

CHAPTER 1 - PURPOSE AND NEED

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1 PURPOSE AND NEED

1.1. INTRODUCTION

In many parts of the United States, National Forest System lands overlie geological formations that contain oil and/or natural gas. "Leases" are issued under the mineral leasing laws on many lands for the purpose of drilling exploratory and production wells and extracting oil and/or gas. The mission of the Forest Service in relation to minerals management is to support, facilitate, and administer the orderly exploration, development, and production of mineral and energy resources on National Forest System lands to help meet the present and future needs of the Nation (Mining and Minerals Policy Act [1970] and Forest Service Manual (FSM 2802).

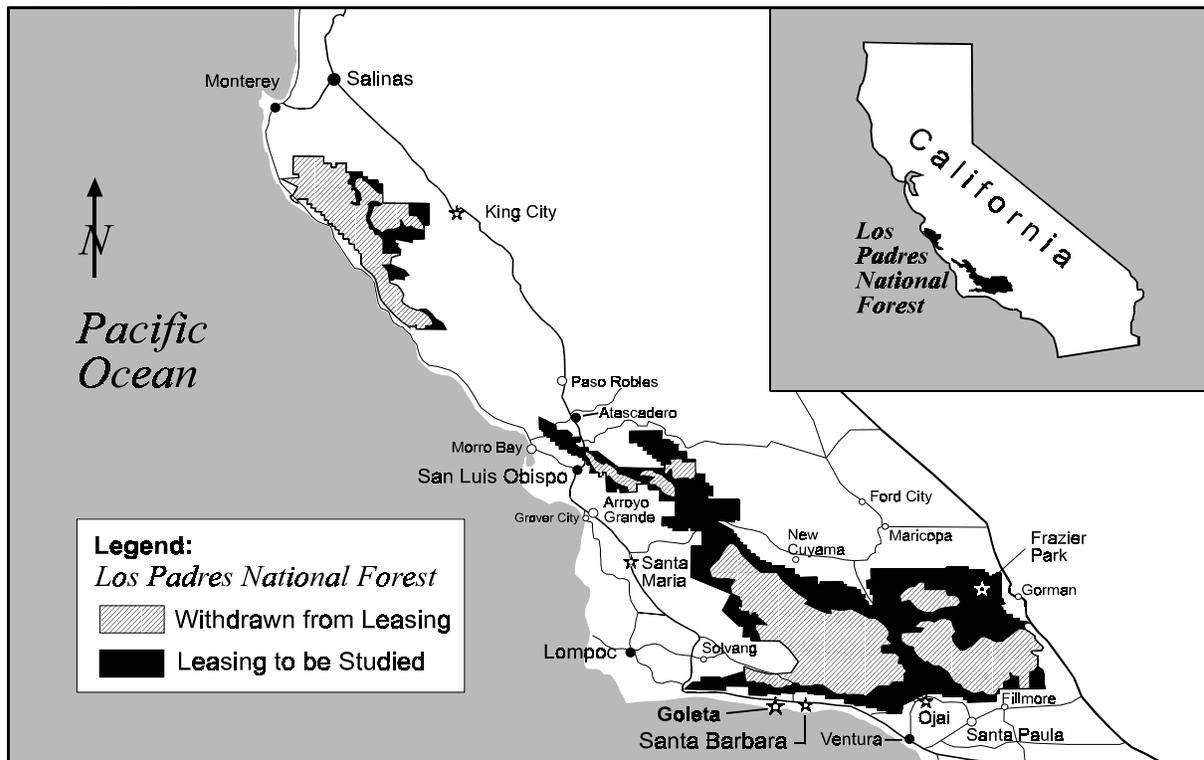


FIGURE 1-1: LOCATION OF LOS PADRES NATIONAL FOREST AND LANDS CONSIDERED FOR OIL & GAS LEASING

The United States Department of Agriculture, Forest Service, Los Padres National Forest (LPNF) in cooperation with the United States Department of the Interior, Bureau of Land Management (BLM), Bakersfield field office, is conducting an environmental analysis with the intent of identifying Federal lands with Federal mineral rights and determining whether or not they should be made available for oil and gas exploration, development, and production on the Los Padres National Forest. The Forest Service is the manager of the surface resources on National Forest System lands and BLM is the manager of Federal subsurface minerals. Figure 1-1 above shows which parts of LPNF are “withdrawn from mineral entry” and which can be considered for oil and gas leasing. This analysis is being conducted in accordance with the National Environmental Policy Act of 1969 (NEPA) to identify and assess potentially significant environmental impacts and address issues associated with leasing.

1.2. GENERAL BACKGROUND: LEGISLATION AND POLICY

Leasable public domain minerals (those which have never passed out of Federal ownership) are leased under authority of the Mineral Leasing Act of 1920, as amended. Acquired minerals (those which were re-acquired by the Federal government) are leased under the authority of the 1947 Mineral Leasing Act for Acquired Lands, as amended.

The Mineral Leasing Act of 1920, as amended, provides that all public lands are open to oil and gas leasing, unless a specific land order has been issued to close an area. Prior to 1987, to lease a parcel of land administered by the Forest Service, Department of Agriculture, a request would be submitted to the BLM, Department of Interior. The Forest Service would be asked for a recommendation regarding the offering of a lease tract and appropriate stipulations to protect the surface resources. However, the primary authority and responsibility for determinations regarding leasing remained with the Secretary of the Interior and the BLM.

In 1987, Congress passed the Federal Onshore Oil and Gas Leasing Reform Act (Leasing Reform Act). This resulted in modifying the authorities of the Secretary of the Interior and Secretary of Agriculture by increasing the role of the Forest Service in the leasing process. The Leasing Reform Act gave the Forest Service approval authority for leasing public domain minerals on National Forest Systems lands. The Act changed the analysis process from “responsive”, reacting to an application, to “proactive”, analyzing lands for leasing and then offering them for lease through competitive bidding. Subsequently, the Forest Service developed new regulations in March of 1990 (36 CFR Parts 228 and 261) to implement the Leasing Reform Act, and to provide guidance for oil and gas leasing and surface-use management on National Forest System land.

