventuality is addressed in the EIA report entitled, *Accelerated Depletion: Assessing Its Impacts on Domestic Oil and Natural Gas Prices and Production*, which includes an examination of the effects of restricted access to resources.

**Table 3**  
**U.S. Natural Gas Production**  
**(Tcf per year)**

	1999	2005	2010	2015	2020
<b>Gulf of Mexico</b>	6.4 (35.0%)	6.0 (29.6%)	6.3 (27.9%)	6.6 (25.7%)	7.2 (25.3%)
<b>Other</b>	11.9 (65.0%)	14.3 (70.4%)	16.3 (72.1%)	19.1 (74.3%)	21.3 (74.7%)
<b>Total</b>	18.3	20.3	22.6	25.7	28.5

Source: *Annual Energy Outlook 2001* (reference case forecast)  
Numbers in parentheses are percentages of the total

The *Outlook 2001* forecast shows increasing domestic energy production, imports, and consumption over the next 20 years, and it shows a greater rate of increase and an even greater gap between domestic production and consumption than previous *Outlook* forecasts. The primary reason for the increase in this production-consumption gap is more optimistic assumptions about economic growth. The growth rate for the U.S. economy projected in *Outlook 2001*, with an average annual growth rate of 3 percent in gross domestic product, is higher than in previous forecasts. Higher long-run economic growth would result in increased energy consumption. World oil demand is projected to increase from 75.5 million barrels per day in 1999 to 117.4 million barrels per day in 2020 due to higher projected demand in the United States, the Middle East, the former Soviet Union, the Pacific Rim developing countries, and China.

Within the *Outlook 2001* forecast, there are assumptions about the mix of energy sources that make OCS production even more important to the nation than it is today and more important than it was expected to be in previous forecasts. Electricity generation fueled by natural gas and coal is projected to increase through 2020 to meet growing demand and to offset the projected retirement of existing nuclear units. The projections for generation from natural gas, coal, and nuclear power are higher than previous forecasts due to higher projected electricity demand and improved operating costs and performance of nuclear plants. The share of natural gas generation is projected to increase from 16 percent in 1999 to 36 percent in 2020, and the coal share is projected to decline from 51 to 44 percent, because electricity industry restructuring favors the less capital-intensive and more efficient natural gas generation technologies.

Petroleum demand is projected to grow from 19.5 million barrels per day in 1999 to 25.8 million in 2020—an average rate of 1.3 percent per year—led by growth in the transportation sector, which accounts for about 70 percent of U.S. petroleum consumption and is 97 percent reliant on liquid fuels. Advances in exploration and production technologies do not offset declining oil production in the forecast.

The overall U.S. demand for natural gas is projected to grow by 2.3 percent per year on average, from 21.4 trillion cubic feet in 1999 to 34.7 trillion cubic feet in 2020, primarily as a result of

rapid projected growth in demand for electricity generation (excluding cogenerators), which is expected to triple between 1999 and 2020.

Projected production is higher in the earlier years of the forecast when projected prices are higher, contributing to lower production later. Projected increases in natural gas plant liquids production and refinery gains generally offset the decline in crude oil production. Domestic natural gas production is projected to increase at an average annual rate of 2.1 percent, due to growing demand. Net imports of natural gas, primarily from Canada, are projected to increase from 3.4 trillion cubic feet in 1999 to 5.8 trillion cubic feet in 2020. Net imports of liquefied natural gas are expected to increase to 0.7 trillion cubic feet by 2020 as two facilities in the United States—Elba Island, Georgia, and Cove Point, Maryland—are expected to reopen in 2003.

Total energy consumption is projected to increase from 96.1 quadrillion Btu to 127.0 quadrillion Btu between 1999 and 2020, an average annual increase of 1.3 percent. Energy demand for transportation is projected to grow at an average annual rate of 1.8 percent to 38.5 quadrillion Btu in 2020. Electricity demand is projected to grow by 1.8 percent per year from 1999 through 2020.

In *Outlook 2001*, total coal consumption is projected to increase from 1,035 million tons in 1999 to 1,297 million tons in 2020, an average increase of 1.1 percent per year. Renewable fuel consumption, including ethanol for gasoline blending, is projected to grow at an average rate of 1.1 percent per year through 2020, primarily as a result of State mandates. In 2020, about 55 percent of renewables will be used for electricity generation and the rest for dispersed heating and cooling, industrial uses, and fuel blending.

## **Meeting Energy Needs**

### ***Contribution of OCS Oil and Gas***

The OCS program continues to play a very important role in meeting the Nation's energy needs. Natural gas from the OCS supplies 25 percent of domestic gas production. Offshore oil also accounts for about 25 percent of oil production. The share of petroleum demand met by net imports is projected to increase from 51 percent to 64 percent. Production of oil and gas from the OCS directly reduces the amount of oil that must be imported from abroad, much of it from politically unstable regions, thereby lessening the threat to the U.S. economy posed by supply disruptions and higher prices.

Over 70 percent of the hydrocarbons produced from the OCS are in the form of natural gas, the clean burning, environmentally preferred source of energy for electricity generation. As many coal-fired generating facilities have switched to burning gas, demand has risen significantly. This increase in demand, as well as growing residential demand, has raised concerns that the volumes of natural gas available from traditional sources—involving both domestic production and imports from Canada and Mexico—will have to increase dramatically to maintain adequate supplies in the future. The MMS report entitled, *Future Natural Gas Supply From the OCS: An Assessment of the Role of the OCS as Supplier of the Nation's Future Energy Needs* (April

2000), concluded that in 2020 Mexico will not be more than a minor supplier and Canada's ability to export at the rate projected by EIA will depend heavily on future gas discovery and development on its eastern seaboard.

Since 1994, oil production in the Gulf of Mexico has increased more than 50 percent. The OCS is the second largest supplier of crude oil for the U.S. market, surpassed only by imports from Saudi Arabia. From 1994 through 1998, deepwater production of both oil and gas from the Gulf almost tripled, and without this increase, declining domestic production in recent years would have been almost twice as severe. The trend of increasing deepwater production from the Gulf is attributable to the recent contribution of very large fields with high flow rates located in over 1,000 feet of water that have been discovered and developed using new technology. This trend is expected to continue, aided by incentives provided by the DWRRA of 1995, which was followed by record-setting levels of leasing activity in deep water.

Natural gas production from the Gulf of Mexico shelf (water depth less than 656 feet) declined by 13 percent from 1997 to 1999. This decline represents approximately 1.6 billion cubic feet of gas per day. The number of producing gas completions declined from 4,694 to 4,475 over the same period. Improved completion technologies, which have resulted in much shorter lives for the newer completions, mean that more completions need to be added each year to remain at a constant level, and a significant increase would be needed to return to 1997 levels.

#### ***Alternatives to the Contribution of OCS Oil and Gas***

The MMS uses its *Market Simulation Model* to estimate the amount and percentage of alternative sources of energy the economy would have to adopt if the 5-year program were not implemented and its proposed lease sales were not held in the future. For the present 5-year program, the MMS commissioned a new study of the parameters (elasticities) that form the basis of the *Market Simulation Model*. The percentage results from the new elasticity estimates are virtually identical to past results for oil. Oil lost from OCS production would be substituted by 88 percent greater imports, 5 percent conservation, 4 percent increased onshore production, and 3 percent switching to gas. However, the percentage results for gas differed significantly from previous estimates. The new results show that gas lost from OCS production would be substituted by 64 percent onshore production, 22 percent switching to oil, 9 percent conservation, and 5 percent imports. The same rates of substitution would apply to the 5-year program for 2002-2007.

Many alternative sources of energy probably will contribute to the U.S. energy future. However, no new anticipated energy technology is likely to make a significant contribution over the next 10 to 15 years. Even after that, the present sources of energy in our economy, especially natural gas and oil, are expected to be important contributors to our energy mix for the foreseeable future.

The federal or state governments might use taxes, subsidies, or specific measures (like requiring non-gasoline powered vehicles) to encourage or mandate a different mix of energy alternatives than the market would choose. Such government actions would most likely be directed at vehicle or electric generating plant fuels and fuel consumption. Any of these measures favoring

a particular energy alternative probably would have important environmental consequences, some of which might be negative.

### **Regional Energy Considerations**

Table 4 presents proportional petroleum and natural gas production and consumption by region (Census Division). It also shows the percentage of total U.S. energy consumption that each region's consumption represents.

The information in Table 4 indicates that the western part of the country, which includes Alaska, produces more hydrocarbons than it consumes, while the opposite is true for the eastern part. The West South Central Census Division (Arkansas, Louisiana, Oklahoma, and Texas) consumes more oil and gas as well as overall energy than any other region, but still produces significantly more than it consumes. Therefore, all regions depend on Alaska and the West South Central Census Division as sources of oil and gas in addition to imports.

Meeting regional needs for OCS oil and gas requires an efficient and dependable transportation system. Most oil produced from the OCS is transported by pipeline from the Gulf of Mexico to onshore refineries in that region and in the Midwest. Oil produced from the Pacific OCS moves onshore by pipeline and then by other pipelines to refineries in the San Francisco Bay area and in Texas. Oil that will be produced from the Beaufort Sea OCS off Alaska will be transported ashore by pipeline, carried to Valdez by the Trans-Alaska Pipeline System, and then tankered to refineries on the west coast.

Over 99 percent of the natural gas produced from the OCS comes from the Gulf of Mexico, and that gas is transported ashore by pipeline and then through a well developed pipeline infrastructure to the Midwest and Northeast. The small volume of gas produced from the Pacific OCS is transported ashore by pipeline and then to the San Francisco Bay area for processing. Alaska OCS gas is not likely to be produced commercially for the next several years and is usually reinjected but may be used as a local source of energy for drilling operations. Proposals for an onshore gas pipeline to link to existing west coast infrastructure greatly enhance the prospects of commercial OCS gas production off Alaska in the future.

Maintaining adequate pipeline infrastructure to transport increasing natural gas production from the OCS to the Midwest and the Northeast is a concern. An alternative to adding new pipeline capacity would be increased reliance on storage. A number of new facilities, including high-deliverability salt cavern storage, are being built both in the Northeast near the consuming markets and on the Gulf coast near offshore production areas. This is an economically attractive option for the short term, but it might not be sufficient to accommodate the increased volumes projected to be needed in certain regions over the longer term.

### **Report of the National Energy Policy Development Group (NEPDG)**

In January 2001 the President established the NEPDG and directed it to “develop a national energy policy designed to help the private sector, and, as necessary and appropriate, State and local governments, promote dependable, affordable, and environmentally sound production and

distribution of energy for the future.” The NEPDG issued its report on May 17, 2001. The report states that the nation is facing the most serious energy shortage since the oil embargoes of the 1970’s and offers many recommendations for meeting future energy needs. Among those recommendations is one calling for the President to direct the Secretary to continue OCS oil and gas leasing on a predictable schedule.

## **Conclusion**

The nation’s energy situation is similar to conditions that have existed during the preparation of previous 5-year programs. Domestic petroleum production is continuing to decline and imports are continuing to increase. The *Outlook 2001* and forecasts by the National Petroleum Council, and others project that domestic consumption over the next 5 years and beyond will increase substantially to the point that by 2015 the United States will need more oil and gas than it will be able to produce and import. While alternative sources of energy are expected to contribute, no new anticipated technology is likely to make a significant contribution in the next 15 years. Even after that, the current sources of energy—especially oil and natural gas—will continue to be important contributors to the nation’s energy mix. The nation’s current and projected energy situation will require continued leasing, exploration, and development of OCS lands in an environmentally sound manner.

