

# Memorandum

To: Energy Commission Docket Unit

Date: September 19, 2012

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From : **California Energy Commission**  
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Subject: Transmittal of the following documents for: HECA 08-AFC-8A

Attached, is a CD-Rom containing three documents related to the Environmental Impact Reports associated with the sale of the Naval Petroleum Reserve No. 1 at Elk Hills.

1. Draft Supplemental Environmental Impact Statement/Program Environmental Impact Report for the Sale of NPR-1; Sale of Naval Petroleum Reserve No. 1 (Elk Hills) Kern County, California DOE/SEIS/PEIR-0158-S, July 1997
2. Final Supplemental Environmental Impact Statement/Program Environmental Interim Report for the Sale of Naval Petroleum Reserve No. 1 (Elk Hills) Kern County, California DOE/SEIS/PEIR-0158-S2, October 1997
3. Final Supplemental Environmental Impact Statement/Program Environmental Impact Report for the Sale of NPR-1; Sale of Naval Petroleum Reserve No. 1 (Elk Hills) Kern County, California DOE/SEIS/PEIR-0158-S2, October 1997 Volume II.

The entire electronic PDF version of the document is available at the Energy Commission webpage:

[http://www.energy.ca.gov/sitingcases/hydrogen\\_energy/documents/index.html](http://www.energy.ca.gov/sitingcases/hydrogen_energy/documents/index.html)

Copies of the entire document on a CD-Rom are available from the Energy Commission Docket Unit upon request.

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# **Final Supplemental Environmental Impact Statement/Program Environmental Interim Report for the Sale of the Naval Petroleum Reserve No. 1 at Elk Hills, CA**

**Lead Federal Agency:** U.S. Department of Energy  
Washington, DC

**Lead State Agency:** County of Kern  
Bakersfield, California

**Proposed Action:** Sale of Naval Petroleum Reserve Number 1 (Elk Hills)  
Amendment of Kern County General Plan  
Kern County, California  
DOE/SEIS/PEIR-0158-S2

**Location:** The proposed site is located in Kern County, California, about 25 miles southwest of the City of Bakersfield and approximately 100 miles north of Los Angeles, in a predominantly rural area.

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**Abstract:** The Proposed Action is the sale of all right, title and interest of the United States in Naval Petroleum Reserve Number 1 (NPR-1) in accordance with the National Defense Authorization Act for Fiscal Year 1996 (Public Law 104-106). The Proposed Action is also DOE's Preferred Alternative. DOE has determined that the sale of NPR-1 as required by Public Law 104-106 constitutes a major Federal action which may have a significant impact upon the environment within the meaning of the National

Environmental Policy Act of 1969 (NEPA) and Kern County has determined that the sale could have a significant effect on the environment under the California Environmental Quality Act of 1970 (CEQA). Significant impacts may occur because private-sector operation of the NPR-1 oil field could result in accelerated levels of development and different types of activities than under continued government ownership. This SEIS/PEIR assesses the potential environmental impacts from the Proposed Action, a No Action Alternative under which NPR-1 would continue to be operated by DOE, and an Alternative to the Proposed Action under which some form of government control would be maintained.

This document assesses the environmental impacts on: geology and soils;hazardous materials and waste management; air; water; biology; cultural and historical resources; land use; noise; socioeconomics; risk assessment; energy conservation; and environmental justice.

Pursuant to §1503.4(c) of the CEQ NEPA regulations, DOE is not revising and recirculating the full text of the DSEIS/PEIR as a FSEIS/PEIR. CEQA does not require the recirculation of the DPEIR.

**Document  
Date:**

October 1997

**Public  
Comments:**

In preparing the Draft SEIS/PEIR, DOE and Kern County considered both written comments submitted during the scoping period and oral comments received at the public scoping sessions on April 16, 1996.

The period for submission of public comments on the Draft SEIS/PEIR was 45days from July 27, 1997, until September 8, 1997. Public hearings were held on the Draft SEIS/PEIR on August 26, 1997. In preparing the Final SEIS/PEIR, DOE and Kern County considered all public comments received, including comments received after September 8, 1997, as well as the oral comments made during the public hearings.

**No Action  
Period:**

No action will be taken with respect to the alternatives described in this document until the Record of Decision is published in the Federal Register,which can occur no earlier than 30 days after the Environmental Protection Agency's Notice of Availability of this Final SEIS/PEIR document appears in theFederal Register.





# NPR-EIS Acronyms

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μG/m <sup>3</sup>	Microgram per cubic meter
AAQS	Ambient Air Quality Standards
ACE	Army Corps of Engineers
ACHP	Advisory Council on Historic Preservation
AML	Above Mean Sea Level
ANSI	American National Standards Institute
API	American Petroleum Institute
ARPA	Archaeological Resources Protection Act
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ATC	Authority to Construct
BACT	Best Available Control Technology
Bcf	Billions of cubic feet
BLM	Bureau of Land Management
BLS	Bureau of Labor Statistics
BO	Biological Opinion
BOE	Barrel of Oil Equivalent
BP	Years Before Present (used in archaeological dating, instead of BC and AD)
BPD	Barrels per Day
BPOI	Bechtel Petroleum Operations, Inc.
CA	California
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
Cal-OSHA	California Occupational Safety and Health Administration
CCCOGP	Conservation Committee of California Oil & Gas Producers
CCP	Corrosion Control Program
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDMG	California Division of Mines and Geology
CEC	California Energy Commission
CEPA	California Environmental Protection Agency
CEQ	Council on Environmental Quality

CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH <sub>4</sub>	Methane
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide
COE	Corps of Engineers
COH	Coefficient of Haze
CRWQCB	California Regional Water Quality Control Board
CUSA	Chevron U.S.A.
CWA	Clean Water Act
DGZ	Dry Gas Zone
DOE	United States Department of Energy
DOGGR	California Division of Oil, Gas and Geothermal Resources
DOI	Department of the Interior
DSEIS/PEIR	Draft Supplemental Environmental Impact Report/Program Environmental Impact Report
DTSC	Division of Toxic Substances Control (Cal-EPA)
EA	Environmental Assessment
EPA	United States Environmental Protection Agency
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EO	Executive Order
EOR	Enhanced Oil Recovery
ERCs	Emission Reduction Credits
ESD	Environmental Services Department at NPR-1
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FRP	Facility Response Plan
FSEIS/PEIR	Final Supplemental Environmental Impact Report/Program Environmental Impact Report
FWS	Department of the Interior Fish and Wildlife Service
FY	Fiscal Year
GIS	Geographical Information System
HAPs	Hazardous Air Pollutants
HC	Hydrocarbons
HDDT	Heavy Duty Diesel Truck
HGOR	High Gas to Oil Ratio