The Leasing Reform Act also established a statutory requirement for processing the Surface Use Plan of Operation (SUPO) prior to ground-disturbing activities. This established a staged decision process for sale of a lease and approval of an Application for a Permit to Drill (APD). That is, before a lessee can drill an exploratory well or extract oil or gas from National Forest System lands, the Forest Service must first identify available lands and authorize sale of a lease. At a later time, when a lessee submits an APD, the Forest Service must approve or disapprove a detailed Surface Use Plan of Operations. The lease decision is an environmental analysis in

accord with the requirements of the National Environmental Policy Act (NEPA, 40 CFR part 1502) that identifies stipulations needed to protect the environment. The approval of drilling is also based on additional environmental analysis in accord with NEPA, which is specific to the proposed APD and SUPO.

The Leasing Reform Act and the implementing regulations resulted in the establishment of a "staged" decision process designed to accommodate the tentative nature of oil and gas exploration and development, which is very speculative and costly. The stages include decisions on:

- *lands available for leasing*
- *lease or not lease specific lands*
- *Surface Use Plan of Operations (SUPO) connected with the Application for Permit to Drill (APD)*
- *field development if oil or gas is discovered.*

Each decision is based on environmental analysis and disclosure of the probable effects in accordance with NEPA. ***This environmental analysis and EIS addresses only the first two of the four decision stages for National Forest System lands on Los Padres National Forest.*** If LPNF lands were leased, decisions for stages three and four would be based on site-specific environmental analyses to be conducted after the required SUPO's and APD's are received. The staged decision process is described in detail in Appendix A.

1.3. PURPOSE OF THIS EIS

The purpose of this EIS is to disclose the environmental effects of alternative leasing scenarios the Forest Supervisor is considering for managing the oil and gas resources on Los Padres National Forest. This analysis and EIS will also implement the authorities and responsibilities granted to the Forest Service by the Leasing Reform Act and meet the Federal regulatory requirements of 36CFR228, Subpart E.

This EIS describes:

- *the environmental issues and concerns related to the alternative leasing actions;*
- *the potentially affected environment;*
- *alternative patterns of land which could be available and authorized for leasing;*
- *mitigating lease stipulations to be applied for each alternative; and*
- *the direct, indirect and cumulative environmental consequences of these alternatives.*

This EIS describes and explains the leasing decisions the Forest Supervisor will make. It explains how the Forest Supervisor and the State Director of the Bureau of Land Management (BLM) would implement any decision, if made, to authorize and sell leases and how future decisions may be made to issue permits to drill and develop fields of oil and gas.

1.4. SUMMARY OF EVENTS AND DECISIONS PRECEDING THIS EIS

Following is a chronological list of Events and Decisions Preceding this EIS.

1920 - Mineral Leasing Act (as amended) - This Act provides that all public lands are open to oil and gas leasing, unless a specific land order has been issued to close an area. The primary authority and responsibility for determinations regarding leasing remained with the Secretary of the Interior and the BLM.

1947 - Mineral Leasing Act for Acquired Lands - Provides that certain minerals owned by the United States, which are on lands acquired by the United States, may be leased by the Secretary of Interior under the provisions of the mineral leasing laws.

1960 - Multiple Use - Sustained Yield Act (16 USC 528) - This Act establishes the legal mandate that the National Forests are to be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes. It further states that management of National Forest System lands shall not affect the use or administration of the mineral resources in these lands.

1969 - National Environmental Policy Act - The National Environmental Policy Act establishes environmental policy for the Nation. Among other items, NEPA requires Federal agencies to consider environmental values in decision-making processes.

1973 - The Endangered Species Act of 1973, as amended (16 USC 1531) - This law requires special protection and management for threatened and endangered species on Federal lands. The Fish and Wildlife Service (FWS), U.S. Department of the Interior, and the National Marine Fisheries Service (NMFS), Department of Commerce are responsible for administration of this Act. Federal agencies proposing an action or processing an action by a third party which “may affect” identified species must consult with FWS to determine if the proposed action will jeopardize the continued existence of those species.

1976 - California Coastal Act - This California law describes policies for land use and development along the coastal zone, defined as a strip of land from the shoreline to the top of the first major ridgeline, or five miles inland, whichever is closer. The Monterey County Local Coastal Program regulates development on private lands within this zone. Federal Coastal Management Act consistency provisions require that “Federally licensed or permitted activities significantly affecting the coastal zone are conducted in a manner consistent with approved management programs” to the extent consistent with Federal laws and regulations.

1976 - Federal Land Policy and Management Act (FLPMA) (41 USC 1714) - This law authorizes the Secretary of the Department of the Interior to withdraw public lands from entry under the mineral leasing laws. However, on withdrawals of 5,000 acres or more, the Secretary must notify both Houses of Congress of the proposed withdrawal; Congress then has 90 days to nullify that action.

1976 - National Forest Management Act (NFMA) - Each administrative unit of the National Forest System is required by the National Forest Management Act (NFMA) to prepare a Land and Resource Management Plan (Forest Plan). A forest plan provides direction to assure coordination of multiple uses (recreation, range, timber, minerals, watersheds, wildlife and fish) and a sustained yield of products and services. Each forest plan is adjustable through monitoring and evaluation, amendment and revision.

Approval of a forest plan results in:

- *Establishment of forest multiple-use goals and objectives*
- *Establishment of forest wide management requirements (standards and guidelines)*
- *Establishment of management areas and management area direction*
- *Designation of suitable timber land and establishment of allowable sale quantity*
- *Recommendations for designation of eligible lands as Wilderness or other special areas*
- *Establishment of monitoring and evaluation requirements.*

Coupled with the laws and regulations that apply to the project level, a forest plan provides a management system for future decision making. Projects and activities are proposed, analyzed, and carried out within the framework of the plan.