**Table 4**  
**Proportional Petroleum and Natural Gas Production and Consumption by Region in 1999**

Region*	Production		Consumption		Total Energy Consumption
	Crude Oil	Natural Gas	Petroleum**	Natural Gas	
	% of U.S. total				
<b>New England</b>	0	0	4.7	3.1	3.6
<b>Middle Atlantic</b>	0.1	0.8	11.3	10.7	11.0
<b>East North Central</b>	1.4	1.7	13.9	17.7	17.0
<b>West North Central</b>	3.3	2.6	7.1	6.1	7.5
<b>South Atlantic</b>	0.3	1.1	16.0	8.4	15.6
<b>East South Central</b>	1.6	3.3	6.5	5.1	7.6
<b>West South Central</b>	32.4	57.9	21.2	29.7	18.7
<b>Mountain</b>	8.8	16.7	5.6	5.7	6.9
<b>Pacific***</b>	52.1	16.0	13.7	13.4	12.0

\* Each region constitutes one of the nine census divisions established by the U.S Census Bureau as follows:

New England – Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont

Middle Atlantic – New Jersey, New York, and Pennsylvania

East North Central – Illinois, Indiana, Michigan, Ohio, and Wisconsin

West North Central – Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota

South Atlantic – Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia

East South Central – Alabama, Kentucky, Mississippi, and Tennessee

West South Central – Arkansas, Louisiana, Oklahoma, and Texas

Mountain – Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming

Pacific – Alaska, California, Hawaii, Oregon, and Washington

\*\* This includes all petroleum-related products except natural gas.

\*\*\* Alaska and California produced almost all of the petroleum and natural gas for the Pacific Census Division (Alaska, California, Hawaii, Oregon, and Washington). Alaska produced over 73 percent of the Pacific Census Division's petroleum and over 38 percent of the Nation's petroleum. Alaska produced over 88 percent of the Pacific Census Division's natural gas and over 14 percent of the Nation's natural gas. However, Alaska consumed less than one percent of both the Nation's petroleum and natural gas. California produced over 13 percent of the Nation's petroleum products and about 2 percent of the Nation's natural gas. California consumed 10 percent of both the Nation's petroleum products and natural gas.

## **B. Analysis of Environmental Concerns**

### **Introduction**

The OCS Lands Act, as amended, includes provisions for considering environmental protection in managing the nation's offshore oil and gas resources. The law's amendments contain policies pointing to the importance of applying safeguards to help limit the risks of environmental damage and to protect the human, marine, and coastal environments. Section 18 of the Act mandates that decisions on managing the mineral resources of the OCS strike a proper balance between the potential for discovery and development of oil and gas resources and the potential for adverse environmental impacts. It is therefore important in developing a 5-year program to solicit comments relating to environmental concerns, to consider and analyze carefully the comments received, and to make use of that information in the development of the EIS prepared for the program.

### **Comments Relating Environmental Concerns**

The appendix is a summary of the comments the MMS has received in response to the December 2000 request for comments. A number of the comments expressed concerns related to the possible environmental effects of the OCS program. They repeated many issues identified during the preparation of previous 5-year programs and are very similar to the concerns raised and analyzed during preparation of the 5-year program for 1997-2002 and its accompanying EIS.

The primary concerns are identified and discussed below.

#### ***Risks of Accidental Oil Spills***

It has been many years since any substantial environmental impacts have been observed as a result of an oil spill caused by OCS production and transportation activities. Concerns continue to be expressed that OCS-related oil spills will result in unacceptable impacts to the marine and coastal environment. Although the location and timing of a serious oil spill cannot be known with any certainty, the EIS that will be prepared for the new 5-year program will analyze potential risks and impacts based on pertinent historical data. As in previous analyses, the EIS will show that the risk of an oil spill taking place varies from OCS region to region proportional to the amount of oil that is expected to be produced and transported. While analysts generally can calculate the risk of an oil spill occurring, it is not possible to predict the location of a spill or its path, and therefore it is not possible to predict which ecological, social, or economic resources would be affected and to what extent. Due to variables such as ocean currents (which could carry a spill out to sea and away from sensitive coastal resources) and the different sizes of spills that could occur, it is reasonable to assume that the actual risk of a particular resource being contacted and harmed will be smaller than the risk of a spill taking place.

#### ***Ecological Issues***

While most concerns about ecological effects are linked to the risk of oil spills, many commenters also expressed concerns related to the effects that routine OCS activities resulting

from the new 5-year program could have on elements of the natural marine and coastal environments. Such concerns include: effects on air quality resulting from the use of internal combustion engines offshore; the impacts to water quality caused by disturbance of ocean bottoms or the release of drill cuttings, chemicals, or wastes; the effects of noise, moving vessels, and structures on marine mammals, fish, and birds; and the impacts to OCS related coastal construction on beaches, wetlands, and rocky coastlines.

### ***Social and Economic Issues***

Concerns cited most often about OCS development are aimed at the economic and social effects that might occur in coastal communities. They include the possibility of adverse impacts to tourism from oil spilled on beaches or from the sight of platforms offshore; the effects on commercial fishing from damaged gear or the occupation of fishing grounds by platforms; and the impacts to local land use and public facilities from the construction of service bases and the influx of new workers into an area. In Alaska there are also concerns about the effects of offshore activity on subsistence hunting and the impact to Native culture from the introduction of new jobs and workers.

### **Environmental Analyses**

#### ***The OCS Record***

The 1985 report of the National Academy of Sciences (NAS) entitled *Oil in the Sea* indicated that only 2 percent of the oil in the world's ocean waters is the product of offshore oil and gas operations. Production and transportation from the U.S. OCS contributes less than one-tenth of 1 percent of the oil in global ocean waters. About 70 percent of the oil polluting the oceans comes from municipal and industrial wastes and from tanker operations. Another significant source of oil in ocean waters is natural seepage, and seeps in U.S. marine waters introduce about 100 times more oil than OCS oil and gas activities. The oil and gas industry's efforts—in conjunction with research, inspection, and enforcement programs implemented by the MMS—have contributed significantly to keeping the amount of oil introduced by OCS activities as low as possible. The NAS is updating its research on the presence of oil in the ocean and intends to issue a new report in the spring of 2002.

Since the notorious Santa Barbara Channel OCS oil spill in 1969, measures have been underway continuously to improve the technology of offshore operations, and the federal government has developed more stringent regulations governing OCS operations. Each OCS facility is subject to an inspection for compliance with environmental and safety regulations at least once a year, and the MMS also conducts frequent unscheduled inspections. The result of all of these efforts is an excellent record that has been documented in detail in previous 5-year program analyses and in several MMS publications. The record shows that from 1980 through 1998, OCS operators produced about 6.9 billion barrels of oil while spilling 0.001 percent of that total, or 1 barrel per every 93,000 produced.

### ***Findings of EISs Prepared for Previous 5-Year Programs***

The EIS for the 5-year OCS leasing program for 2002-2007 will not be completed until late 2001, so the program's potential impacts will not be completely assessed until that time. However, some general indications of the potential impacts of the program may be derived from the extensive analyses included in the EISs that have been prepared for past 5-year leasing programs, the most recent of which is the August 1996 final EIS that was prepared for the 5-year program that currently is in effect. Each of the previous EISs has examined environmental issues and concerns and presented relevant information on the geographical, geological, and ecological characteristics of many of the OCS's 26 planning areas. Most of the issues and concerns addressed in those past EISs are similar to those that likely will be analyzed in the EIS prepared for the 5-year program for 2002-2007.

A summary of the principal findings of EISs prepared for past 5-year programs is presented below. Impacts referred to as substantive are those that would entail significant changes in certain aspects of the local environment that could be expected to persist for a period of time. Impacts referred to as permanent are those that would entail a change in the local environment that would persist indefinitely even though such a change might not be profound.

**Water Quality.** No permanent degradation of water quality is expected. Sediment disturbance from the emplacement of anchors, platforms, and pipelines should result in localized, temporary increases in turbidity. Rapid dilution of discharged materials, controls on the kinds of material discharged, and the effects of currents can be expected to limit the extent of measurable water quality degradation to within a few hundred meters of the source. If accidental oil spills occur, they should cause short-term (days to weeks) but dramatic increases in the concentrations of hydrocarbons (up to 100 micrograms per liter) in the waters near the surface affected by the spill.

**Air Quality.** No substantive degradation of onshore air quality should take place. Emissions associated with routine offshore activities could cause small increases in onshore concentrations of some air pollutants, but these are not likely to cause any exceedances of national or state air quality standards. Accidental oil spills could cause rapid and possibly dramatic increases in volatile organic carbon concentrations near and downwind from a spill, but the duration of these concentrations should be short (generally a few days).

**Wildlife.** Although some marine mammals could be harmed during OCS activities, no permanent change in the population of any species should take place. In most cases, impacts to marine mammals from activities associated with the proposed program should not be lethal. Accidental oil spills are identified as the principal cause of potential impacts. Exposure to spilled oil may result in the loss of individual marine mammals. Sea otters, whales, seals, Steller sea lions, polar bears, and walrus may be killed if exposed to oil. Most of these losses are expected to occur in the Alaska Region, with a possibility of some taking place in the Pacific Region should a tanker transporting OCS oil become involved in an accident. Such losses are not expected to result in permanent changes in species distributions or population numbers. Routine activities such as the operating and servicing of platforms may cause temporary behavioral changes in some marine mammal species, but no losses of individuals or permanent changes in populations should occur.

No bird species should exhibit permanent changes in population or distribution because of routine activities. If accidental oil spills occur, seabirds, shorebirds, and waterfowl in the area of the spill may be oiled and killed. Bird species in the coastal and offshore areas of Alaska would potentially be most affected by oil spills because the populations of coastal and marine birds are highest there. The effects of spilled oil on a bird population are not expected to be permanent, and most populations should recover within a few breeding seasons after exposure. If Alaska bald eagle, peregrine falcon, and diving bird populations are exposed to spilled oil, recovery may take somewhat longer. If falcons nesting along Alaska's north coast are exposed to noise or other types of disturbance, nests could be abandoned, causing losses that might take more than 5 years to replace.

No substantive reductions in finfish or shellfish populations should result from either routine offshore activities or accidental oil spills. Impacts in the form of population displacement are expected to be of short duration. Losses of fish or shellfish from routine activities or accidental oil spills should be replaced within one or two generations. Any reduction in numbers is not expected to be discernable from natural variations in the species populations.

Marine turtles could be affected by routine operations or oil spills, but no identifiable changes in numbers or distribution are expected. Although onshore activities may result in the displacement of land animals, no substantive impact should occur.

**Shoreline and Seafloor Habitats.** In the Louisiana and east Texas areas of the Gulf of Mexico coastal plain, small amounts of wetlands may be lost to erosion caused by vessel traffic and canal maintenance. No long-term impacts from exposure of wetlands and estuaries to spilled oil are expected. However, exposure of wetland and estuarine habitats to spilled oil may affect associated invertebrate animal productivity and diversity, taking up to 10 years to recover fully.

If rocky intertidal communities are exposed to oil spills, reductions in plant and invertebrate animal abundance can be expected. The impacts are expected to be localized, and recovery to pre-exposure conditions could take up to 6 years. Recovery from damage to sandy beach communities caused by spilled oil is expected to require as little as 1 year. Accidental spills should have little effect on seafloor communities. Routine drilling and construction activities may cause small-scale, temporary damage to some communities.

**Coastal Communities.** Some changes in coastal land use patterns could occur in localized areas, but no extensive land use impacts are expected in the Gulf of Mexico Region or along the Pacific coast. Changes in land use patterns in Alaska will amount to less than one-half of one percent over a period of 20 years or more. Employment demands will be met by locally available labor forces in the Gulf of Mexico area. In Alaska, no sector of the local labor force is expected to change by more than 10 percent.

**Cultural and Subsistence Activities.** The cultural and subsistence activities of Native American communities in Alaska could be affected by both routine development activities and oil spills. Increasing urbanization that could occur from OCS development may result in changes to Native culture that may be permanent. Noise and disturbance associated with routine

OCS activities and oil spills could interfere with some subsistence hunting activities. An oil spill could render subsistence resources unavailable or undesirable for 1 or 2 years.

**Environmental Justice.** Alaska natives may be disproportionately affected by OCS activities because of their reliance on subsistence resources and harvest practices; however, these effects are expected to be mitigated substantially, although not eliminated, with the use of appropriate available mitigation measures. In other OCS areas, particularly the Gulf of Mexico Region, no disproportionate effects are expected on minority or low-income populations.

**Tourism and Recreation.** Routine development activities should have no substantive impacts to tourism or recreation. The presence of offshore platforms may enhance recreational fishing in some areas while they may be considered to detract from coastal aesthetics in others. Coastal construction related to OCS activity may interfere with tourism and recreation in a few locations, but the effect should be of short duration and have little long term economic effect. Recreational beaches and coastal areas exposed to oil spills would become unsuitable for use during the cleanup period, but the displacement of tourists is not likely to last more than one season, and those suffering economic losses may be compensated from the Oil Spill Liability Trust Fund.