H <sub>2</sub> S	Hydrogen Sulfide
IC	Internal Combustion
Inc.	Incorporated
I-O	Input-Output
ISC3ST	Industrial Source Complex Short Term - version
KCAPCD	Kern County Air Pollution Control District
KCDEHS	Kern County Department of Environmental Health Services
KCWA	Kern County Water Agency
L <sub>dn</sub>	day-night sound level
LACT	Lease Automatic Custody Transfer Meter
LAER	Lowest Achievable Emission Rate
LPG	Liquefied Petroleum Gas
LRP	Long Range Plan
LTS	Low Temperature Separation
MAOP	Maximum Allowable Operating Pressure
MBB	Main Body B Reservoir
MBD	Thousands of Barrels per day
MMBOE	Millions of Barrels of Oil Equivalent
MCFD	Thousands of Cubic Feet per day
MED	Maximum Economic Development
MER	Maximum Efficient Rate
MMB	Million Barrels
MMBO	Million Barrels of Oil
MMCF	Million Cubic Feet
MMCFD	Million Cubic Feet Per Day
MMG	Million Gallons
MSDS	Material Safety Data Sheet
NAAQS	National Ambient Air Quality Standards
NACE	National Association of Corrosion Engineers
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
Neph	Nephelometer
NFPA	National Fire Protection Academy
NGL	Natural Gas Liquid Products
NHPA	National Historic Preservation Act
NO <sub>3</sub>	Nitrate
NO <sub>x</sub>	Nitrogen Oxides
NOP	Notice of Preparation

NORM	Naturally Occurring Radioactive Materials
NOSR	Naval Oil Shale Reserves
NPDES	National Pollutant Discharge Elimination System
NPR-1	Naval Petroleum Reserve Number 1
NPR-2	Naval Petroleum Reserve Number 2
NPRC	Naval Petroleum Reserves California
NPV	Net Present Value
NRC	National Response Center
NRHP	National Register of Historic Places
NSR	New Source Review
O <sub>3</sub>	Ozone
OCS	Outer Continental Shelf
OES	Office of Emergency Services (Kern County)
O&M	Operations and Maintenance
OPA	Oil Pollution Act
OSCP	Oil Spill Contingency Plan
OSHA	Occupational Safety and Health Administration
PAH	Poly Aromatic Hydrocarbons
Pb	Lead
PCB	Polychlorinated Biphenyls
PG&E	Pacific Gas and Electric Company
PM <sub>2.5</sub>	Particulate Matter (2.5 microns smaller
PM <sub>10</sub>	Particulate Matter (10 microns or smaller
PPM	Parts per Million
PSD	Prevention of Significant Deterioration
PTO	Permit to Operate
RCRA	Resource Conservation and Recovery Act
RIMS	Regional Input-Output (I-O) Modeling System
ROG	Reactive Organic Gases
SARA	Superfund Amendments and Reauthorization Act
SCAQMD	South Coast Air Quality Management District
SCS	Soil Conservation Service
SEIS/PEIR	Supplemental Environmental Impact Statement/Program Environmental Impact Report
SHPO	State Historic Preservation Officer
SIPs	State Implementation Plans
SJVAB	San Joaquin Valley Air Basin
SJVUAPCD	San Joaquin Valley Unified Air Pollution Control District
SPCC	Spill Prevention Control and Countermeasures

SO <sub>2</sub>	Sulfur Dioxide
SO <sub>4</sub>	Sulfate
SO <sub>x</sub>	Sulfur Oxides
SOZ	Shallow Oil Zone
SPCC	Spill Prevention, Control and Countermeasure
TDS	Total Dissolved Solids
THC	Total Hydrocarbons
TRI	Toxic Release Inventory
TSCA	Toxic Substances Control Act
TSP	Total Suspended Particulates
UIC	Underground Injection Control
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
USLE	Universal Soil Loss Equation
VFHCP	Kern County Valley Floor Habitat Conservation Plan
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
WKWD	West Kern Water District







# CHAPTER 1

## Introduction

Since the publication of the DSEIS/PEIR in July 1997, several events have occurred in the NPR-1 sales process. This chapter provides an update of those major events and explains their relevance to the NEPA process. Also contained in this chapter are the eight Major Issues that were identified through the public comment process. The comments related to each of the Major Issues are summarized within a "box." A discussion and response to each of these issues follows immediately after each box.

### **Status of Sales Process for NPR-1**

The National Defense Authorization Act for Fiscal Year 1996 (P.L. 104-106) was signed by the President on February 10, 1996. Section 3412 of the Act directed the Secretary of Energy to enter into a process that would result in the sale of NPR-1 by February 10, 1998, unless the Secretary advised Congress that another course of action would be "in the best interest of the United States." The Act further directed that the sales process should be conducted "*...in a manner consistent with commercial practices and in a manner that maximizes sale proceeds to the Government...*" The "commercial" sales process began on May 21, 1997, and ended on October 1, 1997, with the submission of bids by prospective purchasers.

In order to comply with the DOE's statutory obligation under P.L. 104-106, DOE implemented a sales strategy designed to maximize the proceeds to the Federal government. However, in order to comply with DOE's further obligations under NEPA to consider appropriate mitigation measures for adverse environmental impacts, DOE structured the sales process to incorporate mitigation in a manner which does not impair the ability of DOE to maximize the proceeds from the sale of NPR-1. Specifically:

1. DOE offered to transfer the Biological Opinion (and incidental take permit) issued by the U.S. Fish and Wildlife Service to the purchaser(s) of NPR-1. If accepted, the purchaser(s) would be legally bound by all terms, conditions and mitigation measures presently employed by DOE;
2. The purchaser(s) were asked to identify additional mitigation measures (contained in the DSEIS/PEIR) to which they would be willing to commit, to the extent that such commitment would not cause them to reduce the amount of their bid(s); and
3. The draft Purchase and Sale Agreement for NPR-1 contained an optional provision that would guarantee small and independent refiners in the region continued access to NPR-1 crude oil for a period of three years following the sale.

At the start of the sales process, prospective purchasers were notified that, even after bids are submitted and a "highest offer" is identified, DOE could not enter into a sales contract until:

1. the NEPA process is completed and DOE publishes a Record of Decision;
2. the Justice Department completes an antitrust review of the terms of sale; and
3. a 31-day Congressional review period expires with no adverse Congressional action.

On October 6, 1997, DOE identified Occidental Petroleum Corp. ( Occidental )as the firm submitting the "highest offer" for the purchase of NPR-1. However, because of the requirements in P.L. 104-106 for Congressional review and DOE's obligations under other Federal statutes, DOE did not sign a sales contract at that time. Rather, a Grant of Option Agreement was executed establishing an irrevocable offer by Occidental to purchase NPR-1 and an agreement by DOE that it would not sell NPR-1 to any other potential purchaser until the expiration of the Option Agreement. By signing the Grant of Option Agreement, DOE also agreed that it would sign the sales contract promptly after expiration of the 31-day Congressional review period:

*"...provided that...the environmental review process under NEPA regarding the proposed sale...has been completed and Owner [DOE] has determined that no additional environmental mitigation measures are required to be incorporated into the Purchase Agreement as a result of such environmental review..."*

The conditional results of the sales process as it relates to these mitigation measures is discussed in the responses to the Major Issues. In most instances throughout this document, discussions of the mitigation measures continue to be conditional, since DOE cannot take final action on any aspects of the sale until completion of the NEPA process, the Justice Department review, and the 31-day Congressional review.