1980 - Interim Memorandum of Understanding between the Bureau of Land Management (BLM) and the Forest Service - This MOU established procedures for obtaining recommendations from the FS in issuance of leases on National Forest System lands. It provides for review of leasing proposals by the FS, as the surface management agency, to ensure cooperative, timely, and orderly action by BLM and FS with respect to leasing activity, consistent with the assigned responsibilities of each agency. FS review ensures that appropriate stipulations are incorporated which will provide for the prevention or control of adverse impacts on surface resources values, uses and improvements. The FS report is considered by the BLM State Director in making the issuance decision. Decisions of a State Director are appealable to the Department of the Interior Board of Land Appeals.

1980 - The National Materials and Minerals Policy Research and Development Act (30 USC 1601) - This Act states the current Federal policy regarding oil and gas exploration and development. It says that private enterprise is to be encouraged to develop domestic mineral resources and that Federal agencies are to facilitate availability and development of domestic resources. It also emphasizes prompt reclamation of disturbed lands.

1980 - The Energy Security Act of 1980 (42 USC 8855) - This law directs the FS to proceed in making recommendations to BLM regarding leasing proposals on National Forest System lands. Applications for geophysical survey permits must also be processed promptly. The FS may not wait for the Forest Land and Management Plans to be completed before acting upon application for oil and gas leases.

1987 - Approval of the LPNF Forest Plan - The Forest Plan for Los Padres National Forest was approved in 1987. This long-range, integrated land and resource management plan provides for integrated guidance for all natural resource management activities as required by the National Forest Management Act of 1976 (NFMA). The Forest Plan is currently being updated.

1987 - Federal Onshore Oil and Gas Leasing Reform Act - The BLM issues all leases for the production of Federally owned oil and gas. Prior to the Leasing Reform Act of 1987, the Forest Service's authority regarding oil and gas leases issued on National Forest System lands was varied, and in most cases the Forest Service only made non-binding recommendations to the BLM. Under the Leasing Reform Act, the Forest Service's decision to lease with certain stipulations, or not to lease, is binding with the BLM for all Federal minerals on National Forest System lands. The 36 CFR 228 regulations, issued in April 1990, established the new process for making oil and gas leasing decisions in accordance with the Leasing Reform Act.

April 1990 - 36 CFR 228E Regulations - The regulations prescribe methods by which the Forest Service will make decisions with regard to oil and gas leases and subsequent management of oil and gas operations on National Forest System lands. These regulations lay out the process for determining lands administratively available for leasing, including the designation of stipulations and the projection and analysis of post-leasing activity. (Refer to Appendix A, Lease Decision Issuing Process.) The regulations describe the Forest Service process for authorizing the BLM to offer leases for sale.

May 1990 - Forest Service Resource Planning Act Long Term Strategic Plan - The Resource Planning Act (RPA) program provides general policy guidance at the National level based on a five-decade projection into the future. The Forest Service has defined nine roles in its basic National strategic plan. Multiple-use management, contributions to rural development, and management in situations of mixed ownership situations are three of those roles. The issue of minerals development is described in the 1990 RPA document as:

The mineral resources within the National Forest System significantly affect the economic well-being of local communities and the strategic defense of the Nation. The public is concerned about the effects of minerals development on other resource values and on the environment.

In the RPA document, the long-term strategy for minerals is to meet most demands for access to explore and develop mineral resources, except when doing so would pose unacceptably high risks to other resources.

June 1992 - Los Padres Condor Range and River Protection Act - This Act designated seven new wilderness areas, encompassing over 400,000 acres, more than doubling the wilderness area set aside within LPNF. This law also designated segments, totaling 84 miles, of Sespe Creek and the Sisquoc and Big Sur rivers as components of the National Wild and Scenic Rivers System. Additionally, the Act provided for wild and scenic river studies on an additional 110 miles of rivers within the Forest boundary.

1999 - Southern California Conservation Strategy - The SCCS is a long-term strategy shared by the Angeles, Cleveland, Los Padres and San Bernardino national forests to provide ecosystem health and protection of threatened, endangered, proposed and sensitive plant and wildlife species while continuing to accommodate other uses of the forests. The SCCS has three components: 1) settlement of a lawsuit initiated by the Southwest Center for Biological Diversity, 2) consultation with the U.S. Fish & Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) on existing Forest Plans, and 3) revision of the four Forest Plans.

January 2001 - Roadless Area Conservation Rule - With certain exceptions, this rule prohibits new road construction or reconstruction in inventoried roadless areas on NES lands. This rule was to become effective on March 13, 2001. (Note: The Bush Administration delayed the effective date of this rule until May 12, 2001. Due to subsequent court actions, the status and effective date of the rule is unknown.)

1.5. PROPOSED ACTIONS - DECISIONS TO BE MADE

The Forest Service and BLM propose to make several decisions related to issuing new leases. This EIS summarizes alternative scenarios concerning oil and gas leasing on Los Padres National Forest. The Forest Service and BLM, Federal agencies that have separate responsibilities for lands within Los Padres National Forest, will make the following decisions and recommendations:

- 1. The Forest Supervisor of Los Padres National Forest will decide, within Los Padres National Forest which, if any, National Forest System lands not already withdrawn from mineral entry, with Federal mineral ownership and which non-Federal lands with Federal mineral ownership (split estate lands) are administratively available for oil and gas leasing and under what conditions (lease stipulations - Appendix B) (36 CFR 228.102 (d)).*
- 2. The Forest Supervisor will recommend leasing options to BLM for the non-federal lands with federal mineral ownership that are within the Forest boundary.*
- 3. The Forest Supervisor will decide what specific National Forest System lands the BLM will be authorized to offer for lease, subject to Forest Service stipulations to be attached to leases issued by the BLM (36 CFR 228.102 (e)).*
- 4. The Forest Service will amend, as necessary, the Los Padres Land and Resources Management Plan (Forest Plan) to incorporate the leasing decisions.*
- 5. Subsequently, the BLM will decide whether or not to offer leases for the specific lands authorized by the Forest Service.*

1.5.1. Need to Make These Decisions

The LPNF Forest Supervisor and BLM State Director need to make oil and gas leasing decisions in order to:

1. *implement authorities and responsibilities granted by the Federal Onshore Oil and Gas Leasing Reform Act;*
2. *comply with the Implementing Regulations 36 CFR 228;(see section 1.5.1.2 below)*
3. *address outstanding requests (applications) for leases that were submitted prior to the 1987 Reform Act.*
4. *generate information for making decisions regarding lands currently leased; and*
5. *address any additional current and future requests for leases.*

Each of these needs is discussed below.