**Fishing.** Offshore activities could cause impacts to local fishermen. The placement of platforms and pipelines may displace fishermen from small areas that are normally used for fishing. Loss or damage to fishing gear may also result from contact with anchors, rigs, platforms, or pipelines. Accidental oil spills may also result in the temporary closure of some fisheries and in a reduction of commercial and recreational fish resources. Losses of fisheries resources are not expected to be distinguishable from natural variations in abundance. Economic losses associated with accidental oil spills may be substantive, but impacts to fishing activities from accidental spills are not expected to persist for more than two seasons in any one region. Further, mechanisms exist for compensating fishermen who incur economic losses stemming from OCS activities or associated accidental spills.

**Archaeological Resources.** Some inadvertent disturbance to historic or prehistoric archaeological sites is expected in all OCS Regions in which activity takes place. These disturbances may result in the loss of some valuable archaeological data, but no loss of unique information is indicated.

### ***Recent NEPA Documents***

**Lease Sale EISs.** Since the EIS for the 5-year program for 1997-2002 was issued in 1996, the MMS has completed two multi-sale EISs analyzing the annual lease sales scheduled in the Central and Western Gulf of Mexico Planning Areas and one EIS analyzing Beaufort Sea Sale 170 off Alaska. An EIS analyzing Eastern Gulf Sale 181 has been completed. The lease sale EISs have validated the conclusions of the 5-year program EIS concerning types and levels of environmental impacts for those areas.

**Additional Relevant EISs and Environmental Assessments (EAs):** A final EIS analyzing the development and production plan for the Northstar Project in the Beaufort Sea was issued in 1999. Another EIS analyzing a development and production plan for a Beaufort Sea OCS lease

is in preparation for the Liberty Project, and a draft EIS was issued in January 2001. Additional relevant NEPA documents that have been prepared for Gulf of Mexico activity include an EA on deepwater operations and activities that was issued in June 2000 and a final EIS on the proposed use of floating production, storage, and offloading systems that was completed in February 2001. The findings of those documents also are consistent with the conclusions of the final EIS prepared for the 5-year program for 1997-2002.

### ***Cumulative Effects Reports***

In August 1997 the MMS issued a report concerning the cumulative effects of the OCS program for the period 1992 through 1994. That report, which is the most recent of a series prepared pursuant to section 20(e) of the OCS Lands Act since its enactment in 1978, identifies and discusses various effects from OCS activities, both positive and negative. Among the cumulative effects cited are wetlands loss and social and economic impacts in the Gulf of Mexico Region and cultural and subsistence effects in the Alaska Region. The report concludes, "In general, the current OCS regulatory regime prevents identifiable significant adverse cumulative effects from OCS-related activities on the human, marine, and coastal environments."

### ***Preparation of an EIS for the New 5-Year Program***

In addition to the analysis of environmental information required by section 18 of the OCS Lands Act, the MMS will prepare an EIS pursuant to NEPA that analyzes the environmental effects of the implementation of the proposed 5-Year program and reasonable alternatives. The EIS preparation process began with the Notice of Intent to Prepare an Environmental Impact Statement for the Proposed 5-Year Program that was published in the *Federal Register* on December 12, 2000 (65 FR 239). The Notice of Intent requested information from interested and affected parties that could be used to assist in developing the scope of the EIS.

### ***Additional Environmental Considerations***

In preparing the EIS and performing the environmental analyses required by section 18, the MMS has been able to draw on a substantial amount of information and analytic results obtained from its Environmental Studies Program, which has funded approximately \$700 million dollars in studies since 1973. The ESPIS provides brief descriptions of the studies. The MMS is working to make full study reports available through ESPIS, and many are already accessible. The ESPIS search and retrieval system may be reached on the internet at [www.mmspub.gov/espis](http://www.mmspub.gov/espis).

The analyses of social costs and environmental sensitivity and marine productivity presented in part IV.C also provide useful information concerning the potential effects of oil and gas leasing and related activities under the proposed 5-year program.

## **C. Comparative Analysis of OCS Planning Areas**

### **Introduction**

This section presents the comparative analysis of section 18 factors and considerations for the draft proposed program decision. This analysis addresses the section 18 criteria that lend themselves to quantification as well as those that do not.

Potential benefits of producing oil and gas from the nation's OCS include increasing national income, thereby reducing the country's international trade deficit; displacing shipments of oil imported in large tankers, thereby reducing associated oil spill risks; and providing a secure supply of the fuels used by the nation in production processes and in the distribution of virtually all other products. The potential costs cited above in the discussion of environmental concerns include the risk of damage to the marine, coastal, and human environments and the associated effects on the values of other resources and uses.

Factors that are quantified to facilitate comparison among OCS planning areas include net social benefits (calculated by estimating the net economic value of oil and gas resources, subtracting the associated environmental and social costs, and adding consumer surplus benefits) and environmental sensitivity and marine productivity. The net social benefit estimates have been revised to reflect changes in value resulting from implementation of the 5-year program for 1997-2002. The environmental sensitivity/marine productivity analysis has been redone for this document.

The factors that are addressed qualitatively include environmental, ecological, and socioeconomic characteristics that would be extremely difficult or impossible to quantify in a valid and meaningful way; expressions of interest by the oil and gas industry; and relevant laws, goals, and policies identified by affected states. The comments submitted by interested and affected parties and other considerations pursuant to the OCS Lands Act, NEPA, and applicable judicial opinions also are addressed in this analysis.

### **5-Year Program Resource Estimates and Description of New Methodology**

The current National OCS Assessment estimates the undiscovered, conventionally recoverable oil and natural gas resources located outside of known oil and gas fields on the U.S. OCS. The assessment considers recent geophysical, geological, technological, and economic information and uses a play analysis approach of resource appraisal called the Geologic Resource Assessment Program (GRASP).

This assessment began with the geologic analyses of the OCS areas using the extensive library of public and proprietary data available to MMS assessors. These include seismic data and interpretations, well log data and interpretations, petrophysical and geochemical data, geologic maps and cross-sections, and a vast array of additional data and information available to MMS through its federal regulatory responsibilities for OCS resource management. In cases where data were not available or sparse, geologically analogous areas were studied and the geologic

properties of these areas were used. These analyses resulted in the identification of specific geologic plays, which form the basis of this assessment.

For the purpose of the current assessment, the geologic plays are classified into three groups based on the level of exploration and discovery history: established plays; frontier plays; and conceptual plays.

The current estimates of undiscovered economically recoverable OCS oil and natural gas resources were developed using the following criteria:

- Flat prices (no real price changes).
- 12-percent discount rate (after tax rate-of-return).
- 12.5-percent or 16.7-percent royalty rate.
- 35-percent tax rate.
- 3-percent inflation rate.
- Cost of exploration, development, and transportation, and tariffs with their associated development scheduling scenarios for each OCS region and portions of regions when conditions warrant.
- Natural gas prices related to oil prices at 66 percent of the oil-energy equivalent.

More details on the methodology and results of resource estimation are available in the MMS report *Outer Continental Shelf Petroleum Assessment 2000*, which may be accessed on the internet at [www.mms.gov/revaldiv/RedNatAssessment.htm](http://www.mms.gov/revaldiv/RedNatAssessment.htm).

## **Net Social Benefits**

### ***Introduction***

The net social benefits analysis provides the Secretary with estimates of benefits and costs associated with oil and gas development for all the acreage that is expected to be unleased in each OCS planning area available for consideration (i.e., not withdrawn under section 12). The estimates of benefits and costs presented below have been obtained using the same methods as those used for the analysis for the 5-year program for 1997-2002. Resource numbers used to calculate those estimates have been updated to reflect changes that have occurred since that program was approved. All inputs to the net social benefit estimates, including the resource estimates, are based on identical price projections (i.e., scenarios assuming \$18 per bbl of oil/\$2.11 per million cubic feet of natural gas and \$30 per bbl/ \$3.52 per Mcf).

The experiences of the last few decades have shown that relying on even the most respected forecasts of oil and gas prices has risks. The lower price scenario involves levels that are perceived as low at this time but actually represent a relatively normal price level. The higher price scenario involves levels closer to the current averages but might represent the limit that could be maintained over a period of years based on historical observations. Due to recent changes in the relationship between oil and gas prices, as well as forecasts of a structural change in future demand for gas, the MMS is considering a new higher price gas scenario for analysis in the next stage of 5-year program preparation—the proposed program.

### ***Hydrocarbon Resources***

The estimates of hydrocarbon resources and net social benefits prepared for this 5-year program are based on undiscovered, economically recoverable oil and natural gas resources on unleased blocks unless otherwise specified. Economically recoverable resources are accumulations of hydrocarbons that have a positive net economic value under the economic conditions being considered. The location and extent of undiscovered oil and gas resources are unknown. Therefore, the MMS uses a method of analysis that yields estimates based on current knowledge of the geology of each area with consideration of existing engineering and economic constraints.

The economically recoverable oil and gas resources for the 17 full OCS planning areas and 1 partial planning area being considered in this program are displayed in Tables 5 and 6 as BBO, Tcf, and BBOE. They were developed by adjusting the estimates used in the 5-year program for 1997-2002 to reflect new leasing, termination of existing leases, and production likely to occur before July 2002.

### ***Net Economic Value***

The net economic value of oil and gas resources represents the net expected present worth of oil and gas market values less the costs of exploration, development, and production. Estimates of the net economic value of the resources available for leasing were made for each of the planning areas available for consideration. Under the assumptions used, seven planning areas have positive net economic values: Eastern, Central and Western Gulf of Mexico, Straits of Florida, Beaufort Sea, Chukchi Sea, and Cook Inlet. Tables 5 and 6 present net economic value estimates in the column headed "NEV."

### ***Environmental Costs***

Environmental costs are the costs associated with OCS oil and gas development that are not borne by the developing firms. The environmental costs associated with the development of the total available resources in the planning areas available for consideration were estimated, and are presented in Tables 5 and 6 under the heading "EnvCost." Table 5 presents the results in the lower price scenario, and Table 6 pertains to the higher price scenario. The tables only show values for the seven planning areas with positive net economic values. The MMS used a newly revised environmental cost model to estimate the cost shown here.

### ***Consumer Surplus Benefits***

Consumer surplus is the difference between what consumers pay for a good or service and what they would be willing to pay for that same good or service. Because the development of OCS oil and gas resources increases the world supply of these commodities, it reduces the world price for oil and gas even if it is only by a matter of pennies. This price reduction increases the consumer surplus enjoyed by those who use oil and natural gas products. Estimates of consumer surplus benefits associated with resources in the seven planning areas with positive net economic value are presented in Tables 5 and 6 under the heading "ConSur." The MMS calculated these estimates using a newly revised model.

## ***Net Social Benefits***

Net social benefits are the appropriate measure of the economic desirability of a government action. The MMS calculated the net social benefits of OCS developments by subtracting environmental costs from net economic value and adding consumer surplus benefits to the difference. Net social benefits are presented in Tables 5 and 6 under the heading “NetBen.”

## **Environmental Sensitivity and Marine Productivity**

### ***Introduction***

Section 18 (a)(2)(G) requires the Secretary of the Interior to consider the relative environmental sensitivity and marine productivity of the different areas of the OCS as one factor in determining the timing and location of potential natural gas and oil lease offerings. To satisfy the section 18 requirements, the MMS has ranked the areas of the OCS in terms of their relative environmental sensitivity and marine productivity. These rankings are not an assessment of the potential effects of OCS oil and gas leasing and production activities on the environment.

### ***Relative Environmental Sensitivity***

Spilled oil presents the primary environmental risk from offshore oil and gas activities. The natural resources of coastal ecosystems face the most significant environmental consequences from contact with spilled oil. The Environmental Sensitivity Index (ESI) developed by NOAA provides a systematic method for compiling data in standardized formats to map shoreline sensitivity to spilled oil. Coastal states and federal agencies such as the MMS assist in ESI development efforts and use ESI products. The ESI ranking approach has a strong scientific basis, and it has proven to be effective as a planning and response tool for over two decades.

In developing ESI, NOAA has accumulated a large database identifying the location of sensitive resources for most U.S. coastal areas. These data are critical to establishing protection priorities and identifying clean-up strategies in the event of a spill. Comparison of the standardized data over large areas can assist in identifying relative environmental sensitivity.