## **Major Issues**

Public comments on the DSEIS/PEIR raised eight topics of broad concern that are described in text boxes in this chapter. These topics, categorized as "Major Issues" and responded to in this chapter, are:

- 1.1 DOE's Preferred Alternative
- 1.2 Relationship of DSEIS/PEIR Alternatives to the Biological Opinion.
- 1.3 Need for Reconsultation under the Existing Biological Opinion.
- 1.4 Loss of Affirmative Federal Obligation to Protect Threatened and Endangered Species.
- 1.5 Native American Cultural Resources and Values.
- 1.6 Mitigation Implementation Process
  - 1.6.1 Implementation through the Sales Contract
  - 1.6.2 Implementation through Other Permitting Processes
  - 1.6.3 Sufficiency of Information for Mitigation
- 1.7 Socioeconomics
  - 1.7.1 Scope of the Socioeconomic Analysis
  - 1.7.2 Continued Access to NPR-1 Crude Oil
- 1.8 Future Uses of the NPR-1 Property after the Completion of Oil and Gas Activities





## 1.1. DOE's Preferred Alternative

Although DOE did not identify a Preferred Alternative in the DSEIS/PEIR, many comments appeared to be based on the assumption that the Proposed Action would become the Preferred Alternative. These commenters pointed out that the Proposed Action was not the least environmentally damaging alternative and claimed that many of the impacts to biological resources that would result from the Proposed Action could not be mitigated to a level that would be less than significant. These commenters suggested that DOE should choose its Preferred Alternative based on minimizing environmental impact. Generally, commenters supported an alternative that maintained some form of Government ownership or management of surface rights.

The DOE preferred alternative is the Proposed Action: the sale of all right, title, and interest of the United States in NPR-1 to one or more entities by February 10, 1998, as required by the National Defense Authorization Act for Fiscal Year 1996 (P.L. 104-106). On October 6, 1997, DOE announced that Occidental Petroleum Corp. ( Occidental ) had submitted the highest bid for the purchase of NPR-1. Therefore, pending completion of the NEPA process, the Justice Department review, and the 31-day Congressional review period, the Preferred Alternative would result in the sale of NPR-1 to Occidental by February 10, 1998.

P.L. 104-106 requires any sale to be conducted in a manner consistent with commercial practices and in a manner that maximizes the proceeds to the Federal government. The Proposed Action is the only alternative that meets this Congressional direction and, therefore, DOE has selected it as its Preferred Alternative. Chapter 4 of this document contains the detailed revisions to Chapters 1 and 2 of the DSEIS/PEIR to identify the Proposed Action as the Preferred Alternative.

DOE recognizes, and the DSEIS/PEIR indicates, that its Preferred Alternative does not result in the least environmental impacts when compared to the other alternatives analyzed in detail in the DSEIS/PEIR. The alternative with the least environmental impacts is the No Action Alternative: continued government ownership and operation. However, this alternative would not be in compliance with the statutory direction contained in P.L. 104-106. The alternative resulting in the least environmental impacts while still achieving the overall intention of P.L. 104-106 (removing the Federal government from the operation of commercial oil fields) is the Alternative to the Proposed Action: commercial development of the mineral resources with retention of government ownership of the surface rights. This alternative would result in slightly higher environmental impacts than the No Action Alternative because of the higher levels of projected oil and gas production due to commercial development.

In order to comply with the Congressional direction in P.L. 104-106, DOE implemented a sales strategy designed to maximize the proceeds to the Federal government. In compliance with DOE's obligations under NEPA to consider appropriate mitigation measures for adverse environmental impacts, DOE structured the sales process to incorporate mitigation in a manner which does not impair the ability of DOE to maximize the proceeds from the sale of NPR-1. The process of incorporating mitigation into the sales process is discussed in Major Issue 1.6.

The commenters who contended that the significant impacts to biological resources resulting from the Proposed Action could not be mitigated to less than significant did not present information to support this claim. Furthermore, as part of its offer to purchase NPR-1, Occidental has agreed to accept the 1995 Biological Opinion (see more detailed discussion in Major Issues 1.2 and 1.6.1) and to identify and implement additional mitigation measures after consulting with the U.S. Fish and Wildlife Service (FWS) and the California Department of Fish and Game (CDFG). DOE and Kern County believe that these actions, coupled with the corresponding rigorous enforcement by the relevant state and Federal regulatory agencies, will ensure that these impacts are mitigated to less than significant. Therefore, DOE and Kern County have not changed the DSEIS/PEIR's general conclusion that the significant impacts of the proposed action can - and are likely to be - mitigated to less than significant.





## 1.2. Relationship of the DSEIS/PEIR Alternatives to the Biological Opinion.

Several commenters noted that all of the alternatives considered in the DSEIS/PEIR assumed future development of NPR-1 that exceeded the terms and conditions contained in the Biological Opinion issued to DOE by the U.S. Fish and Wildlife Service (FWS) on November 8, 1995. These commenters suggested that DOE should limit its consideration of alternatives only to those that are consistent with the operating and development assumptions upon which the Biological Opinion was predicated.

The current SEIS/PEIR is a supplement to the 1993 Supplemental Environmental Impact Statement, which analyzed the continued operation of NPR-1 based upon production at maximum efficient rate ("MER") as that term is defined in the Naval Petroleum Reserves Production Act. The "MER" development case was the Proposed Action in the 1993 SEIS and, as the Reference Case in the current SEIS/PEIR, forms the base line against which the impacts of the current Proposed Action and alternatives are analyzed.

The Biological Opinion issued to DOE by FWS on November 8, 1995, was also based upon the "MER" development case and production levels analyzed in the 1993 SEIS. The Biological Opinion provides that any development of the facility above those levels requires reconsultation between DOE and FWS. In addition, the Biological Opinion also sets limits on the number of additional acres that can be disturbed and the number of individual animals of threatened and endangered species that can be taken under the incidental take permit.

DOE and Kern County believe, as the DSEIS/PEIR states, that likely future development and production at NPR-1 would be above the levels upon which the 1995 Biological Opinion was based and believe that the alternatives considered in the DSEIS/PEIR should not be limited to those that do not exceed the development and production levels contained in the 1995 Biological Opinion.

The scope of this SEIS/PEIR includes all reasonably foreseeable oil and gas production operations and activities for the next half century. The three alternatives considered in the DSEIS/PEIR (the Proposed Action, No Action Alternative, and the Alternative to the Proposed Action) were each analyzed at two different levels of development: Government Development and Commercial Development. Both levels of development assume oil and gas production levels that are higher than those in the Reference Case. The details of each of these levels of development are provided in the Appendices to the DSEIS/PEIR.

NEPA requires the consideration of reasonable alternatives, and the analysis of reasonably foreseeable impacts resulting from implementing those alternatives. In order to develop NPR-1 at production levels above those contained in the 1995 Biological Opinion, however, DOE would need to reconsult with FWS under section 7 of the Endangered Species Act (ESA) and a private owner would need to obtain a permit from FWS under section 10 of the ESA, as discussed in the DSEIS/PEIR. There is no reason for DOE and Kern County to believe that FWS would not issue such a permit if DOE or a private applicant otherwise complied with all of the requirements of the ESA and its relevant regulations. The 1995 Biological Opinion itself anticipates the possibility of increased levels of development by DOE by providing for reconsultation in the event that DOE wished to alter the development assumptions and production levels upon which the Biological Opinion is based.