1.5.1.1. Federal Onshore Oil and Gas Leasing Reform Act

In 1987, Congress passed the Federal Onshore Oil and Gas Leasing Reform Act (P.L. 100-203). The Leasing Reform Act made significant changes in the way leasing decisions are reached. The Act expanded the role of the Secretary of Agriculture in the leasing decision process.

1.5.1.2. Implementing Regulations 36 CFR 228

Section 228.102 (b) of the Code of Federal Regulations (CFR), Title 36 requires the Forest Supervisor to develop a schedule for conducting oil and gas leasing analysis and 228.102 (c) identifies the requirement of the analysis. The Forest Service has identified Los Padres National Forest as a high national priority for completion of this leasing analysis.

1.5.1.3. Outstanding Applications For Leases

Los Padres National Forest currently has a backlog of 26 oil and gas lease applications covering over 23,000 acres. The Forest needs to determine which of these lands are available for leasing, and which, if any, of the outstanding requests to authorize for leasing. Upon completion of this EIS and Record of Decision (ROD), a known geologic structure (KGS) determination would be made and then these lease requests will be acted upon.

1.5.1.4. Decisions For Lands Currently Leased

Currently, there are 22 existing oil and gas leases on Los Padres National Forest covering 14,618 acres. Current leased lands are included in the analysis so that when any existing lease terminates

the decision has been made whether or not to offer the land for lease again and the required lease stipulations will be known. It is possible that currently leased lands would not be available for lease or would be available with stipulations applied that are not in the current leases.

1.5.1.5. Additional Requests for Leases

The Forest Supervisor may receive additional requests for leases based on past experience and the potential for yielding oil and gas on Los Padres National Forest. Additional requests will be evaluated in the context of this EIS and Record of Decision (ROD).

1.5.2. What These Decisions Can and Cannot Do

The first decision will address whether lands are "available" or "not available" to lease, and if so with what stipulations. Once the decision is made regarding availability, then a decision is made whether to lease or not to lease those lands that were determined to be available. Graphically, the decisions look something like the process depicted in Figure 1-2 on the following page. The legal and regulatory authority of the Forest Service and the BLM limits the application of these decisions. These limits determine what the final decisions can and cannot do in several circumstances.

The decisions **CAN** determine the management of Federal lands. These decisions **CANNOT** be applied to non-Federal minerals owned by private, state, and/or local entities. Los Padres National Forest has private lands within its boundaries. In some cases the mineral rights on the private lands are in private ownership and in some cases they are owned by the federal government. Likewise some of the federal lands have federal mineral rights and some have private mineral rights. These decisions **ONLY** apply to Federal lands with Federal minerals. They can, however, be used as recommendations for other lands because the Forest Service can request reasonable stipulations be applied to Federal lands with non-Federal minerals. The surface ownership is displayed on the maps in the accompanying map packet.

The decision **CAN** result in limitations on the rights granted in future Federal leases. However, 14,618 acres are already leased and any new requirements must be consistent with the existing lease rights and applicable laws and regulations. Although existing lessees may be willing to voluntarily make changes, the leases they hold do not require them to do so.

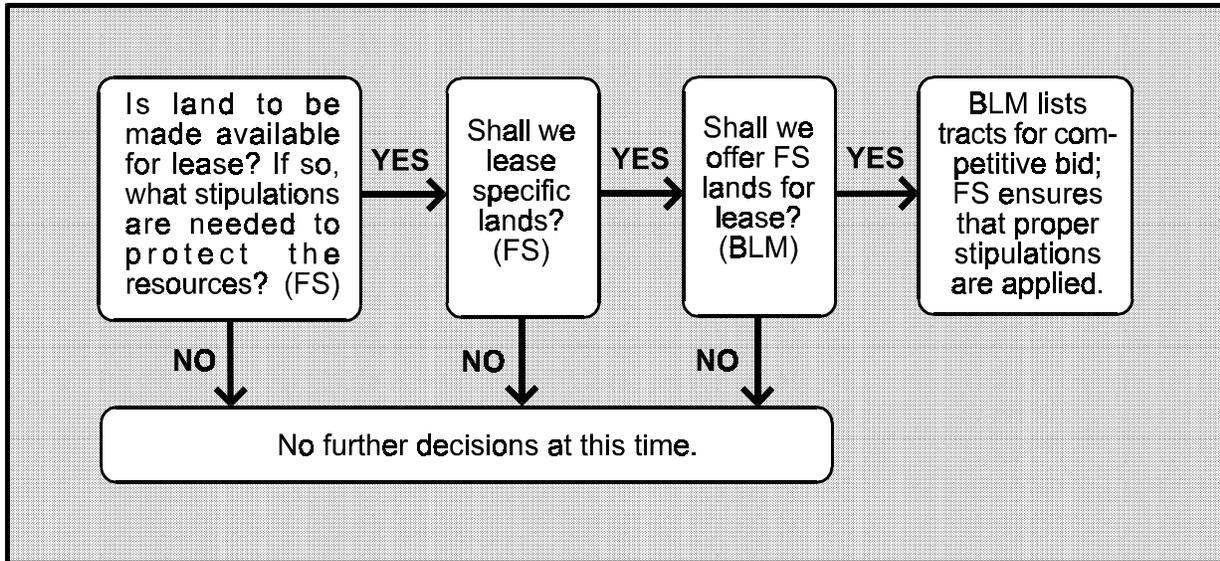


FIGURE 1-2: OIL AND GAS LEASING DECISION PROCESS

The decision **CAN** provide surface resource protection on Federal lands. It **CANNOT** preserve Federal or non-Federal oil and gas deposits for the future. Regardless of any decision made in this document, oil and gas operators could be able to access non-Federal deposits. In doing so, they may drain Federal deposits.