While a wide variety of factors contribute to environmental sensitivity, the predominant factor is the physical characteristics of a coastal area. The ESI provides standardized definitions of shoreline characteristics and uses them to assign shoreline sensitivity rankings. These standards are uniform across all areas. This enables the MMS to compare OCS areas and assess their relative environmental sensitivity in accordance with the OCS Lands Act.

**Table 5. Resources and Values in the Lower Price Scenario by Planning Area  
(Available as of July 2002)**

Planning Area	Resources			NEV \$ MM	EnvCost \$ MM	ConSur \$ MM	NetBen \$ MM
	Oil (BBO)	Gas (Tcf)	BBOE				
Central GOM	4.16	21.19	7.93	6,424	140	3,403	9,687
Western GOM	2.83	16.17	5.71	4,385	110	2,426	6,701
Beaufort Sea	1.78	2.93*	1.78	1,693	10	1,230	2,913
Eastern GOM (proposed Sale 181 area)	0.37	1.08	0.56	590	4	252	838
Chukchi Sea	0.97	NA	0.97	341	16	480	805
Cook Inlet	0.45	0.60	0.56	214	9	437	642
Straits of Florida	0.01	< 0.01	0.01	52	<1	7	59
Hope Basin	0.02	0.61*	0.02	**	**	**	**
Gulf of Alaska	0.01	NA	0.01	**	**	**	**
Norton Basin	Neg.	0.02	Neg.	**	**	**	**
Navarin Basin	Neg.	0.04	Neg.	**	**	**	**
St. George	Neg.	0.05	Neg.	**	**	**	**
Shumagin	Neg.	Neg.	Neg.	**	**	**	**
Kodiak	Neg.	Neg.	Neg.	**	**	**	**
Aleutian Arc	Neg.	Neg.	Neg.	**	**	**	**
Aleutian Basin	Neg.	Neg.	Neg.	**	**	**	**
Bowers Basin	Neg.	Neg.	Neg.	**	**	**	**
St. Matthew-Hall	Neg.	Neg.	Neg.	**	**	**	**

Lower price scenario: oil is \$18 per bbl and gas is \$2.11 per Mcf.

NA means not applicable due to lack of infrastructure and/or market. It should be noted that the National OCS Assessment 2000 reports undiscovered, conventionally recoverable resources of 60.11 Tcf for the Chukchi Sea Planning Area. However, this estimate does not take into account any economic feasibility. Because the resource is located in a formidable setting that lacks infrastructure and facilities, it is not considered economic under current technological, pricing, and economic scenarios. The MMS recognizes the vast potential of this resource but also believes that extensive, time consuming, and expensive exploration and development plans will be necessary to identify and produce commercial gas fields in this planning area. Conventionally recoverable resources for the Gulf of Alaska are estimated at 4.18 Tcf. Estimates of conventionally recoverable resources are different from the economically recoverable estimates presented in the table above and should not be compared to them.

\* Economic gas resources reported for the Beaufort Sea and Hope Basin Planning Areas assume delivery to a new (not existing currently) processing plant in each area. These gas volumes could be transported to markets outside Alaska in several forms at additional cost. The market destination and commodity type will dictate the final cost to consumers. Consequently, these figures do not include all costs to an existing market. Rather, they represent a sensitivity study showing quantities that could be available to a local processing plant at a given price. Due to uncertainty concerning the marketability of these gas resources, they were not considered in developing the NEVs, environmental costs, and consumer surplus benefits (nor will they be analyzed in the draft EIS). In addition, oil resources listed for the Hope Basin are condensate liquids derived from wet gas and will not be produced unless commercial gas development occurs in the area.

\*\* Indicates no development value, exploration only at this time.

**Table 6. Resources and Values in the Higher Price Scenario by Planning Area  
(Available as of July 2002)**

Planning Area	Resources			NEV	Env Cost	ConSur	Net Ben
	Oil (BBO)	Gas (Tcf)	BBOE	\$ MM	\$ MM	\$ MM	\$MM
Central GOM	7.14	31.95	12.83	30,727	213	9,007	39,521
Western GOM	4.55	23.65	8.75	21,935	165	6,062	27,832
Beaufort Sea	3.20	4.20*	3.20	8,574	31	3,107	11,650
Eastern GOM (proposed Sale 181 area)	0.54	1.83	0.86	1,816	7	624	2,433
Chukchi Sea	6.11	NA	6.11	13,779	51	5,032	18,760
Cook Inlet	0.62	1.00	0.80	1,025	16	1,019	2,028
Straits of Florida	0.02	0.01	0.02	184	<1	17	201
Hope Basin	0.04	1.51*	0.04	**	**	**	**
Gulf of Alaska	0.06	NA	0.06	**	**	**	**
Norton Basin	Neg.	0.07	0.01	**	**	**	**
Navarin Basin	Neg.	0.08	0.01	**	**	**	**
St. George	Neg.	0.10	0.02	**	**	**	**
Shumagin	Neg.	0.18	0.03	**	**	**	**
Kodiak	Neg.	0.27	0.05	**	**	**	**
Aleutian Arc	Neg.	Neg.	Neg.	**	**	**	**
Aleutian Basin	Neg.	Neg.	Neg.	**	**	**	**
Bowers Basin	Neg.	Neg.	Neg.	**	**	**	**
St. Matthew-Hall	Neg.	Neg.	Neg.	**	**	**	**

Higher price scenario : oil is \$30 per bbl and gas is \$3.52 per Mcf.

NA means not applicable due to lack of infrastructure and/or market. It should be noted that the National OCS Assessment 2000 reports undiscovered, conventionally recoverable resources of 60.11 Tcf for the Chukchi Sea Planning Area. However, this estimate does not take into account any economic feasibility. Because the resource is located in a formidable setting that lacks infrastructure and facilities, it is not considered economic under current technological, pricing, and economic scenarios. The MMS recognizes the vast potential of this resource but also believes that extensive, time consuming, and expensive exploration and development plans will be necessary to identify and produce commercial gas fields in this planning area. Conventionally recoverable resources for the Gulf of Alaska are estimated at 4.18 Tcf. Estimates of conventionally recoverable resources are different from the economically recoverable estimates presented in the table above and should not be compared to them.

\* Economic gas resources reported for the Beaufort Sea and Hope Basin planning areas assume delivery to a new (not existing currently) processing plant in each area. These gas volumes could be transported to markets outside Alaska in several forms at additional cost. The market destination and commodity type will dictate the final cost to consumers. Consequently, these figures do not include all costs to an existing market. Rather, they represent a sensitivity study showing quantities that could be available to a local processing plant at a given price. Due to uncertainty concerning the marketability of these gas resources, they were not considered in developing the NEVs, environmental costs, and consumer surplus benefits (nor will they be analyzed in the draft EIS). In addition, oil resources listed for the Hope Basin are condensate liquids derived from wet gas and will not be produced unless commercial gas development occurs in the area.

\*\* Indicates no development value, exploration only at this time.

Shorelines are ranked according to their sensitivity to oiling, the natural persistence of oil, and the ease of cleanup. The ESI assigns each U.S. shoreline segment a ranking between 1 and 10, where 1 represents shorelines least susceptible to damage by oiling, and 10 represents the locations most likely to be damaged. Examples of shorelines ranked as "1" include steep, exposed rocky cliffs and banks, where oil cannot penetrate into the rock and will quickly be washed off by the action of waves and tides. Shorelines ranked as "10" include protected, vegetated wetlands, such as mangrove swamps and saltwater marshes. Oil in these areas will remain for a long period of time, penetrate deeply into the substrate, and inflict damage to many kinds of plants and animals. More detailed information on the ESI ranking system can be obtained at <http://response.re.restoration.noaa.gov/esi/esiintro.html>.

The ESI data were obtained either directly from NOAA or through the MMS's Coastal and Offshore Resource Information System. The ESI line data sets were aggregated or disaggregated as appropriate to represent respective planning areas. Each ESI value was weighted by the length of its line segment. An average rating for the planning area was calculated. For some planning areas, incomplete data sets were used as the best available data to represent that planning area.

For areas where digital ESI data were unavailable, data in the Natural Resource Damage Assessment Model for Coastal and Marine Environments provided a general characterization of the coastline. This information was matched with corresponding ESI values to provide a sensitivity ranking for the planning area.

The average index values for the planning areas range from a high of 9.6 for the Central Gulf of Mexico with its extensive wetlands to a low of 3.0 for the rocky coastline of the Aleutian Arc. Table 7 reflects the ordinal ranking of the planning areas. Note that Aleutian Basin, Bowers Basin, and Navarin Basin were not ranked, because they have no shoreward boundary and thus no coastal environmental sensitivity scores.

### ***Marine Productivity***

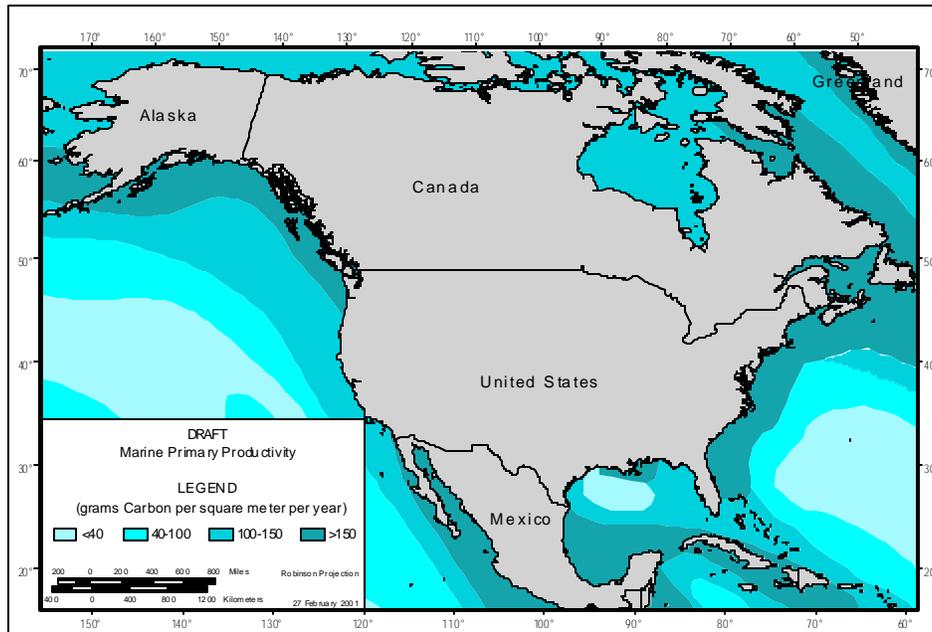
"Productivity" is a term used to indicate the amount of plant or animal biomass that is produced over a period of time. Primary production is the assimilation of organic carbon through photosynthesis. The most common example is simply a plant using energy from the sun to make organic matter. It is the basis for growth in most ecosystems.

The productivity of the marine aquatic community is its capacity to produce food for its component species. Primary production in the marine environment is conducted by aquatic plants such as Sargassum, submerged aquatic vegetation and phytoplankton. The rate at which this occurs is based largely on the plants' ability to photosynthesize. Inshore waters have a much higher primary productivity than most open-ocean waters because of the presence of increased nutrients and light penetration possible to the sediment-water interface allowing for the establishment of benthic vascular plants and seaweed in addition to phytoplankton (Figure 1). Farther from shore, fewer nutrients, primarily of terrestrial origin, are available for use by plant matter, and surface mixing due to increased wave action may push some of the phytoplankton down into the water column where they can no longer conduct photosynthesis.

**Table 7. Ranking of OCS Planning Areas  
by Relative Environmental Sensitivity**

Central Gulf of Mexico
Eastern Gulf of Mexico
St. Matthew-Hall
Western Gulf of Mexico
Straits of Florida
Beaufort Sea
Chukchi Sea
Hope Basin
Norton Basin
St. George Basin
Cook Inlet
Kodiak
Shumagin
Gulf of Alaska
Aleutian Arc
Aleutian Basin (not ranked)
Bowers Basin (not ranked)
Navarin Basin (not ranked)

**Figure 1**  
**Marine Primary Productivity**



Marine Primary Productivity. Source: Image georeferenced and reformatted from Garrison, T. 1999. *Oceanography*. Wadsworth Publishing Company, Belmont, C.A. Pp. 552.