One of the reasons often cited for the divestiture of NPR-1 is that the Federal appropriations process and the procurement regulations under which the government is required to operate NPR-1 result in sub-optimum development of the petroleum resources, thus preventing the government from realizing the maximum economic benefits from the field. Therefore, the development of NPR-1 at levels beyond those described in the 1995 Biological Opinion is reasonably foreseeable under any of the alternatives.







### 1.3 Need for Reconsultation under the Existing Biological Opinion

Several comments expressed a need for DOE to reconsult with the FWS to address the potential significant long-term impacts to endangered species associated with the transfer of NPR-1 ownership. Concern was expressed that the 1995 Biological Opinion does not take into account the increased levels of activity that are likely to occur at NPR-1 under private ownership and that the mitigation measures required by the 1995 Biological Opinion will prove insufficient in protecting endangered species once Federal management of NPR-1 is lost.

Although the 1995 Biological Opinion issued by FWS provides that DOE must reconsult with FWS under Section 7 of the ESA if DOE undertook to sell NPR-1. DOE interpreted the authority contained in P.L. 104-106 to transfer DOE's incidental take permit as superseding the reconsultation requirement of the Biological Opinion. DOE conducted numerous discussions with the Department of the Interior (DOI), Office of the Solicitor in considering this matter. Subsequent to the issuance of the DSEIS/PEIR, DOE received a letter from the DOI Regional Solicitor dated August 6, 1997, interpreting P.L. 104-106 (referred to as the DAA in the letter) as it pertains to the transfer of the 1995 Biological Opinion and clarifying the terms and conditions that would transfer to the new owner of NPR-1 as a condition of the sale. A copy of that letter is provided in the Appendix to this FEIS/PEIR. That letter states in part:

*"The statute contains two operative provisions. The first sentence authorizes the Secretary of Energy to transfer the permit 'in effect on the effective date' [of the DAA] ... This provision has the effect of nullifying the need to reinitiate consultation prior to sale, as term and condition 3(a)[of the Biological Opinion] would otherwise require. This is so since a subsequent consultation and new incidental take statement would serve no purpose."*

This interpretation, provided by DOI, supports DOE's conclusion that no reconsultation with FWS is required of DOE prior to the sale of NPR-1.

To the extent that the new owner of NPR-1 continues to operate the facility consistent with the project description contained in the 1995 Biological Opinion, there is no basis upon which to conclude that the mitigation measures contained in the 1995 Biological Opinion would be insufficient in protecting endangered species; there would be no change in the operation of NPR-1 and the same mitigation measures presently required of DOE would be employed by the new owner. Those same mitigation measures may prove insufficient to mitigate the impacts caused by activities at NPR-1 that go beyond those which formed the basis of the 1995 Biological Opinion. However, the impacts caused by those unknown, incremental activities and the measures deemed appropriate to mitigate them would be addressed in subsequent discussions between the new owner of NPR-1 and FWS. This issue also was addressed in the letter from the DOI Regional Solicitor which states:

*"If the purchaser(s) proposes to modify any of its activities at NPR-1 in a manner that departs from the activities conducted by DOE and described and evaluated in the biological opinion...the purchaser(s) would have to obtain from the [Fish and Wildlife] Service an ESA section 10(a)(1)(B) permit prior to instituting the new or modified activity."*

Through the section 10 permitting process, FWS would be able to impose those mitigation measures it deemed sufficient to mitigate the impacts of any activities beyond those considered in the 1995 Biological Opinion.







## 1.4 Loss of Affirmative Federal Obligation to Protect Threatened and Endangered Species

Many comments expressed a concern that, by transferring ownership of NPR-1 to a private entity, the affirmative Federal obligation to protect and conserve threatened and endangered species (established by Section 7(a)(1) of the ESA) would be lost. These comments explained that the requirements of Federal agencies regarding threatened and endangered species are more stringent than those for private entities and that by transferring ownership the species of concern located on NPR-1 would lose the protection of the current Federal conservation efforts and be placed in greater jeopardy. Some comments, however, questioned the significance of the loss of the Federal obligation because, even under private ownership, activities at NPR-1 would still be subject to the jurisdiction of the same Federal, state and local government agencies.

The DSEIS/PEIR recognizes that one of the environmental impacts of the divestiture of NPR-1 would be the loss of the affirmative obligation of the Federal government to protect and conserve threatened and endangered species on NPR-1. This loss occurs because of the difference between the obligations imposed on Federal agencies by section 7 of the Endangered Species Act and the obligations imposed on private owners by section 10 of the Act. The former are imposed on the Federal agency as operator of the field and are implemented in consultation with FWS. The latter are implemented through the FWS's regulatory authority and the permitting process. There are two key differences between section 7 and section 10: (1) section 7 obligates Federal agencies to help species recover, whereas section 10 focuses merely on take avoidance by a private owner; and (2) the obligation of the Federal government to protect threatened and endangered plants is not imposed on private owners under section 10.

Although DOE and Kern County believe that the loss of the affirmative Federal obligation is an impact of the Proposed Action, they do not believe that, after consideration of the mitigation measures that may be imposed on the new owner, it can reasonably be concluded that such impact would be a significant one. Numerous mitigation measures would be imposed on any private owner. Specifically, the proposed purchaser of NPR-1, Occidental, has elected to accept the transfer of the 1995 Biological Opinion and to be bound by all of its terms, conditions and mitigation measures as long as it continues to operate the field within the parameters contained in the Biological Opinion. Additionally, Occidental included a provision in the sales contract whereby it will negotiate with FWS and the CDFG to determine additional mitigation measures it will implement after the closing date of sale of NPR-1. A list of these additional measures will be submitted to DOE within ten days after publication of this final SEIS/PEIR. (These measures are discussed in more detail in Major Issue 1.6.1) Beyond that, other mitigation measures are likely to be imposed on Occidental through the CEQA mandatory mitigation process, the California Endangered Species Act permit process, and the section 10 permit process under the ESA. Other than the measures contained in the Biological Opinion and the additional measures Occidental agrees to implement after consulting with FWS and CDFG, it cannot be predicted with certainty which mitigation measures would be implemented through these other regulatory processes. However, in large measure the current threatened and endangered species protection programs at NPR-1 are likely to remain in place for the reasonably foreseeable future.

There do appear to be two major elements of the Federal affirmative obligation that may be lost under the Proposed Action. The first is the potential loss of the likelihood that the Federal government would convert the property to a conservation area at the end of the field's useful life, as discussed in Major Issue 1.8. However, the DSEIS/PEIR identifies a number of means of mitigating that loss. The second element, for which the document does not identify mitigation, is the possibility that, if additional mitigation measures over and above those currently being implemented are needed (i.e., because agreed upon mitigations are insufficient to protect the species), under section 7 of the ESA DOE would have been obligated to undertake those measures if the reserve were not sold. Occidental, even if complying with the current section 7 permit, would not be so obligated under section 10 of the ESA. Given that such an event is unknown and speculative at this time, it cannot be reasonably concluded that the loss of that responsibility



would constitute a significant impact. However, the additional measures that Occidental agrees to implement (through negotiation with FWS and CDFG) may prove sufficient to mitigate this loss of Federal responsibility.





## 1.5 Protecting Native American Cultural Resources.

Several comments noted that there are locations on NPR-1 where human remains have been found on prehistoric archaeological sites. Commenters were concerned that an archaeological inventory of the entire facility has not been completed to identify additional burial sites and other culturally sensitive areas.