The leasing decision for specific lands made subsequent to this EIS shall remain in effect until significant new information or circumstances cause the existing environmental analysis to be out of date, at which time the BLM will be notified and the lands will be scheduled for a new leasing analysis.

A series of statutes including the Leasing Reform Act establishes and defines the authority of the Forest Service and BLM to make these decisions.

Issuance of a lease has been determined to constitute the point of "irreversible and irretrievable commitment of resources" that requires NEPA analysis and disclosure. This EIS is intended to provide that analysis for the lands within the study area. Any stipulations intended to mitigate effects on surface resources beyond that required by the standard lease terms must be attached to the lease at the time it is issued. A lease confers to the lessee the right to drill and operate somewhere on that lease. Consequently, the identification of stipulations in the determination of administratively available lands is of utmost importance in this EIS.

1.5.3. Scope of the Proposed Actions

The scope of the proposed actions being considered is both geographic and administrative as described below.

1.5.3.1. Geographic Scope

The geographic scope involves the lands directly and indirectly affected by the actions being considered.

1.5.3.1.1. Lands Involved In The Analysis

The area involved in this leasing analysis is all within Los Padres National Forest, located along the central California coast (Figure 1-1). It extends approximately 220 miles from the Point Sur area at its northwest corner to Lake Piru at its southeast end. Within its boundaries it contains 1,969,520 acres, of which 193,776 acres are privately owned. All National Forest System lands within the boundaries that are not withdrawn from mineral entry will be considered in this decision process. The areas withdrawn from mineral entry consist of all Wilderness areas, the Santa Ynez watershed, and the Big Sur Coastal Zone. All areas of LPNF are considered in the analysis of effects. The acres of the forest and withdrawn areas are shown in table 1-1 below.

TABLE 1-1: ACRES OF LPNF AVAILABLE FOR OIL & GAS LEASE CONSIDERATION

Area	National Forest System Land	Private Land Within LPNF Boundary	Total
<i>Within LPNF Boundary</i>	1,775,744	193,776	1,969,520
<i>Withdrawn Areas</i>			
<i>Coast Zone</i>	42,089	9,891	51,980
<i>Santa Ynez Watershed *</i>	152,228	10,184	162,412
<i>Wilderness Areas</i>	814,560	4,724	819,284
<i>Total Withdrawn Areas</i>	1,008,877	24,799	1,033,676
<i>Lease Study Area</i>	766,867	168,977	935,844

- *A portion of the Santa Ynez watershed withdrawal is included in the "Wilderness Areas" acres.*

Los Padres is the third-largest National Forest in California, and includes some of the wildest and most rugged land in the State. Elevations range from sea level on the Monterey coast to nearly 9,000 feet on Mt. Pinos. The Forest covers parts of six counties (Kern, Los Angeles, Monterey, San Luis Obispo, Santa Barbara and Ventura). It is divided into five ranger districts: Monterey, Santa Lucia, Santa Barbara, Mt. Pinos, and Ojai. The Forest contains nine Wilderness Areas (Ventana, Santa Lucia, Garcia, Machesna Mountain, San Rafael, Dick Smith, Matilija, Chumash and Sespe), which have been withdrawn from leasing. There are no leasing-related decisions to be made within Wilderness boundaries, although potential indirect effects on wilderness are considered in this EIS.

Nearby cities and towns include Monterey, Salinas, King City, Paso Robles, Atascadero, Morro Bay, San Luis Obispo, Arroyo Grande, Santa Maria, Solvang, Lompoc, Goleta, Santa Barbara, Montecito, Ventura, Ojai, Fillmore, Frazier Park and New Cuyama. Downtown Los Angeles is located about 40 miles from the southeastern portion of the Forest.

1.5.3.1.2. Lands Excluded From Decisions

Table 1-1 above displays the acreage of the lands that are and are not included in this decision process. All lands of LPNF are included in the effects analysis. The existing lease areas are included in the analysis process; however, the decisions cannot be implemented until production ends and the leases expire, terminate, or are relinquished.

Private lands within the LPNF boundary with privately owned mineral rights are not under the jurisdiction of the National Forest System. Development of minerals on or beneath such lands is conducted under the oversight of state and local jurisdictions.

1.5.3.2. *Administrative Scope*

The decisions to be made in this EIS are the five actions described earlier in this section, under *Proposed Actions - Decisions to be Made*. Once these decisions are made, no further NEPA analysis on these decisions will be needed as long as conditions remain essentially as described and analyzed in this EIS. The analysis of specific Federal minerals in the EIS includes all lands in the study area whether leased or not. The decision will include all land with Federal minerals, although the decision cannot be implemented on some lands until current leases expire, terminate, or are relinquished.

1.5.3.2.1. Connected and Cumulative Actions

The scope of this EIS includes the effects of connected actions and cumulative actions. Connected actions are those actions that are (1) closely related to the proposed action and automatically triggered by the proposed action, (2) cannot or will not proceed unless other actions are taken previously or simultaneously, or (3) are interdependent parts of a larger action and depend on the larger action for their justification (40 CFR 1508.25). Cumulative actions are actions that, when viewed with other past, present and reasonably foreseeable actions, (such as road building, wildlife improvements, etc.), may have cumulatively significant impacts. (40 CFR 1508.25).

The authorization of a lease grants rights to explore for and develop oil and gas within the terms and stipulations of the lease. The exercise of these rights results in implementation of connected actions. However, lease authorization implies that oil and gas development may take place at a future time with identified restrictions. The regulations, 36 CFR 228.102 (c)(4), direct the Forest Service to consider the subsequent actions that would be authorized by a lease as connected actions, associated with review and approval of the APD and other associated plans of operation. These actions also meet the definition of connected actions in the procedural requirements for the NEPA (40 CFR 1502).