Seasonal global primary production is at <http://marine.rutgers.edu/opp/Production/html>. Since phytoplankton is the basis for most food webs, it would be logical to find greater abundance of fish in these areas. It would be reasonable to expect that fish landings would be higher from ecosystems with higher levels of primary production, especially marine areas characterized by fronts, convergence, and upwelling events.

Marine productivity (secondary production) may be measured by the amount and availability of fish for harvest. The volume of fish commercially landed during 1999 is a useful indicator of marine productivity. The NMFS assessed the status of the nation's marine fishery resources in *Our Living Oceans 1999*. This report addressed 283 fishery stocks, 203 of which are under federal jurisdiction. The NMFS regulates fishery stocks in the 3-200 nautical mile (10-200 mile off Texas and the Gulf coast of Florida) U.S. Exclusive Economic Zone (EEZ). Within the 0-3 mile territorial sea, the coastal states and multi-state fisheries commissions have management jurisdiction over the fishery stocks.

While there are thousands of marine fish species, fewer than 500 species are regularly caught and processed. Between 1992-1994 for the U.S., 12 percent of 275 stock groups were underused, 34 percent were fully used, 23 percent were overused, and 31 percent were undetermined. The

U.S. catch is dominated by a small number of species, with almost 50 percent of the catch (by weight) composed of walleye pollock (*Theragra chalcogramma*) from Alaska waters and menhaden (*Brevoortia tyrannus*) from the Gulf of Mexico and the Atlantic Ocean.

Commercial landings were approximately 2 million tons per year from 1935 until 1977, when the United States extended its EEZ over fisheries to 200 miles from the coast. Since 1977, landings have more than doubled to 4.47 million tons in 1997. Recreational anglers in recent years have caught about 360 million fish.

Fish landing data by both recreational and commercial fisheries are collected and analyzed on an annual basis by the NMFS. The Fisheries Statistics and Economics Division of the NMFS has automated data summarizing the U.S. commercial fisheries landings. In addition to metric tons by state, data are also available by major port where fish were landed, species, finfish and shellfish groups, fishing gears and price per pound. Internet sources for such data and for the commercial fisheries data presented in Table 8 are [http://www.st.gov/webplcomm/plsql/webst1.MF ANNUAL LANDINGS.RESULTS](http://www.st.gov/webplcomm/plsql/webst1.MF%20ANNUAL%20LANDINGS.RESULTS) and [http://www.st.nmfs.gov/webplcomm/plsql/webst1.MF LPORT YEAR.RESULTS](http://www.st.nmfs.gov/webplcomm/plsql/webst1.MF%20LPORT%20YEAR.RESULTS).

### ***1999 Commercial Fisheries Data***

The MMS obtained 1999 commercial landings data and average coastal and OCS primary production data for each region. Table 8 presents this data by region, coastal and OCS primary production and total commercial fisheries landings in metric tons. Fish production numbers in italics indicate commercial landings data for major ports within the planning area. Numbers in bold type are fish production totals for the region. Some states are split between MMS planning areas, so one portion of a state may be in one planning area and the rest of the state included in another. Most of the NMFS commercial fisheries landing data are identified by state. In cases where the states are divided by two planning areas, a decision was made to lump the entire states' commercial fish catch into one of the planning areas. Split states were handled as follows: the entire east coast of Florida was included in the Straits of Florida Planning Area (so marine production figures may be slightly inflated), and Alabama was included in the Central Gulf of Mexico Planning Area.

The data indicate that the Alaska Region has high coastal primary production in the western area and the Gulf of Alaska and medium productivity in the northern area including the Beaufort, Chukchi and Bering Sea Planning Areas. Throughout the Alaska OCS, primary production is in the medium range. Due to a moratorium on oil and gas exploration in the North Aleutian Basin fish production (over 1,302,967 MT during 1999) was not included in the analysis. The combination of area and related fish tonnage excluded from this analysis moved Alaska from the position of highest to second highest number of fish landings (734,885.1 MT) with much of the remainder of the fish being landed in the southwestern and Gulf of Alaska ports. Also, some of the planning areas in Alaska have been combined in Table 8 because there were no commercial landings attributed to cities within an area or there were three or fewer fishermen fishing in the planning area, so the data are kept confidential by NMFS. The State of Alaska website that lists

**Table 8. 1999 Commercial Fisheries Data**

Planning Area	Primary Productivity (Coastal) gC/m <sup>2</sup> /yr	Primary Productivity (OCS) gC/m <sup>2</sup> /yr	Commercial Fish Landings (MT)
<b>Alaska Region</b>			<b>734,885.1</b>
<b>Beaufort/Chukchi/Bering Sea/Aleutian Islands/Hope Basin/Norton Basin/Navarin Basin</b>	100-150	100-150	No cities with commercial harvest in 1999 or less than 3 people fishing so tonnage not revealed
<b>St. Matthew-Hall/Aleutian Basin/ Bowers Basin</b>	>150	100-150	No cities with commercial harvest in 1999 or less than 3 people fishing so tonnage not revealed
<b>Aleutian Arc</b>	>150	100-150	307,674.86
<b>St. George Basin</b>	>150	100-150	
<b>Cook Inlet/Shelikof Strait</b>	>150	100-150	20,048.99
<b>Kodiak</b>	>150	100-150	150,412.77
<b>Gulf of Alaska</b>	>150	100-150	200,671.32
<b>Gulf of Mexico Region</b>			<b>882,186.70</b>
<b>Western GOM</b>	40-100	40-100	40,298.6
<b>Central GOM</b>	>150	40-100	801,932.30
<b>Eastern GOM</b>	100-150	40-100	39,955.8
<b>Straits of Florida</b>	100-150	40-100	<b>13,344.10</b>

selected cities having no commercial fisheries landings attributed to them during 1999 is <http://www.cfec.state.ak.us/cenge/1999CNNO.HTM>.

Data from the Straits of Florida indicate that primary productivity is in the medium range off the east coast of Florida. Marine productivity in this Atlantic OCS Region planning area is the lowest of the three regions considered, with 13,344.19 MT of fish landed during 1999.

The Gulf of Mexico Region has a wide range of rates of coastal primary production. The nutrient rich Mississippi River feeds the high levels of production in the Central Planning Area.

The Eastern Planning Area has a medium range of coastal primary production and the Western Planning Area has low coastal primary production. The outer continental shelf in the entire Gulf of Mexico region exhibits low primary productivity. Marine productivity is the highest of the three regions with 882,186.76 MT landed in 1999.

A comparison of regions, by metric tons (MT) of fish landed to the approximate area (km<sup>2</sup>) was also analyzed (Table 9). This can provide a more accurate evaluation of true marine productivity over a geographical area.

The Alaska region (comprising 15 planning areas) has the second highest tonnage of fish landed during 1999 and the largest physical area (1,243.745 km<sup>2</sup>) (excludes the North Aleutian Basin physical area) of the three regions. This is equivalent to 0.59 MT/area or 9.28 percent of the regional percentage of MT/ km<sup>2</sup>.

The Gulf of Mexico Region had the highest commercial fish production but five orders of magnitude smaller physical area compared to Alaska. This is equivalent to 4.69 MT/area or 73.74 percent of the regional percentage of MT/ km<sup>2</sup>.

The Straits of Florida had the lowest commercial fish production and the smallest physical area. This is equivalent to 1.08 MT/area or 17 percent of the regional percentage of MT/ km<sup>2</sup>.

**Conclusion**

The Alaska Region currently produces the highest tonnage of commercially landed fish, but with the exclusion of the North Aleutian Basin—where over half of the Alaska fish are landed the remaining metric tonnage (734,885.1 MT)—the Alaska Region places second in commercial fisheries production. Thriving commercial fisheries exist in the Gulf of Alaska for the generally healthy stocks of Pacific salmon, groundfish, Pacific halibut, shellfish, and herring. The Alaska Region has the largest physical area, but waters off northern Alaska are iced over most of the year and cannot be fished. This supports NMFS data that indicate no significant commercial harvest in the northern part of Alaska. Heavy ice cover also affects primary production. Reduced penetration of sunlight results in lower primary productivity numbers for northern coastal Alaska as compared to its western coast.

**Table 9. Comparison of Metric Tons of Commercial Fish Landed Per Unit Area.**

Regions	Metric Tons	Approximate Area (km)(km)	Mt/Area	Regional Percentage of US MT/ km <sup>2</sup>
Alaska	734,885.1	1,243,745	0.59	9.28
Gulf of Mexico	882,186.70	187,994	4.69	73.74
Straits of Florida	13,344.1	12,380	1.08	17

The Straits of Florida currently produces the lowest tonnage of commercially landed fish but also covers a much smaller geographic area (12,380 km<sup>2</sup>) than the other areas discussed. Commercial fisheries targeted in this area include coastal and pelagic sharks, tunas and billfish, as well as groundfish including croaker and flounder species.

The Gulf of Mexico Region produces the second highest tonnage of commercially landed fish. Commercial fisheries production in the Gulf of Mexico includes coastal and pelagic sharks, tunas and billfish, as well as economically important groundfish such as croaker, red snapper, and menhaden used in the commercial fertilizer industry. This region is known for vast expanses of coastal wetlands that act as nursery grounds for many recreational and commercial fish species. Away from the coastal areas, the Gulf of Mexico consists predominantly of mud bottom with very little natural substrate for fish habitat. For many years commercial and charter boat captains have created their own artificial reefs to provide fish habitat and increase fish populations. Many fishermen also target offshore oil and gas rigs, which provide substrate for sedentary species such as barnacles and oysters that attract higher trophic levels within the marine food web. Even though offshore primary production is fairly low in the Gulf of Mexico, these artificial structures may be a useful supplement to the limited natural habitat for adult fish species and sessile organisms.

### **Industry Interest**

The MMS received comments from twelve companies and three trade associations in response to the December 12, 2000, *Federal Register* Notice. Table 10 shows the interest expressed by the commenting companies. Eight stated that they were most interested in the Central, Western, and Eastern Gulf of Mexico Planning Areas, seven indicated interest in the Beaufort Sea Planning Area, and three expressed interest in the Cook Inlet/Shelikof Strait Planning Area. The other areas available for leasing in the 5-year program for 2002-2007 (i.e., those not withdrawn under section 12 of the OCS Lands Act) received no indications of interest from the commenting companies. Several companies and two industry associations commented on considering withdrawn areas for leasing. Those comments are included in the summary of all industry comments presented in the appendix.

### **Equitable Sharing of Developmental Benefits and Environmental Risks**

#### ***Introduction***

Section 18(a)(2)(B) of the OCS Lands Act requires that the Secretary base the timing and location of OCS exploration, production, and development on a consideration of, among other things, “an equitable sharing of developmental benefits and environmental risks among the various regions.” Because developmental benefits and many environmental risks often accrue outside the OCS regions, which are portions of land lying under the ocean, analysis of this factor usually goes beyond the strict requirements of the OCS Lands Act and considers the sharing of benefits and risks to people within onshore areas near the OCS.

Section 18 does not require that the leasing program achieve an equitable sharing of developmental benefits and environmental risks, nor have the courts set a specific standard of equitable sharing that the Secretary is to achieve. As the court recognized in *California I* and *California II*, the degree to which a proposed 5-year schedule of lease sales might achieve an equitable sharing of benefits and risks must be considered in light of a number of other factors, many of which are not under the control of the Department of the Interior and some of which greatly affect the options available.

**Table 10. Industry Interest**

<b>Planning Area</b>	<b>Number of Companies Expressing Interest*</b>
Central Gulf of Mexico	8
Western Gulf of Mexico	8
Eastern Gulf of Mexico	8
Beaufort Sea	7
Cook Inlet/Shelikof Strait	3
Gulf of Alaska	0
Chukchi Sea	0
Straits of Florida	0
Norton Basin	0
Hope Basin	0
St. George Basin	0
St. Matthew-Hall	0
Navarin Basin	0
Aleutian Basin	0
Bowers Basin	0
Aleutian Arc	0
Schumagin	0
Kodiak	0

\*Includes companies that ranked or indicated interest in one or more specific planning areas. Does not include expressions of interest submitted by industry associations and does not include expressions of interest in areas subject to the prevailing section 12 withdrawal (see appendix).