Desecration of burial sites also was identified as a major concern. One commenter spoke of the psychological toll extracted by the ongoing devastation of Native American ancestral lands. Commenters said that Federal control has effectively limited access to the facility and minimized the need for Native American oversight of areas on the facility. They fear that removal of Federal control of the land will open these areas to casual visitors who may desecrate suspected burial sites and that the activities of the new owners may damage culturally sensitive sites. Suggestions for protection of culturally sensitive areas included excluding them from sale or protecting them following the sale by placing these sites under control of some other Federal agency.

Several commenters sought opportunities for Native American involvement indecisions about the culturally sensitive areas. Referring to the conservation set-aside required in the 1995 Biological Opinion, one person asked if Native Americans would have an opportunity to have input into the selection of lands to be set aside. One commenter asked if Native Americans would have some opportunity to provide input to the on going consultations with the State Historic Preservation Officer (SHPO) regarding the significance of the archaeological finds in the recently completed evaluations of the prehistoric resources conducted by DOE.

Since the DSEIS/PEIR was prepared, archaeologists have completed a review of all previously recorded prehistoric sites. This review included an evaluation of their location on the NPR-1 landscape. As a result of this review, the archaeologists were able to identify the remaining sections of NPR-1(approximately 3000 acres) likely to contain prehistoric sites with characteristics similar to those recorded to date. DOE's analysis indicates that no sites found within these additional 3000 acres are similar to those sites where human remains have been found or are predicted as likely. Therefore, DOE believes that all culturally sensitive areas that reasonably can be identified by archaeological survey and testing have been identified.

DOE shares the concern of Native Americans about the potential for desecration of burial sites and other culturally sensitive areas, knowing that it has happened on sites near the NPR-1 boundary and even inside the boundary,in spite of limited public access. Mitigation options such as fencing sites or providing their locations to new private owners (in order that they may be avoided by future development plans) have been discussed by DOE contractors with Native Americans, who generally have said that these measures are more likely to lead to vandalism than to protection.

DOE and the SHPO are negotiating a Programmatic Agreement for the treatment of cultural resources that exist at the NPR-1 site. This agreement will include commitments by DOE to undertake various measures designed to mitigate the impacts of the sale of NPR-1 on historic and prehistoric properties. The agreement also will include measures specifically designed to address the impacts on resources of particular concern to Native Americans. One of these measures will be for DOE to inform the new owner and the California Department of Conservation, Division of Oil, Gas and Geothermal Resources of the fact that sites of this type are known to exist in the area, although without providing specific locations.

The DSEIS/PEIR evaluated two alternatives that assumed continuing Federal control of all of the facility or of surface soils. These would be more protective of culturally sensitive sites and more responsive to the suggestions of

commenters about keeping these areas under Federal protection. However, as explained in response to Major Issue 1.1, the Proposed Action is the only alternative identified that meets the objectives of P.L. 104-106.

DOE hopes to identify a Federal agency that can join the U.S. Fish and Wildlife Service in negotiating the location of the land to be included in the conservation set aside area required under the terms of the 1995 Biological Opinion and that will represent the interests of Native Americans in maximizing the inclusion of areas that archaeologists and Native Americans have identified as known or likely to contain human remains. The SHPO has indicated to DOE that the Programmatic Agreement that will define mitigation of impacts to the prehistoric archaeological resources must also address concerns related to the Native American Graves Protection and Repatriation Act (NAGPRA). DOE will provide for involvement and comment by Native Americans, both from tribes on the NAGPRA list and from others with traditional ties to Elk Hills, as DOE develops the Programmatic Agreement with the SHPO.





## 1.6 Mitigation Implementation

**1.6.1 Implementation through the Sales Contract:** Many comments questioned the process for implementing mitigation measures identified in the DSEIS/PEIR, particularly in the area of biological resources. A major concern was that there was no apparent mechanism for enforcing the implementation of mitigation measures. Commenters expressed concern that there was no assurance that the new private owner(s) of NPR-1 would implement any of the mitigation measures to protect sensitive biological resources. To help minimize the impacts on biological resources, commenters suggested that several biological resource mitigation measures and recommendations identified in the DSEIS/PEIR should be included as a requirement of the sales contract. In addition, some commenters stated that DOE should implement an environmental compliance provision in the sales contract because the compliance practices for habitat and ecological preservation contained in the Biological Opinion expire after 2035.

**1.6.2 Implementation through Other Permitting Processes:** Commenters also took issue with DOE's reliance on processes other than the sales contract for implementing mitigation measures. Concern was expressed that the DSEIS/PEIR relied on the processes of obtaining state and Federal authorizations for incidental take to provide mitigation for impacts of the Proposed Action, rather than identifying and requiring the implementation of mitigation measures within the CEQA and NEPA process.

**1.6.3 Sufficiency of Information for Mitigation:** Concern was also expressed that insufficient information was available upon which to base any analysis of future impacts and, consequently, it is not possible to identify the appropriate mitigation measures for rendering these impacts less than significant. In contrast, other commenters stated that after privatization, NPR-1 would be legally subject to all applicable Federal, state and local environmental statutes and regulations.



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### 1.7.1 Scope of the Socioeconomic Analysis

Currently, under the Naval Petroleum Reserves Production Act (P.L. 94-258), twenty five percent of oil production is set aside for sale to small refiners. DOE recognizes the important role that independent refiners play in meeting the nation's energy needs. For that reason, in structuring the sale of NPR-1, DOE has undertaken several steps to enhance the opportunity of small and independent refiners currently receiving NPR-1 crude oil to assure themselves of continued access. These steps are discussed in further detail in the following sub-heading.

The issue is whether the DSEIS/PEIR can reasonably analyze the largely socioeconomic impacts that might occur if, despite DOE's efforts to assure continued access, the small refineries are unable to continue to obtain NPR-1 crude oil. It is DOE's and Kern County's belief that such events are speculative because there are numerous factors affecting the continued operation of independent refiners and analyzing them is beyond the scope of the DSEIS/PEIR. One of those factors is the nature of the proposed purchaser of NPR-1. The operational structure of the purchaser will have an effect

on whether it would sell a portion of its production share to refiners in the region. In fact, the proposed purchaser, Occidental, has an operational structure similar to DOE: it is an exploration and production company with no refining capability. Since Occidental would not need to reserve its share of production from NPR-1 for its own refineries, there is no reason to believe that small and independent refiners in the region would have any less access to NPR-1 production than other refiners.

However, even if these small refiners were denied access to NPR-1 crude and, as some commenters suggested, were forced out of business, there is no way of knowing whether or not their facilities would be purchased and operated by other companies resulting in no net reduction in refinery capacity in the region. Thus, any socioeconomic analysis that considers such unknown events would become highly speculative.