These expected actions are the basis of the environmental analysis from which the leasing decisions will be made. The decision on the lands that will be administratively available, and the subsequent decision authorizing leases, are based upon analysis of the likely environmental effects of the connected actions.

Connected actions are being considered under each alternative in this EIS. In this context, connected actions include the post-leasing approval of Surface Use Plans of Operation, and issuance of Rights-of-Way authorizations for off-lease activities needed to support oil and gas exploration, development, and production on lease. These actions may authorize or result in other activities such as drilling, construction of production facilities, roads and pipelines as discussed in Appendices D and E.

As discussed in section 1.7 on the Federal management of oil and gas activities later in this chapter, there are three stages in the process that require additional permitting for actions related to oil and gas leasing. These include the issuance of permits for exploratory drilling and field development. The process for issuance of these site-specific permits requires completion of additional NEPA analyses. The NEPA analysis required would complement the analysis presented in this document. The analysis summarized in this EIS is key to determining which lands would be administratively available and under which stipulations, including determining those specific parcels that would be designated with a stipulation for No Surface Occupancy (NSO).

1.5.3.2.2. Forest Plan Context

Management of each administrative unit of the National Forest System is governed by a Land and Resource Management Plan (Forest Plan). Most of the existing Forest Plans include general decisions, as part of management prescriptions, to provide for oil and gas leasing, but do not include decisions for leasing specific lands. Prior to the passage of the Leasing Reform Act and except for acquired lands, the Forest Service had no authority to make decisions related to issuing or not issuing oil and gas leases on National Forest System lands. Recommendations were given to BLM and BLM had the decision authority. Most of the Forest Plan NEPA analyses, which predate the Leasing Reform Act, do not fully meet the intent of the regulations to make site-specific leasing decisions. This analysis process is discussed in more detail in Appendix A. Decisions the Forest Supervisor will make, including availability, will be used to develop an amendment to the Forest Plan (refer to Forest Manuals and Handbooks for Plan Amendment Process).

1.6. *REASONABLE FORESEEABLE DEVELOPMENT (RFD) SCENARIO*

In order to analyze the environmental effects that could occur as a result of alternative leasing decisions under each of several leasing scenarios, hypothetical projections of the kind and amount of activity that could be reasonably anticipated were made. The regulations, in 36 CFR 228.102 (c) (3 and 4), require the Forest Service to “project the type / amount of post-leasing activity that is reasonably foreseeable as a consequence of conducting a leasing program consistent with that described for each alternative and analyze the reasonable foreseeable impacts of post-leasing activity under (c)(3) of this section as a part of the analysis. This is the hypothetical projected

activity that would be expected to be generated if each alternative were implemented. These are the activities that would generate physical / biological and social / economic effects.

The Reasonable Foreseeable Development Scenario (RFD) for oil and gas development on LPNF was developed using historical oil and gas development information, geologic information and interpretation, and projected market trends. It must be recognized that future exploration and development may not occur as predicted in the RFD and that the RFD only provides a reasonable basis for analyzing potential subsequent activities and their effects (refer to Appendix D for a summary discussion and presentation of the RFD).

Oil and gas specialists from LPNF and the BLM Bakersfield office and a consultant team of interdisciplinary oil & gas specialists used a 1993 report by Forest Service Petroleum Engineer Desmond Bain in development of projections of how much oil and gas activities are most likely to take place on the Forest within High Oil and Gas Potential Areas (HOGPA's). The HOGPA's were identified from analysis of existing geologic data. Some of the new wells forecast in the RFD will occur on lands currently leased or leases held by production. Producing wells continue to hold these leases in place until production ceases.

The results of the RFD analysis are presented in Chapter 2 for each alternative considered in detail. See Appendix D for additional details regarding the RFD.

1.7. FEDERAL MANAGEMENT OF LEASES AND DEVELOPMENT

This section summarizes more detailed information contained in Appendices A and B of this EIS. The BLM is responsible for issuing oil and gas leases on Federal lands and on private lands for which the Federal government retains mineral rights. The BLM cannot issue leases for lands administered by the Forest Service without consent from the Secretary of Agriculture. The Mineral Leasing Act of 1920, as amended, and the Mineral Leasing Act of 1947 for acquired lands provide the legislative authority for Federal oil and gas leasing. Title 43 CFR 3100 provides the regulatory basis for BLM to administer Federal oil and gas leasing. Title 36CFR, Subpart E, provides direction to the Forest Service to administer and regulate surface uses and leases on National Forest System lands.

In areas where exploration and development of oil and gas resources would conflict with the protection or management of other resources or public land uses, the NEPA process identifies measures to mitigate impacts. These mitigation measures are usually applied as lease stipulations, which restrict how operations are conducted or where they can be located.

1.7.1. Lease Types

Competitive and noncompetitive leases may be obtained for oil and gas exploration and development on lands owned or controlled by the Federal government. The Leasing Reform Act of 1987 requires that all public lands available for oil and gas leasing be offered first by competitive leasing at an oral auction. Noncompetitive oil and gas leases may be issued only after no

competitive bids have been received for public lands. Competitive and noncompetitive leases are issued for a period of ten years. Both types of leases remain in effect for the period oil and gas are commercially produced. The maximum competitive lease sizes are 2,560 acres in the lower 48 states and 5,760 acres in Alaska. The maximum noncompetitive lease size is 10,240 acres in all states. Refer to Appendix A for a more detailed discussion of the competitive and noncompetitive leasing process.