### ***Benefits and Risks***

Some benefits and risks of OCS leasing are shared widely while others are concentrated in regions adjacent to areas of OCS oil and gas activity. The benefits that accrue primarily to producing regions and nearby onshore areas are derived primarily from reduced risk of accidents involving tankers carrying imported oil and from expenditures on the factors of production (i.e., labor, land, materials, and equipment). Benefits flowing from federal government revenues (e.g., royalties) obtained through OCS-related activities tend to be widely distributed among the geographic regions of the United States, including those near OCS oil and gas exploration and production. Financial rewards for profitable operations in the form of stock dividends and increased stock values also tend to be widely distributed, as owners live throughout the country. Also, the benefits of an improved balance of trade are shared nationally. The immediate environmental risks of OCS oil and gas activities are borne primarily by producing regions and nearby onshore areas, while some of the financial consequences of those risks (e.g., compensation by responsible parties for natural resource damage and payments into funds established to provide compensation for losses not attributable to specific parties) are shared by companies and individuals throughout the nation.

The nature of developmental benefits and environmental risks associated with the OCS oil and gas program, as summarized above, has been well documented in previous 5-year program analyses. Those analyses went on to conclude that the 5-year program has a certain innate equity in that the geographic areas bearing the greatest risks also receive a higher share of the benefits but that certain financial aspects of both benefits and risks are shared somewhat widely.

The previous equitable sharing analyses also have noted that there are actions that may be taken independent of the 5-year program to influence the equitable sharing of developmental benefits, environmental risks, or both. Two such influential developments that have occurred since the approval of the 5-year program for 1997-2002 are the long-term executive withdrawal of certain areas of the OCS from disposition by leasing and the enactment of an amendment to the OCS Lands Act providing for distribution of additional federal revenues as impact assistance to states and localities affected by OCS activity. As mentioned above, a presidential directive issued in 1998 withdrew the OCS areas off the east and west coasts, most of the Eastern Gulf of Mexico Planning Area, and the North Aleutian Planning Area off Alaska from leasing until after June 30, 2012. In December 2000, the Congress enacted a coastal impact assistance program to be funded at \$150 million per year, subject to annual appropriations legislation.

### ***Conclusion***

The findings and conclusions of previous equitable sharing analyses still are valid. Since the distribution of benefits associated with factors of production is linked significantly to the location of OCS oil and gas support industries—which exist primarily along the Gulf of Mexico, Southern California, and Alaska coasts—the Secretary’s decision on an OCS leasing schedule for the period 2002-2007 would not be expected to alter substantially the distribution of benefits and risks achieved under previous 5-year programs. As in the two previous programs (1992-1997 and 1997-2002), the exception among the three coastal areas mentioned above is Southern California, whose exclusion precludes it from sharing any direct benefits or risks resulting from the new program. The federal revenues that traditionally have accrued to adjacent onshore areas as a result of OCS oil and gas activities will be augmented by the newly enacted impact assistance program (as long as necessary funds are appropriated) and the additional revenues will be used to mitigate associated impacts. Also, measures such as the implementation of new lease stipulations and operating regulations remain available to reduce the risks borne by the affected areas and foster more equitable sharing, as appropriate.

Due to the long-term executive withdrawal, the availability of OCS planning areas for leasing consideration in the next 5-year program is severely limited. Under these circumstances, the best attempt at achieving an equitable sharing of benefits and risks would be to continue to focus on the Central and Western Gulf of Mexico, while also including sales in the available portion of the Eastern Gulf of Mexico as well as in promising areas of the Alaska OCS—especially the Beaufort Sea Planning Area—where the first production from a federal OCS discovery is expected to begin in 2002.

## **Balancing Considerations**

### ***Introduction***

Section 18(a)(3) of the OCS Lands Act requires the Secretary to “select the timing and location of leasing, to the maximum extent practicable, so as to obtain a proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone.” Striking this balance based on a consideration of the principles and factors enumerated in section 18(a) is essentially a matter of judgment for which no ready formula exists. Section 18 requires the consideration of a broad range of principles and factors rather than imposing an inflexible formula for decisionmaking. Thus, previous 5-year programs have scheduled as many as 37 lease sales in 22 planning areas (1987 program) and as few as 16 sales in 8 planning areas (1997 program).

Some of the factors that section 18 specifies for consideration are embodied in the benefit-cost analysis (i.e., resource potential and certain environmental values). Others are not as readily quantifiable and are therefore described qualitatively. For example, environmental considerations such as aesthetics or concerns for certain species are extremely difficult to translate into accurate economic estimates. In order to provide the Secretary full and appropriate information for the draft proposed program decision, this decision document is supplemented by relevant NEPA documents and other analyses that present information relating to such environmental factors and other unquantified considerations. This supplemental information, which is identified in Part II.A , is incorporated by reference.

### ***Judicial Guidance***

The U.S. Court of Appeals for the D.C Circuit has elaborated in great detail on the statutory criteria for the balancing decision required by section 18(a)(3). Pertinent excerpts from the Court’s opinions on litigation concerning previous 5-year programs are presented below.

The Court has stated the following concerning the weight to be accorded the three elements of section 18(a)(3):

That the Act has an objective—the expeditious development of OCS resources—persuades us to reject petitioners’ view that the three elements in section 18(a)(3) are “equally important” and that no factor is “inherently more important than another.” The environmental and coastal zone considerations are undoubtedly important, but the Act does not require they receive a weight equal to that of potential oil and gas discovery. A balancing of factors is not the same as treating all factors equally. The obligation instead is to look at all factors and then balance the results. The Act does not mandate any particular balance, but vests the Secretary with discretion to weigh the elements so as to “best meet national energy needs.” The weight of these elements may well shift with changes in technology, in environment, and in the Nation’s energy needs, meaning that the proper balance for 1980-1985 may differ from the proper balance for some subsequent five-year period. (*California I*, 668 F.2d, p. 1317)

The following three statements of the Court pertain to the analysis of the section 18 factors and the Secretary's discretion in weighing the results of that analysis:

- (1) The Act recognized the difficult burden the Secretary must shoulder by stating that the selection of timing and location of leasing must strike the proper balance "to the maximum extent practicable." The Secretary must evaluate oil and gas potential, which can be quantified in monetary terms, in conjunction with environmental and social costs, which do not always lend themselves to direct measurement. Because of this, they must be considered in qualitative as well as quantitative terms.

Although the secretarial discretion we have described is broad, as a result of both the general wording of the statute and the nature of the task the Secretary is asked to perform, the Secretary's discretion is not unreviewable. The policies and purposes of the Act provide standards by which we may determine whether the Secretary's decision was arbitrary, irrational, or contrary to the requirements of the Act. To do so, we consider "whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." (*California I*, 668 F.2d, p. 1317)

- (2) In deciding whether to include an area, the Secretary weighed qualitative factors as well as quantitative factors. The Secretary listed among qualitative factors "national security, industry interest, and equitable sharing of development costs and benefits." OCSLA specifically directs the Secretary to weigh such qualitative factors in his balance.

Taking qualitative factors into account implies that the inclusion of areas with a calculated net social value of zero may nonetheless be compatible with section 18(a)(3). (*NRDC*, 865 F.2d, p. 307)

- (3) The Secretary must make a good-faith effort to balance environmental and economic interests. So long as he proceeds reasonably, however, his decisions warrant our respect. (*NRDC*, 865 F.2d, pp. 308-309)

### ***The Decision on the Draft Proposed Program for 2002-2007***

Programmatic balancing decisions must also take into account that development of a 5-year program represents a very early stage of planning in the overall process governing OCS oil and gas activity, which entails preparing the leasing schedule, implementing that schedule with individual lease sales, and permitting of exploration and development and production. The draft proposed program is followed by three more steps in the 5-year program preparation process—the proposed program, proposed final program, and ultimate approval of the new program.

In formulating the first several 5-year programs the tendency was to include more areas for consideration early in the process and then reduce the scope of the program later in the process

or even following its approval. The rationale for such an approach was that it would be better to defer decisions to exclude areas until later, because the information on which to base such decisions becomes more reliable and geographically focused as the OCS process progresses. Further, this rationale held that as program activities proceed, there are numerous occasions to refine areas under consideration when the program is implemented and as projections of hydrocarbon potential, levels of OCS activities, and possible environmental effects become more specific and more real.

It is likely that the Secretary will decide to make some substantive revisions before the new program ultimately is approved. For example, in developing the 5-year program for 1997-2002 the previous Secretary chose to analyze expansion of the area of the Eastern Gulf of Mexico that was selected for leasing at the draft proposed program stage. After analyzing that expansion in the proposed program/draft EIS and in the proposed final program/final EIS, the Secretary selected the expanded area in the approved program for 1997-2002. Any revisions or additional options considered will be the subject of a thorough analysis in the EIS accompanying the program, as well as the remaining stages of the section 18 process.

### ***Other Considerations***

Other relevant considerations that have implications for balancing environmental and socioeconomic issues and concerns with potential benefits of OCS activity are discussed in this decision document, the decision document and EIS prepared for the 5-year program for 1997-2002, and in other referenced documents. Such considerations are summarized below.

**Findings and Purposes of the OCS Lands Act.** Title I of the OCS Lands Act Amendments of 1978 sets forth a number of findings and purposes with respect to managing OCS resources. Those principles generally pertain to recognizing national energy needs and related circumstances and addressing them by developing OCS oil and gas resources in a safe and efficient manner that provides for environmental protection, fair and equitable returns to the public, state and local participation in policy and planning decisions, and resolution of conflicts related to other ocean and coastal resources and uses.

**Industry Interest.** Interest—as indicated in the comments responding to the December 12, 2000, *Federal Register* request for information—is summarized in Table 10. Industry interest is a key criterion for deciding whether to propose an area for a lease sale. However, it is not the sole and absolute indicator of the potential of an area to contribute oil and gas resources for regional and national use. Therefore, as with all of the balancing information discussed in this part, industry interest generally should be weighed with other considerations in deciding where and when to propose OCS leasing. The presentation of size, timing, and location options in part III includes discussions of industry interest along with other significant considerations. Summaries of all industry comments are provided in the appendix.

**Information Incorporated by Reference.** Documents pertaining to geographical, geological, and ecological characteristics, to local and national energy markets and needs, and to environmental and predictive information, as cited in part II, are incorporated by reference.

**Laws, Goals, and Policies of Affected States.** Relevant laws, goals, and policies identified by affected states are summarized in the options part of this decision document and in the appendix.

**Issues Raised in Comments.** All comments received in response to the December 12, 2000, request for information are summarized in the appendix, and those that correspond more specifically to program options are described in part III.

## **D. Assurance of Fair Market Value**

The 5-year program includes general provisions for assuring the receipt of fair market value in accordance with section 18(a)(4). Those provisions pertain to setting a minimum bid level and to maintaining a process for reviewing the adequacy of bids received for OCS oil and gas leases. In addition to the minimum bid requirement and bid adequacy process the MMS establishes lease terms and conditions to assure receipt of fair market value. Those more specific measures are designed and implemented based on ongoing reviews and evaluations that are independent of the 5-year program preparation process.

### **Minimum Bid Requirement**

The approved 5-year program for 1997-2002 set the minimum bid level at \$25 per acre, subject to sale-by-sale reconsideration. The minimum bid levels that currently apply to Gulf of Mexico OCS lease sales are \$25 per acre in water depths of less than 800 meters and \$37.50 per acre in water depths of 800 meters or greater (the \$37.50 level was adopted to assure the receipt of fair market value for blocks that have a 10-year primary lease term). The minimum bid level in effect for Alaska OCS lease sales is \$62 per hectare (slightly more than \$25 per acre). Part III's discussion of minimum bid options describes the effects of maintaining those requirements as well as the effects of adopting alternative minimum bid levels.

### **Bid Adequacy Process**

The 5-year program for 1997-2002 adopted the two-phase postsale process for determining bid adequacy that essentially has been in effect since 1983. The process was instituted with the implementation of the areawide leasing policy and has undergone several refinements to address specific concerns pertaining to fair market value. The most recent revision was published in the *Federal Register* on July 12, 1999 (64 *FR* 37560).