In addition to the loss of access of NPR-1 crude being speculative, a number of other issues are likely to have a greater impact on the continued viability of the small refiners currently acquiring NPR-1 crude oil. As noted by some commenters in other contexts, there is presently a consolidation taking place in the oil industry. This consolidation is caused by factors unrelated to access to NPR-1 crude, since small and independent refiners presently do have access to NPR-1 crude. Factors affecting consolidation include: increased imports of refined product; declining domestic production (including at NPR-1); increasingly stringent environmental controls; limited access to pipelines; greater access to imported crude oil; increasing foreign investment in the domestic oil and gas industry; and decreased world oil prices. DOE does not have any existing data or analysis that indicates to what extent the loss of access to NPR-1 crude would, by itself, contribute to this ongoing consolidation and the potential loss of the independent refinery capacity in the region. Conducting such an analysis is beyond the requirements for preparation of an EIS. Further, any analysis of the environmental impacts (the principal objective of NEPA and CEQA) of the potential loss of access, would be so speculative as to provide little meaningful information to DOE and California decision makers. Therefore, DOE and Kern County did not expand the analysis of socioeconomic impacts beyond that contained in the current DSEIS/PEIR.





### 1.6.1. Implementation through the Sales Contract

P.L. 104-106 requires that DOE conduct the sale of NPR-1 in a manner that maximizes the proceeds to the United States, unless DOE determines that another course of action is in the best interest of the United States. Consistent with this objective, DOE has sought to ensure inclusion of mitigation measures in the Purchase and Sale Agreement for the sale of NPR-1 in a manner that does not reduce the eventual sales price.

First, those mitigation measures contained in the 1995 Biological Opinion will be included in the final sales contract pursuant to section 3413(d) of P.L.104-106. That section of the Act provides that:

*"The Secretary [of Energy] may transfer to the purchaser or purchasers...the incidental take permit...issued to the Secretary by the United States Fish and Wildlife Service and in effect on the effective date [of the Act] if the Secretary determines that transfer of the permit is necessary to expedite the sale of the reserve in a manner that maximizes the value of the sale to the United States. The transferred permit shall cover the identical activities, and shall be subject to the same terms and conditions, as apply to the permit at the time of the transfer."*

DOE determined that the transfer of the incidental take permit would serve to maximize the value of the sale of NPR-1 to the United States. Accordingly, DOE included a provision in the draft Purchase and Sale Agreement for NPR-1, that was made available to all prospective purchasers, which would transfer the 1995 Biological Opinion (including the incidental take statement) to the purchaser(s) of NPR-1. That provision was carried forward in the highest and best offer submitted by Occidental . By accepting the transferred Biological Opinion, Occidental :

*"...assumes and agrees to be bound by and perform all of the Seller's [DOE's] obligations under the Biological Opinion, including the on-going monitoring requirements set forth in the Biological Opinion and the obligation to establish the conservation area specified in the Biological Opinion."*

Thus, Occidental will assume all of the terms, conditions, and mitigation measures contained in the 1995 Biological Opinion and presently performed by and committed to by DOE through a provision of the sales contract.

The second step taken by DOE to incorporate mitigation into the sales contract was the inclusion of the following guidance to prospective bidders for NPR-1:

*You are advised that the draft Supplemental Environmental Impact Statement/Environmental Impact Review {sic} (SEIS/PEIR) relating to the Elk Hills' sale was issued July 24, 1997 {sic}, and is available for your review. You should review the potential mitigation activities identified in that document in connection with submitting your offer. To assist DOE in complying with its statutory obligations under the National Environmental Policy Act, DOE requests that you consider including in your Purchase and Sale Agreement commitments to undertake mitigation activities such as those identified in the SEIS/PEIR provided that such commitments do not negatively impact your offered price(s) so DOE can comply with its statutory obligation to maximize sales proceeds.*

In response to this provision, Occidental 's offer for NPR-1 contains the provision that it will:

*"...work with Seller in good faith to deliver a list of mitigation measures to be implemented by Buyer after Closing...Buyer agrees to negotiate in good faith with the U.S. Fish & Wildlife Service and the California Department of Fish and Game (or other relevant Governmental Authorities) prior to determining the specific mitigation measures it will take...and to provide to Seller, within ten (10) business Days after Seller's issuance of the FSEIS, a list of such mitigation measures."*

DOE anticipates that the mitigation measures submitted to DOE as a result of the above offer by Occidental will be

made a part of the Record of Decision.





## 1.6.2. Implementation through Other Permitting Processes

To the extent that the ROD contains DOE mitigation commitments, DOE will prepare a Mitigation Action Plan (MAP). The MAP will explain how the corresponding mitigation measures, designed to mitigate adverse environmental impacts associated with the course of action directed by the ROD, would be planned and implemented. These mitigation measures are likely to fall principally into three categories: those to be implemented through the transfer of the Biological Opinion (Occidental's offer to purchase NPR-1 includes acceptance of the Biological Opinion); those that will be committed to by Occidental as part of its offer of purchase; and those to be implemented by DOE prior to closing date (primarily mitigation of cultural resource impacts).

In addition, Kern County will prepare a mitigation plan containing additional mitigation measures, including mitigation tracking measures, as required by the CEQA process. This CEQA plan will identify which mitigation measures will be implemented by state or local agencies, and will assign responsibility to the appropriate agency for assuring that the mitigation measures are implemented. The plan will be approved by the Kern County Board of Supervisors prior to its implementation, which will be primarily through the state permitting processes.

It is important to note that the CEQA aspect of this SEIS/PEIR is a Program EIR because not all of the possible future state actions with respect to development of NPR-1 can be anticipated. A Program EIR contemplates at least the potential for additional future CEQA analysis, if actions that cannot be clearly identified at this time are expected to be proposed in the future. If future development of the NPR involves a state action not adequately analyzed in the SEIS/PEIR that potentially could be significant, then additional analysis under CEQA would be required.

It cannot be specified at this time what, if any, additional mitigation measures may be required as part of the CEQA process. However, in comments submitted on the DSEIS/PEIR, the California Department of Fish and Game (CDFG) provided a draft of a Memorandum of Understanding (MOU) which identified numerous terms, conditions, and mitigation measures (subject to revision) that could form the basis of authorization for incidental take under California Fish and Game code section 2081. The terms and conditions of this MOU were based on the project description and activities identified in the Biological Opinion issued to DOE by FWS on November 8, 1995, and, generally, are consistent with the terms, conditions, and mitigation measures presently employed by DOE in the operation of NPR-1. Further, as discussed in Major Issue 1.6.1 above, Occidental has proposed to negotiate mitigation measures with CDFG and to submit a list of those measures to DOE.

As discussed in the DSEIS/PEIR, CEQA declares it to be state policy not to approve projects if alternatives or mitigation measures are available to lessen the significant impacts of a project, unless specific economic, social or other conditions make the adoption of those mitigation measures infeasible. In addition, the California Guidelines for the implementation of CEQA require that the mitigation measures be described in the PEIR. The lead state agency for an action requiring a review under CEQA is often required to implement all of the mitigation measures identified through the CEQA process, including those measures unrelated to the lead agency's mission or area of responsibility. With respect to the Proposed Action, that agency is likely to be the California Department of Conservation, Division of Oil, Gas and Geothermal Resources since that agency has regulatory jurisdiction over many oil field development activities. This means that any of that Division's specific permitting processes can become the implementation and enforcement mechanism for all mitigation measures.

With respect to the DSEIS/PEIR's reliance on statutory and regulatory standards and the permit process to mitigate environmental impacts to levels that are less than significant, DOE and Kern County believe that CEQA and its guidelines require discussion of all mitigation regardless of whether it arises from separate statutory authority or sound environmental practices.