1.7.2. Lease Restrictions

Lease restrictions provide a means to mitigate potentially significant impacts. These restrictions take the form of either Standard Lease Terms or Special Lease Stipulations as described below:

1.7.2.1. Standard Lease Terms and Conditions (SLT's)

The standard lease terms are contained in BLM Lease Form 3100-11, *Offer to Lease and Lease for Oil and Gas* (Appendix B). As a minimum, all leases must contain standard lease terms. Under the standard lease terms, the lessee has the right to use as much of the leased lands as is necessary to explore or drill for, extract, remove, and dispose of oil and gas deposits that may be in the leased lands, together with the right to build and maintain necessary improvements thereon. Section 6 of the standard lease form requires the operator to conduct operations in a manner that minimizes adverse impacts to surface resources and other land uses. The Federal lessor has the authority to require modifications in the siting and design of facilities, control the rate of development and the timing of activities as well as to require other mitigation measures to protect threatened, endangered, proposed, and sensitive species, or objects of historic or scientific interest. The lessor can also require relocation of proposed operations by up to 200 meters, and impose timing limitations of up to 60 days, as well as other mitigation described in Appendix B.

1.7.2.2. Supplemental Stipulations

Forest Plan standards and guides will be adhered to during implementation of all of the alternatives. To the extent an alternative is not consistent with the Forest Plan it will require a Forest Plan amendment to implement. Mitigation is employed in three major areas. First, as noted above, standard lease terms of BLM Lease Form 3100-11 (Appendix B), 43 CFR 3100, and 36 CFR 228E, contain basic mitigation measures to protect the environment. Second, at the lease-issuance stage, special stipulations may be added to protect specific resource values. These stipulations are provisions that modify standard lease terms and are attached to and made a part of the lease. Special, geographically locatable stipulations to mitigate potentially significant impacts is a major topic of this EIS. The categories of lease stipulations addressed in this EIS include:

- *No Surface Occupancy (NSO)*
- *Limited Surface Use (LSU) and*
- *Timing Limitation (TL).*

Each of these stipulation categories is discussed further below.

Finally, at the APD stage, additional site-specific mitigation measures may be required or incorporated through negotiations with the applicant to protect site-specific resources identified. Additional mitigation measures may be required or negotiated at the APD stage as a result of on-the-ground examination and NEPA analysis. Conditions of Approval (COA) can be required if they are within the terms of the lease and negotiated if they are outside the terms of the lease. These are determined on a site-specific, case-by-case basis. Any post-lease mitigation applied may not change the intent or terms of the lease or impose undue constraint upon the operator.

1.7.2.2.1. No Surface Occupancy (NSO)

This stipulation is intended for use only when other stipulations are determined to be insufficient to adequately protect the resource values. NSO is not needed if the desired protection could be accomplished by relocating proposed operations 200 meters or less as allowed under Standard Lease Terms (43 CFR 3101.1-2). Generally, the Forest Plan Management Standards will preclude access and construction of other resource facilities in areas that require an NSO stipulation. An example of NSO might be no surface occupancy on slopes over 40 percent.

1.7.2.2.2. Limited Surface Use (LSU)

The LSU stipulation is intended to be used when surface occupancy and use are allowed on all or portions of the lease area year-round, but because of special resource concerns or values, lease activities must be strictly controlled. It would be used in areas where restrictions or controls are necessary for specific types of activities rather than all activities, and applies to development as well as production phases. An example of LSU would be: in areas that are designated Visual Quality Objective “retention” or “partial retention,” to require facilities and operations to be painted or screened by natural features to meet the scenic objectives.

1.7.2.2.3. Timing Limitation (TL)

Standard Lease Terms allow for prohibition of new surface-disturbing operations for periods of up to 60 days. The TL stipulation limits surface use and occupancy for oil and gas exploration and development activities for a period of time greater than 60 days and applies to all on-lease drilling and construction-related activities. It is intended to provide additional protection in areas that may have important seasonal use, such as raptor nest sites and recreation use areas. An example of a TL would be: prohibition of activities during a species’ mating season (if longer than 60 days).

1.7.3. Staged Decision Process

Following are descriptions of the various stages of oil and gas leasing on National Forest system lands.

1.7.3.1. Lands Available for Lease Decision (36 CFR 228.102(d))

The decision regarding lands available for leasing is based on disclosure and analysis provided in a "Leasing Analysis." This EIS is prepared to satisfy the requirements of NEPA for the Leasing Analysis. The decision will identify which, if any, lands will be available for leasing. The Forest Plan will be amended, if necessary, at the same time so that the decisions made on the basis of this EIS will be consistent with the Forest Plan.

The Forest Supervisor will decide which lands to make available for leasing, and what stipulations to apply should those lands be leased. The decision to lease or not lease land areas will be made. When making the land availability decision, the Forest Supervisor will look at all legally available land. The time period the decision will be in effect, and processes for review, revision, implementation, and monitoring will be identified.

The decision to make land available for leasing is based on knowledge of the lands and natural resources and knowledge of the standard lease terms and stipulations necessary to protect those lands and resources. This information was reviewed to determine whether or not any given area could be authorized for lease. The RFD projected activities were used to determine the direct, indirect, and cumulative effects of leasing, and to determine how much, and where, land could be leased should leasing occur.

1.7.3.2. Leasing Decisions for Specific Lands (36 CFR 228.102(e))

The Leasing Reform Act also provides for consent by the Forest Service for the issuance of oil and gas leases for specific lands. The regulations implementing the Leasing Reform Act require the following before consent can be given for leases to be issued by the BLM:

- *Verifying that oil and gas leasing on the specific lands has been adequately addressed in a NEPA document, and is consistent with the Forest Plan;*
- *Ensuring that conditions of surface occupancy identified in section 228.102(c)(1) are properly included as stipulations in resulting leases; and*
- *Determining that operations and development could be allowed somewhere on each proposed lease, except where stipulations would prohibit all surface occupancy*

The decision to authorize lands for leasing makes an initial commitment of public resources to a potential lessee. When a lease is purchased, the lessee receives the exclusive right to apply for an Application for Permit to drill (APD) for oil and gas on the lease parcel. The authorization decision will be made on the basis of knowledge of the possible environmental effects prepared as part of the availability analysis, and the ability of the Forest Supervisor to "verify that oil and gas leasing on the specific lands has been adequately addressed according to the requirements of the National Environmental Policy Act, that conditions of surface occupancy identified in section 228.102 (c) (1) are properly included as stipulations in the leases," and that "operations

and development could be allowed somewhere on each proposed lease, except where stipulations will prohibit all surface occupancy.”