The bid adequacy process now in effect consists of two phases for distinguishing those bids that reflect competitive market forces assuring receipt of fair market value and those that require further detailed analysis. Part III describes the current postsale process and also briefly discusses the alternative of using a presale bid evaluation process to assure receipt of fair market value. A more detailed description of the existing bid adequacy process—*Summary of Procedures for Determining Bid Adequacy at Offshore Oil and Gas Lease Sales: Effective July 1999, with Sale 174*—is available at on the internet at [www.gomr.mms.gov/homepg/lseale/fmv](http://www.gomr.mms.gov/homepg/lseale/fmv).

## Appendix

### Summary of Comments to December 12, 2000, *Federal Register* Notice Concerning Preparation of the 5-Year OCS Oil and Gas Leasing Program for 2002-2007

#### Introduction

Section 18 of the OCS Lands Act, 43 USC 1344, requires the Department of the Interior (DOI) to prepare a 5-year OCS oil and gas leasing program. To begin preparation of the 5-year program for 2002-2007, the MMS issued a *Federal Register* Notice soliciting comments. This appendix is a summary of all comments received in response to that notice.

#### Number of Comments by Category

Governors and State Agencies	16
Local Governments	12
Members of Congress and Federal Agencies	8
Environmental and Other Interest Organizations	20
Oil and Gas Industry	15
General Public	10,054
Total	10,125

#### Summary of Comments

##### State Governments

- The Director of State of California Department of Conservation, supports the decision to exclude the California coast from the 2002-2007 leasing program.
- The Director of the Department of Environmental Quality for the Commonwealth of Virginia is the lead agency coordinator for comments from the state government.
- State Senator Jack O'Connell and Representative Hanna-Beth Jackson, members of the California State legislature strongly support the exclusion of offshore California from the next leasing program. They state that no further leasing should occur until the fate of 36 inactive leases have been resolved.
- The Office of Coastal Planning & Program Coordination of the State of New Jersey Department of Environmental Protection. Because the Atlantic Planning Area is under moratoria, the State of New Jersey will not be actively participating in the planning process.

- The Governor of the State of Alabama states that he is opposed to any leasing of blocks south and within 15 miles of the Baldwin County (Alabama) coast. The Governor requests that exclude these blocks for leasing in the 2002-2007 leasing program.
- The Governor of the State of Maine states that since the North Atlantic Planning Area is among the planning areas withdrawn from consideration until 2012, this area should not be considered in any way in the next 5-year program.
- The Governor of the State of New Hampshire indicates that she is aware of the moratorium of the area. The Governor encourages MMS to reach out to states that are affected by OCS policy and address the supply and demand issues and look at the risk of offshore activity.
- The Acting Governor of New Jersey sent an e-mail stating his opposition to any leasing activity offshore New Jersey.
- The California Coastal Commission states that the CCC supports the prohibition of leasing off the entire coast of California. The CCC has consistently opposed new lease sales in frontier areas with no facilities because of concerns about individual and cumulative adverse impacts to coastal resources.
- The Governor of the State of Louisiana has provided the comments of the Secretary of the Department of Natural Resources. The Secretary states that Louisiana's primary concerns with OCS leasing and developments program directly relate to the extensive coastal wetlands and the fisheries, and wildlife resources therein, and the close geographic proximity of the OCS development.

Loss of wetlands in Louisiana results in part of diverse OCS generated activities. All these activities are not attributed to one company but a collection of all the oil and gas leasing activities.

Louisiana views the Federal agency responsible for promoting and benefiting from the development and exploration of energy resources. Therefore, the MMS should compensate Louisiana for these secondary and cumulative impacts.

Louisiana also requests that the MMS provide a review of future impacts as compared actual impacts. If the MMS does not have this data, they recommend a provision in the 5-year program to obtain the information for the 2008-2013 5-year program.

Finally, the Secretary recommends that the MMS take the leadership role in finding methods to adequately compensate Louisiana which has bore the brunt of OCS development impacts.

- The Florida Department of State advises that their office is to advise and assist federal agencies when identifying historic properties, assessing effects on them, and considering alternatives to avoid or reduce a project's effect on them.
- The Secretary of Environment Affairs from the Commonwealth of Massachusetts responds on behalf of Governor states that while energy supply and distribution issues are very much in the forefront here in New England and our nation, we assert that it is ill advised to consider opening frontier areas to oil and gas exploration and development of a national energy strategy.
- In a joint letter, Governors of Oregon and Washington state their opposition to leasing offshore of their states and support the current moratorium.
- The State of Florida Department of Environmental Protection is pleased that the next 5-year program will continue the current moratoria on leasing in most of the Eastern Gulf of Mexico and the South Atlantic Planning Areas off Florida's shores.
- The Governor of Alaska stated that the recent high prices for energy and the current natural gas shortage underscores the importance of developing domestic oil and gas reserves.

The State urges lease sales in the areas with the highest likelihood of containing hydrocarbons such as the Beaufort Sea and Cook Inlet planning areas.

The State urges the MMS to defer the following areas:

Beaufort Sea Planning Area: Tracts in the vicinity of Barrow.

Cook Inlet Planning Area: Shelikof Strait

Gulf of Alaska Planning Area: Nearshore area between Cross Sound and Dry Bay, and tracts in the Fairweather Ground.

St. George Basin Planning Area: Tracts within a 30-mile radius of the Pribilof Islands and Unimak Pass.

Norton Basin Planning Area: Tracts within 12-mile of the Yukon Delta.

Chukchi Sea Planning Area: Chukchi polynya.

The State expresses concern about oil spill clean-up capabilities and urged the MMS to consider that future lease planning decisions should be based upon appropriate spill prevention measures for mitigation of spill risk during seasonal ice periods.

- The State of Connecticut Department of Environmental Protection is responding on behalf of the Governor. The state supports the President's decision to withdraw the North and Mid-Atlantic Planning Areas. The state believes that the necessity of natural resource protection outweighs the minimal potential oil production from this area.

- The Governor of Rhode Island stated because of the moratoria there will not be any leasing in the planning areas adjacent his state. However, he applauds the continued commitment of the MMS to sound science and meaningful consultation in support of safe development on the OCS.

### **Local Governments**

- The Hampton Roads Planning District Commission located in Chesapeake, VA. stated that his organization is taking the same position that was communicated to the MMS in 1991. They oppose any oil and gas exploration offshore of Virginia.
- The Mayor of Dana Point, CA, states that the city is greatly concerned about offshore oil and gas activities and does not support new leasing.
- The Chair of the Santa Barbara, CA Board of Supervisors, writes that the Board fully concurs the decision to exclude the Pacific OCS Region from the 2002-2007 leasing program. The Board is also concerned about Alaska because of oil tanker traffic near the California coast.
- Curry County, Oregon Commissioners Marlyn Schafer, Lucie La Bonte, and Cheryl Thorp have communicated that they support the deferrals of California and Oregon from the leasing program.
- The Apalachee Regional Planning Council in Blountstown, FL stated that the Council Staff any further leasing of area within the Eastern Gulf of Mexico planning area.
- J. David Colfax, Ph.D., a member of the Mendocino County (California) Board of Supervisors, wanted to inform the agency that the Board of Supervisors was planing to pass a resolution opposing any oil and gas activity off the Northern California coast.
- The Mayor of the city of San Clemente, CA. writes that the City has concerns about offshore developments and supports the current moratorium. The City also encourages the MMS that the studies identified by the National Research Council and the MMS be completed.
- The Mayor of the North Slope Borough, Alaska states that the Borough's general opposition to and specific concerns over offshore oil and gas, exploration, and developed is well known. It is the Borough's view that the Federal government should focus its arctic oil and gas leasing efforts on land rather than onshore.

The Borough maintains that the biological and cultural resources of the Beaufort and Chukchi Seas are too sensitive and should not be considered in the next 5-year program.

If OCS leasing continues in the Arctic, the North Slope Borough will insist that stipulations 4, 5, and 6 included in Sale 170 for bowhead monitoring be included and enforced.

The Borough also supports revenue sharing and feel that local governments that feel of the impact of oil and has industry should be afforded some of the revenues.

- Supervisor Steve Bennett of the Ventura County (California) Board of Supervisors sends a copy of resolution passed by the Board that recommends no new leasing in the Pacific OCS Region.
- MMS Officials from the Alaska Regional Office conducted 11 open meetings in Homer, Soldotna, Kodiak, Kotzebue, Anchorage, Kivalina, Borrow Fairbanks, Kaktovik, and Point Hope. In addition, meeting with native groups and public officials from: Homer City Council, Kenai Peninsula Borough Mayor, Kodiak Planning and Zoning Commission, Kotzebue IRA Council, Kivalina IRA Council, and the Native Village of Barrow. MMS officials conducted these meeting to get valuable information on local views of oil and gas activities in Alaska.

### **Members of Congress and Federal Agencies**

- Senators Graham and Nelson and 22 Member of the U.S. House of Representatives co-signed a letter urging the MMS to exclude all OCS lands impacting Florida coastline from the next 5-year program.
- Congressman Mike Thompson of California writes to voice his support for continued moratorium offshore Northern California.
- The Office of Habitat Conservation of the National Marine Fisheries Service (NMFS). NMFS recommends that the 5-year program include: Consultations requirements of the Magnuson-Stevens Act and the implementing regulations. The EFH programmatic consultations and the agreement on EFH consultation procedures to be employed by NMFS and the Gulf of Mexico OCS Region of the MMS to ensure compliance of the Mangnuson-Stevens Act; A description of EHF and Federally-managed fishery resources as identified in fishery management plan amendments
- The U.S. Environmental Protection Agency suggests that focusing promising acreage for leasing is preferable to area-wide approach. EPA believes that industry interest, geologic potential, and environmental sensitivity are the three primary issues to be considered in determining the tracts to be included in the sale area. The next 5-year program should include rules for implementing such an approach.

The timing of lease sale activities in each planning basin within the OCS is affected by the equitable sharing and the balancing of multiple use of the OCS analyses required in Section 18 of the OCSLA. The court provided guidance that stated that

MMS should examine alternatives to simultaneous development that would mitigate any synergistic impacts on migratory species such as staggering development.

Decisions on location of leasing activities should consider sub-areas for deferral if the sub-area: has a high primary and secondary productivity; has habitat or species that particularly vulnerable to oil and gas exploration, development, and production; supports sensitive threatened or endangered species; is significant to critical life stages or the continued viability of populations; or has a habitat where large number of species or individuals of population concentrate.

- The Acting Director of the U.S. Fish and Wildlife Service recommended excluding the areas of the Beaufort Sea off ANWR and off the Teshekpuk Lake Surface Protection Area. The FWS also discussed resources and concerns related to the Alaska Maritime National Wildlife Refuge, described the ranges of threatened species, and recommended consultations under section 7 of the Endangered Species Act.
- The Secretary of U.S. Department of Energy urges the MMS to promote innovative mechanisms such as its royalty holiday programs for projects in deep waters or in deep formations on the shelf in the Gulf of Mexico.

The DOE recommends MMS take in account the positive effects of improving and emerging technologies will have on reducing the environmental impact from development and production activities associated with the proposed leasing program.

The DOE recommends that the MMS incorporates the socioeconomic benefits of increased OCS development into the environmental assessments conducted for activities associated with the proposed leasing program.

- Congressman John Mica of Florida writes to express concerns about future energy demands of his state. He supported efforts to exclude any new leases within 100 mile of the Florida coastline, but does not support efforts to now demand that leasing be completely banned from the area.
- National Aeronautics and Space Administration does not have any comments on the leasing program other than concern about air quality standards. Most NASA launch facilities and activities occur along the coastline and in Clean Air Act attainment areas. Therefore, NASA is concerned that oil and gas activities could result in non-attainment status for some or all covered chemicals.

### **Environmental and Other Interest Organizations**

- The Chair of the Kachemak Bay State Parks Citizen Advisory Board in Homer, AK writes to express that the group is opposed to the inclusion of Cook Inlet/Shelikof Strait in the OCS 2002-2007 program.