1.6.3 Sufficiency of Information for Mitigation

Where the DSEIS/PEIR identified significant impacts, it also identified measures that could mitigate those impacts to levels that are less than significant. In many cases, the DSEIS/PEIR does not attempt to specify detailed mitigation, particularly where the potential for adverse impacts is uncertain and where appropriate mitigation would be required by Federal or state regulations under the jurisdiction of the relevant Federal and state agencies, once detailed information on future operations becomes available. However, the DSEIS/PEIR provides very detailed mitigation measures that DOE and Kern County believe could reduce the impacts of the Proposed Action on Biological Resources. These mitigation measures were developed from those currently being implemented at NPR-1. The primary documents from which these measures were drawn are the 1995 Biological Opinion and the NPR-1 Protected Species Conservation Plan.

As all three of the alternatives involve levels of development that could exceed the levels of development upon which the 1995 Biological Opinion is based, the DSEIS/PEIR projects what additional mitigation measures might be required to mitigate those additional impacts to less than significant. DOE and Kern County are unable to predict with specificity which of these measures might be adopted or required by the relevant Federal and state agencies having jurisdiction over this issue. Some of these are alternative measures which will be left up to the discretion of the new owner to implement. The proposed purchaser, Occidental, has included a provision in the sales contract whereby it will implement additional mitigation measures under the process discussed above in Major Issue 1.6.1. These measures will be included in DOE's Mitigation Action Plan and incorporated in the Record of Decision. Beyond that, the NEPA and CEQA processes are attempting to identify a set of possible mitigation measures that could mitigate the anticipated adverse impacts to levels that are less than significant. Future regulatory actions by the appropriate Federal and state agencies may well impose additional or different mitigation requirements not included in the DSEIS/PEIR.

DOE believes that NEPA, independent of the CEQA obligations discussed above, requires that the document attempt to describe mitigation measures based on the best available information. Therefore, the DSEIS/PEIR includes extrapolated biological mitigation measures that might be imposed should production at NPR-1 exceed the current limits in the Biological Opinion. These extrapolated mitigation measures were based on the 1995 Biological Opinion and the NPR-1 Protected Species Conservation Plan, with some minor consideration of the mitigating measures in the Valley Floor Habitat Conservation Plan. DOE and Kern County believe that the impact information available forms a sufficient basis for the extrapolated measures. The information included numerous studies of the impact of oil and gas development on protected species at NPR-1 undertaken by DOE over an extended period of time. Those commenters that criticized the methodology for extrapolating mitigation measures suggested no alternative methodologies that would allow DOE and Kern County to better fulfill their obligation to present mitigation measures for the sale of NPR-1.





## 1.7. Socioeconomics

**1.7.1 Scope of the Socioeconomic Analysis:** Several commenters thought that the socioeconomic analysis was inadequate because it did not fully consider the impacts on the region and the State of California of the possible loss of small and independent refiners. That is, commenters suggested that, depending on the type and number of the successful purchaser(s) of NPR-1, many or all of the small and independent refiners in the region could be forced out of business if they were denied access to the light crude oil produced by NPR-1. Commenters suggested that such an event could result in multiple economic and socioeconomic impacts at the regional or state level.

**1.7.2 Continued Access to NPR-1 Crude Oil:** Several commenters expressed concern that, once the sale of NPR-1 is completed, small refiners may not have access to Elk Hills crude oil or that they might have to pay more than fair market price. These commenters noted that Section 7430 of the Naval Petroleum Reserve's Production Act (Act) currently prohibits any person from obtaining control, directly or indirectly, over more than 20 percent of estimated annual United States' share of petroleum produced from Elk Hills. In addition, commenters noted that the Act provides for twenty-five percent of oil production to be set aside for small refiners, which DOE has continually upheld. These commenters expressed concern that the regional socioeconomic makeup could be significantly altered if small and independent refiners are denied access to Elk Hills crude oil in the future. One commenter also noted that producers in the San Joaquin Valley are dependent upon Elk Hills crude to move their product in to the Los Angeles Basin because it is necessary to blend heavier crudes with a lighter crude oil to move it through the existing network of pipelines. According to several commenters, Elk Hills petroleum is their only available supply source for large volumes of high quality light crude oil that is not controlled by a major oil company.





1.7.1 Scope of the Socioeconomic Analysis

Currently, under the Naval Petroleum Reserves Production Act (P.L. 94-258), twenty five percent of oil production is set aside for sale to small refiners. DOE recognizes the important role that independent refiners play in meeting the nation's energy needs. For that reason, in structuring the sale of NPR-1, DOE has undertaken several steps to enhance the opportunity of small and independent refiners currently receiving NPR-1 crude oil to assure themselves of continued access. These steps are discussed in further detail in the following sub-heading.

The issue is whether the DSEIS/PEIR can reasonably analyze the largely socioeconomic impacts that might occur if, despite DOE's efforts to assure continued access, the small refineries are unable to continue to obtain NPR-1 crude oil. It is DOE's and Kern County's belief that such events are speculative because there are numerous factors affecting the continued operation of independent refiners and analyzing them is beyond the scope of the DSEIS/PEIR. One of those factors is the nature of the proposed purchaser of NPR-1. The operational structure of the purchaser will have an effect on whether it would sell a portion of its production share to refiners in the region. In fact, the proposed purchaser, Occidental , has an operational structure similar to DOE: it is an exploration and production company with no refining capability. Since Occidental would not need to reserve its share of production from NPR-1 for its own refineries, there is no reason to believe that small and independent refiners in the region would have any less access to NPR-1 production than other refiners.

However, even if these small refiners were denied access to NPR-1 crude and, as some commenters suggested, were forced out of business, there is no way of knowing whether or not their facilities would be purchased and operated by other companies resulting in no net reduction in refinery capacity in the region. Thus, any socioeconomic analysis that considers such unknown events would become highly speculative.

In addition to the loss of access of NPR-1 crude being speculative, a number of other issues are likely to have a greater impact on the continued viability of the small refiners currently acquiring NPR-1 crude oil. As noted by some commenters in other contexts, there is presently a consolidation taking place in the oil industry. This consolidation is caused by factors unrelated to access to NPR-1 crude, since small and independent refiners presently do have access to NPR-1 crude. Factors affecting consolidation include: increased imports of refined product; declining domestic production (including at NPR-1); increasingly stringent environmental controls; limited access to pipelines; greater access to imported crude oil; increasing foreign investment in the domestic oil and gas industry; and decreased world oil prices. DOE does not have any existing data or analysis that indicates to what extent the loss of access to NPR-1 crude would, by itself, contribute to this ongoing consolidation and the potential loss of the independent refinery capacity in the region. Conducting such an analysis is beyond the requirements for preparation of an EIS. Further, any analysis of the environmental impacts (the principal objective of NEPA and CEQA) of the potential loss of access, would be so speculative as to provide little meaningful information to DOE and California decision makers. Therefore, DOE and Kern County did not expand the analysis of socioeconomic impacts beyond that contained in the current DSEIS/PEIR.