The authorization decision will go through a validation process prior to the specific authorization given to the BLM to advertise a lease for sale. This process will include map and on-the-ground field reviews to insure consistency with the information disclosed in this document, certification that NEPA requirements have been met and that the parcel can be occupied, and that identified stipulations are part of the proposed lease documents. If any of the validation results are unsatisfactory, the consent will be denied or supplemental NEPA analysis will be completed.

1.7.3.3. Surface Use Plan of Operations (SUPO) and Application for Permit to Drill (APD)

This EIS and associated Record of Decision do not authorize any ground-disturbing activities. Site-specific exploration information is not known until a proposal for development is provided by a lessee. Therefore, the Forest Service cannot at this time conduct a NEPA analysis with sufficient site specificity to make decisions regarding specific operations on a leasehold.

When a lessee decides to develop a lease parcel, they must submit a specific Surface Use Plan of Operations (SUPO) included as part of their Application for Permit to Drill (APD). Approval or disapproval of the SUPO is based on additional environmental analysis and published in a decision document subject to administrative appeal. Even though the RFD has identified the reasonable level of development to be expected, this is the first time that the specific location and extent of ground-disturbing activities is known. The Forest Service will analyze environmental effects of the proposed operations and issue a decision document. The Forest Service decision to approve or not approve the SUPO is then forwarded to the BLM. The BLM will then process the APD subject to Forest Service conditions of approval (COAs) attached to the SUPO.

1.7.3.4. Amendment to An APD

If modifications or changes in the APD are needed, based on drilling conditions encountered or some other unforeseen circumstance, the operator submits a Sundry Notice to the BLM for review and approval. If the change involves additional surface disturbance or potential affects on surface resources, a copy is forwarded to the Forest Service for approval or comment. Depending on the extent and nature of the change, additional NEPA analysis may be necessary.

1.7.3.5. Field Development Plan

If economically recoverable quantities of oil and gas resources are found through exploratory drilling, the lessee may submit a field development plan after evaluation of the discovery well and available geologic information. The Forest Service, in cooperation with the BLM, would analyze the predicted environmental effects associated with the proposed field development and identify reasonable and necessary mitigation measures. Specific well sites and access routes may not be

known at the time the field development plan is analyzed, in which case additional NEPA analysis tiered to the field development plan may be necessary once a specific well is proposed.

1.7.4. Bonding

The lessee, or the lessee's operator, must furnish a lease bond of at least \$10,000 before beginning any surface-disturbing activities related to drilling. In lieu of individual lease bonds, lessees, owners of operating rights (sub-lessee), or operators may furnish a bond in an amount of not less than \$25,000 covering all leases and operations in any one State or a bond in the amount not less than \$150,000 covering all leases and operations nationwide.

The bond is intended to ensure compliance with all lease terms, including protection of the environment. The BLM may increase the bond amount any time conditions warrant such an increase, or the Forest Service can require additional bonding under 36 CFR 228.109.

1.7.5. Rentals and Royalties

In the first five years of the lease, annual rental rates for competitive and noncompetitive leases are \$1.50 per acre or fraction of the acre. After the first five years, annual rental rates increase to \$2.00 per acre. The royalty standard rate on production is 12.5% for competitive and noncompetitive leases.

1.7.6. Expiration or Termination of a Lease

Oil and gas leases expire at the end of their term. A term is ten years for competitive and noncompetitive leases, but leases may be extended (not to exceed two years) beyond their primary term for diligent drilling operations across the end of the ten-year primary term. Leases that produce paying quantities of oil or gas do not expire until production ends.

Leases without producing wells automatically terminate if the lessee fails to make full and timely payment of the annual rental. The rental must be received by the Federal government on or before the anniversary date of the lease.

The owner of a lease also may relinquish the lease in whole or in part by filing a written relinquishment with the BLM State Office having jurisdiction over the leased Federal lands. A relinquishment takes effect on the date it is filed. The lessee is responsible for plugging any abandoned wells. The lessee also is responsible for other work required by the Forest Service and BLM to place the leasehold in proper condition for abandonment and bring the lease account into good standing. If the lessee fails to perform the required abandonment work, the bond will be used to pay for the costs of abandonment, and the lessee will be prohibited from leasing any additional Federal lands.

A more detailed description of oil and gas activity is included in Appendix C.

1.8. THE ANALYSIS PROCESS

The land availability decision, the decision to authorize lands for leasing, and the decision to amend the Forest Plan to accommodate these leasing decisions are separate, sequential decisions, but they are based on one analytical process. A brief explanation of this analysis process is presented below.

The Forest Supervisor's three decisions must be based on knowledge and consideration of the effects oil and gas leasing could have on the lands and the natural resources of the Forest, the ways in which those effects might be mitigated, and the ability to satisfactorily mitigate those effects.

To develop this knowledge and make these determinations, the forest and consultant interdisciplinary (ID) team first analyzed maps of Forest surface features and resources contained in the LPNF Geographical Information System (GIS) database.

The team compared the maps of surface features of the Forest with their knowledge of the effects of oil and gas drilling, development and production from other parts of the Forest or vicinity. That is, the team used information from past oil and gas activity to estimate what the environmental impacts of the RFD-projected post leasing activities would be if they occurred at various locations on LPNF. These individual analyses are documented in a series of technical background reports included in the administrative record of this EIS.

The probable effects on Forest lands and resources were then compared with knowledge of the mitigation available through application of the standard lease terms and supplemental stipulations. The ID team then made a series of determinations for each alternative about which environmental effects could be satisfactorily mitigated through use of SLTs and supplemental stipulations. The team also decided which effects could not be mitigated under any circumstance. The overall environmental effects of each alternative were compared through an analysis based on the level of development predicted by the RFD. These effects are discussed in Chapter 4 of this EIS.