- The President of the League of Women Voters of Oregon states that her organization opposes any oil and gas leasing in the area offshore of Oregon and supports the current moratorium.
- The Oregon Surfrider organization in Eugene, OR, urges the MMS to unequivocally continue the moratorium that protects the Oregon coast from oil and gas leasing activities.
- The Otter Project in Marina, CA, indicates that the organization is extremely concerned about new and expanded oil and gas activity and its impact on the otter and other sea life.
- The Marine Conservation Advocate of Environment Defense urges the MMS before any 5-year program is adopted that the following issues must be reviewed. Those issues should include: compliance with the CZMA, Clean Water Act, Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, oil spill technology, and the impact on coastal jurisdictions.
- The Northwest Regional Director of the Pacific Coast Federation of Fishermen's Association opposes any oil exploration offshore California and urges MMS to adhere to the current moratorium.
- The President of Inupiat Community of the Arctic Slope, IRA, located in Barrow, Alaska, states that his organization supports the comments submitted by the Alaska Eskimo Whaling Commission.
- The ReefKeeper International supports the current moratorium and deferred areas in the Eastern Gulf of Mexico. The group also supports the MMS to perform further studies on coral reef habitats and reef fisheries resources before leasing. Reefkeeper also suggests that OCS be a source of last resort for any national energy policy.
- The Bluewater Network urges the MMS to heed this warning and not put our delicate and priceless North American coastline at necessary and fruitless risk. They support the current moratorium.
- Save our Shores (SOS) supports the current moratorium in California and opposes any leasing in Alaska.
- The Coastal Waters Project opposes the sale of oil and gas leases off the New England coast.
- The Clean Oceans Action and the American Littoral Society submitted a statement that is joined by: Representative Frank Pallone, Coalition Against Toxics, Concerned Citizens of Montauk, Friends of Long Island Sound, Friends of the Boardwalk, Group for the Southfork, S.T.A.R. Foundation, Natural Resources Protective Association, Wetlands Coalition, New Jersey Environmental Federation, Gallco Enterprises Inc.,

New Jersey Public Interest Research Group, Chef Rumson Presbyterian Church Peacemaking, Salt Water Anglers of Bergen County, Sierra Club New Jersey Chapter, and several individuals. The Group opposes the sale of offshore oil and has leases off the New Jersey coast, as well as any exploration and development activities in other coastal environments.

- The Natural Resources Defense Council, Center for Marine Conservation; Alaska Marine Conservation Council, Arctic Connections, Sierra Club, Cook Inlet Keepers, Greenpeace, LegaSea, American Oceans Campaign, California League for Coastal Protection, North Carolina PIRG, Washington PIRG, U.S. PIRG, Northern Alaska Environmental Center; Florida PIRG, California PIRG and Environmental Defense Center submitted a statement. The groups support the current moratorium.

The groups also state that the Sale 181 area in the Gulf of Mexico should be excluded from the next 5-year program; Further, a policy that favors gas development in the moratoria areas is misguided and should be rejected. There needs to be greater protection for Alaska development. They request that the entire area OCS north of the Arctic National Wildlife Refuge be removed from any further consideration from the next 5-year program.

Removing the moratoria areas, the Sale 181 area and the Alaskan OCS from the 5-year program will not threaten the nation's energy security or have any impact on the price or availability of petroleum products.

- The Cook Inlet Keeper opposes any leasing in Cook Inlet/Shelikof Strait. The group states that there must be a national energy strategy which recognizes the social, economic, and environmental costs, and which incorporates alternative energies and conservation to reduce dependence on non-renewable fossil fuels.

The Cook Inlet/Shelikof Strait is home to beluga whales. The MMS must get a better grasp on beluga whale impacts before moving into this area.

- Get Oil Out! e-mailed a resolution that states the groups opposition to any leasing offshore California.
- The Environmental Defense, Sea Otter Campaign of Earth Island Institute, League for Coastal Protection, California Coastal Protection Network, CalPIRG, California CoastKeeper; League of Women Voters of Santa Barbara, Sierra Club Los Padres Chapter, Environmental Center of San Luis Obispo, Citizens for Goleta Valley; and Isla Vista Chapter, and the Surfrider Foundation, jointly submitted a statement. The groups request that the MMS exclude the Pacific OCS Region from the 2002-2007 5-year program.
- The Wilderness Society would like the following OCS areas withdrawn from consideration: OCS area north of the Arctic Refuge, Beaufort Sea, Chukchi Sea/Hope

Basin, Gulf of Alaska; Cook Inlet/Shelikof Strait, Bristol Bay, and North Aleutian Basin.

- The Citizens Planning Association of Santa Barbara, California opposes any expansion of offshore drilling off the California coast.
- The Alaska Eskimo Whaling Commission in Barrow, Alaska urges the MMS to investigate the effects of oil spilled on Arctic ice, especially the effects of oil trapped in the shorefast ice on the integrity of that ice. The MMS should work with the Whaling Commission to further enhance oil spill capability. Further studies should be performed on the effects of drilling muds and other drilling discharges.
- The United Cook Inlet Drift Association is opposed to the sale of oil and gas leases in the Cook Inlet north of the latitude of Anchor Point in the Federal OCA area.

### **Oil and Gas Industry**

- The American Petroleum Institute in Washington, D.C. API states that the Eastern Gulf of Mexico is a critical source of the new gas needed to satisfy the demand growth. Policy makers should not forget about the Atlantic and Pacific coasts because of their deposits.

The API has long held that coastal communities are impacted because of OCS exploration and development and should be compensated. Impact assistance is the proper tool for sharing OCS revenues.

The API contends that MMS should continue to hold lease sales in the Sale 181 area because of its location to the states along the Gulf of Mexico and existing Gulf infrastructure.

The API urges that MMS should rely on market forces and information to determine fair market value.

- The National Ocean Industries Association President urges the MMS to carefully examine the option of including areas in the 5-year program that been the subject to moratoria in the past. The NOIA states that the tightness of the current energy market and the distinct possibility of grave shortages in the near future dictate that the MMS leave open the possibility that the moratoria may be reconsidered in the next 5-year program.

The National Ocean Industries Association states that its members believe that energy demands and needs compel the MMS to leave open the possibility that offshore areas, even those currently under moratoria, be actively considered in the new 5-year program. The NOIA supports the annual area wide lease sales in the Central and Western Gulf of Mexico. Because of the vast reserves of natural gas in the Eastern Gulf of Mexico, the next 5-year program should allow leasing in this area.

The NOIA also states that the 5-year program should include areas such as the Atlantic and Pacific, and then allow policy makers to make a later determination in face of energy demands.

- The EBP Exploration (Alaska) Inc. (BPXA) supports including near-shore acreage including acreage offshore the Alaska National Wildlife Refuge and the National Petroleum Reserve-Alaska, be included in the next 5-year program. They also support predictable sales and express concerns about past sale deferrals.
- ExxonMobil Exploration Company states that the next leasing program should be designed to make a positive contribution to meeting the Nation's energy needs. The company states that lease sales should cover entire planning areas and contends that restricting certain areas is counterproductive and severely hinders industry's ability to expand domestic exploration. ExxonMobil supports the current minimum bid of \$25 per acre on the shelf and \$37.50 per acre in deepwater stating that it has worked well and should be continued.
- Chevron U.S.A., Inc. has focused its domestic exploration strategy on the Nation's OCS as the primary source of our country's future energy supply. However, their commitment is dependent on making high potential areas available, maintaining a firm leasing schedule that allows for an orderly investment planning, and provide certainly that lease holds can develop a lease without unreasonable delays.

Chevron also supports revenue sharing with coastal states and local governments.

The company also wants the MMS to promote increased natural gas production by opening more of the Eastern Gulf of Mexico to leasing, drilling, and developments to growing markets such as Florida.

Chevron also favors periodic leasing in the Eastern Planning Area and supports opening up the Mid and South Atlantic and has continued interest on the Beaufort Sea.

- Devon Energy Corporation believes that the next 5-year program should include a minimum of two lease sales per year, one for all leases in the Gulf of Mexico Planning Area and one for all leases in the Western Gulf of Mexico Planning Area. In addition, two additional sales in the Eastern Gulf of Mexico Planning Area should be held. This sale should be expanded all of the area and not just lands included in Sale 181.

Devon also encourages that the MMS should adopt certain incentive programs.

- The BP and its affiliated companies Amoco Production Company, BP Exploration & Oil Inc., Vastar Resources Inc., and Vastar Offshore propose that the MMS continue with the area wide leasing system. The company urges MMS to re-engineer the

process in which Fair Market value is established. BP also urges the MMS to develop incentives for companies working in deepwater.

- Union Oil Company (Unocal) strongly believes that a predictable OCS leasing schedule is important. Only through a reliable, stable, and consistent leasing program, will companies make the necessary commitment of time, manpower, and capital required to analysis, explore, and develop any Planning Area.

The company points out that an excellent model for OCS leasing program would be the State of Alaska Area wide Leasing Program. The state's program has led to increased competition and has attracted new investors.

The company also believes there are extensive environmental studies of the Beaufort Sea, Cook Inlet/Shelikof Strait. The BP encourages the MMS to include those Planning Areas in the next 5-year program.

- Phillips Alaska, Inc supports area-wide OCS lease sales every other year in the Beaufort Sea, certainly within 30 miles of the shoreline. They also support Cook Inlet area-wide lease sales every other year.

The company also urges the MMS to review the State of Alaska leasing model. Phillips believes that Alaska's approach has encouraged more exploration activities and investment in Alaska's onshore and offshore areas. A stable leasing environment is critical to attract an effective exploration program in the Planning Areas in Alaska.

- Texaco Exploration and Production Inc. states that when the President withdrew a large portion of the OCS from leasing, he severely restricted industry's ability to search for new hydrocarbons in the OCS. Without access, industry's ability to provide needed domestic oil and natural gas will be significantly hampered.

Texaco supports the annual lease sales in the Central and Western Gulf of Mexico and urges new innovations such as the MMS move to electronic transfer of funds. Enhancements of this sort have added to the efficiency of the sale process and helped eliminate possible errors in the proper payments of money due.

The Company also supports the current royalty relief incentives on lease extensions for sub-salt prospects located in shallow water.

- The Alaska Oil and Gas Association states that a dependable OCS leasing schedule is central to meeting the Nation's energy needs. The MMS should develop an area wide leasing program for the Beaufort Sea and Cook Inlet. They also encourage that the areas that had been in past schedule be reviewed for possible leasing and recommends that the Gulf of Alaska, Chukchi Sea/Hope Basin be included in the new 5-year program.

- Marathon Oil Company, offers these recommendations. With production in shallow in decline, a key goal of any leasing program is sustaining the expansion of oil and gas supplies in deepwater. The Deepwater Royalty Relief Act of 1995 has provided the financial incentives for companies to develop these resources.

The Eastern Gulf of Mexico is a critical source for new gas and the MMS should strive include annual lease sales in this area because of the proximity of the area to Florida and its unique and sizable energy requirements.

Policy makers should not overlook Pacific, Atlantic coasts and well as Alaska for energy sources.

Finally, MMS support for deepwater incentives and the ability to obtain permits for environmentally responsible drilling activities within a reasonable timeframe are extremely important components of a sound energy policy.

- Shell Exploration and Development Company states that the company strongly support the continued annual offering of all acreage in the Central and Western Gulf of Mexico areas. Smaller sales could be accommodated as the entire Central and Western Gulf of Mexico acreage is offered annually.

In the Eastern Gulf of Mexico, Shell supports two re-offerings of the Sale 181 acreage in the next 5-year program. Shell would like to see this highly prospective acreage made available for lease every two years.

In area outside the Gulf of Mexico, Shell urges the MMS to move expeditiously to complete the required environmental studies and to work cooperatively with coastal state Governors and Members of Congress in an effort to identify opportunities and address barriers to development of hydrocarbons. To that end, Shell supports focused leasing (rather than area-wide) and the establishment of regional task forces in select moratoria areas designed to clarify and address concerns of coastal residents.

- Anadarko Petroleum Corporation urges MMS to consider implementing an area wide lease sale program in the Alaska OCS.

In order to meet the predicted demand for natural gas in the U.S., Anadarko supports the continued evaluation by the MMS of the Atlantic and Pacific OCS regions for future leasing. They also support continued lease sales in the Eastern Gulf of Mexico.

- Chevron U.S.A. Production Company supports holding the OCS Beaufort Sea Lease Sale 176 as scheduled in early 2002 and area wide sales every other year thereafter.

## **General Public**

- More than 10,000 e-mails and letters were received from citizens regarding the next 5-year program. A vast majority of the e-mail comments were a result of special interest Internet web site that generated a form letter. Only a few of these comments were in support of the oil and gas leasing program.



## The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interest of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.



## The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.

Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The MMS **Minerals Revenue Management** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.