## 1.7.2 Continued Access to NPR-1 Crude Oil

DOE understands that Elk Hills crude oil is a valuable asset to small and independent refiners in the region because of its light characteristics. This crude is important in the San Joaquin Valley because access to this crude gives small refiners and independent marketers the ability to negotiate with major oil companies on a more level playing field and provides a competitive alternative to Alaska North Slope crude oil.

Because DOE recognizes the importance Elk Hills crude oil has in the regional petroleum refining markets, the DOE strategy for the sale of NPR-1 contained elements that addressed the concerns expressed by the small and independent refiners. An optional provision (Article 15.1(a)) of the NPR-1 draft Purchase and Sale Agreement stated that:

*"(F)or a period of three years from and after the Closing Date, buyer will Offer Eligible Small Refiners twenty-five (25%) percent of its share of crude oil produced from the Assets ("ESR Volume") provided however, that the actual ESR Volume shall never exceed the ESR Volume calculated based on gross production from the Assets of 45,000 barrels of oil per day (the "ESR Set Aside")."*

Article 15.1 (b) of the Purchase and Sale Agreement (also an optional clause) addressed the fair market price of NPR-1 crude oil sold to small refiners by stating that:

*"... the price for crude oil sold by Buyer to any Eligible Small Refiner shall be negotiated as a premium to or discount from the Base Price ...and shall be no less favorable to Buyer than the higher of (I) the price offered by any other third party offers at the time of negotiation for the portion of production then under negotiation, or (ii) the price that is then in effect for other production volumes at the Elk Hills Lands being sold in arms-length third party contracts."*

In addition, the DSEIS/PEIR discusses the fact that DOE offered NPR-1 for sale in segments rather than as a single asset. The largest single segment was an operating interest representing approximately 74 percent of the Federal government's interest in NPR-1. The remainder of the government's share of NPR-1 was offered in 2-percent segments. Interested parties were able to bid for one or more of these segments. A 2-percent interest in NPR-1 is sufficiently small that a small independent refiner or a consortium of refiners could have acquired the interest. Successful bidders would have been assured of future access to NPR crude oil.

Between these two elements of the divestiture strategy, DOE believes that it took all the steps possible - consistent with DOE's obligations under P.L. 104-106 to maximize proceeds from the sale of NPR-1 - to mitigate the potential loss to local small refiners of their current assured access to NPR-1 crude oil.

Occidental has chosen not to accept the condition in the Purchase and Sale agreement that would guarantee small refiner access to NPR-1 oil for a period of 3 years. However, since Occidental does not refine oil and would not need the production from NPR-1 for its own purposes, there is no reason to believe that small and independent refiners would have any less access to NPR-1 crude oil than they do under DOE operation of NPR-1. Neither is there reason to believe that small and independent refiners would be discriminated against when Occidental offers the production from NPR-1 for sale on the open market.





## 1.8 Future Uses of the NPR-1 Property after the Completion of Oil and Gas Activities

Many comments addressed the potential uses of the NPR-1 site after the completion of oil and gas activities. The major concern was that the DSEIS/PEIR did not emphasize the long term consequences privatization could induce. The commenters stressed the fact that rapid depletion of oil and gas reserves might result in the loss of the use of NPR-1 land as habitat for endangered species in favor of other land uses by the new private owner once production ends. It was requested that the new owners of NPR-1 be required to rehabilitate the land in a manner approved by FWS and CDFG after the depletion of oil and gas reserves. The need for restrictions limiting future land use and development was also expressed.

The DSEIS/PEIR recognizes as one of the potential significant impacts of the Proposed Action the greater likelihood that under private ownership, as opposed to Federal ownership, NPR-1 would be converted at the end of its productive life to some use that would involve greater destruction of habitat than oil and gas development. The DSEIS/PEIR estimates the life of the field to be at least 40 years and under full development it is likely to be 60 years or more. Predicting that far into the future is somewhat speculative. However, the section 7(a)(1) obligations of Federal agencies and the importance of NPR-1 habitat to a number of threatened and endangered species are likely to continue. Therefore, it would appear likely, but not certain, that under Federal ownership NPR-1 would be converted to a wildlife conservation area at the end of its useful life. This is less likely to happen under private ownership.

DOE and Kern County believe that this potential impact of the Proposed Action is significant, although one that is likely to be remote in time, unless the proposed purchaser ( Occidental ) is willing to commit in advance to establishing a conservation easement over most of NPR-1 as part of the sales process. However, if the Congressional objective of maximizing revenues to the Federal government from the sale, and selling all right, title, and interest in NPR-1 are to be achieved, DOE cannot undertake any further steps to mitigate this potential impact

Nonetheless, there are a number of considerations discussed in the DSEIS/PEIR that may tend to reduce the loss of Elk Hills habitat to other development at the end of its productive life. First, the DSEIS/PEIR identifies as a measure to mitigate this impact setting aside the NPR-1 lands in perpetuity under a conservation easement. This could be one of the mitigation measures that the proposed purchaser, Occidental , could choose to adopt under the sales process discussed above. However, even if Occidental wishes to retain the development potential of the land because of its perceived value, a number of actors may limit such development. First, Western Kern County currently lacks the infrastructure to support intensive post-oil and -gas development at Elk Hills. Further, if the land were converted to some other use, there would likely need to be an amendment to the Kern County General Plan. This would trigger additional analysis under CEQA with the requirement to mitigate impacts to levels that are less than significant. In addition, as noted by a number of comments, the second highest and best use of this land is as a habitat. Under the compensation provisions of the Federal and California endangered species permitting processes, it is possible the land may be sold to other entities having habitat disturbance compensation obligations. Finally, any development of NPR-1 will generate compensation obligations that will require the establishment of conservation areas in the region consistent with FWS guidelines. Currently, these guidelines for the NPR-1 region require a ratio of three acres of compensation for every acre disturbed.





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<a href="#">CC1-2</a>	<a href="#">CC1-3</a>	<a href="#">CC1-4</a>	-
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Geology and Soils

<a href="#">AGR-1</a>	<a href="#">SC2-6</a>	<a href="#">SC2-9</a>	-
<a href="#">CC2-1</a>	<a href="#">SC2-7</a>	<a href="#">SC1-7</a>	-
<a href="#">COM-1</a>	<a href="#">SC2-8</a>	<a href="#">SC1-8</a>	-

Hazardous Materials and Waste Management

<a href="#">CHV-55</a>	<a href="#">CHV-87</a>	<a href="#">EPA-12</a>	<a href="#">KCW-4</a>
<a href="#">CHV-56</a>	<a href="#">CHV-88</a>	<a href="#">EPA-13</a>	<a href="#">KCW-5</a>
<a href="#">CHV-84</a>	<a href="#">DOI-31</a>	<a href="#">KCW-1</a>	-
<a href="#">CHV-85</a>	<a href="#">EPA-4</a>	<a href="#">KCW-2</a>	-
<a href="#">CHV-86</a>	<a href="#">EPA-11</a>	<a href="#">KCW-3</a>	-

Hazards Risk Management

<a href="#">CHV-25</a>	<a href="#">CHV-133</a>	<a href="#">CHV-135</a>	<a href="#">CHV-137</a>
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<a href="#">CHV-103</a>	<a href="#">CHV-134</a>	<a href="#">CHV-136</a>	<a href="#">CHV-138</a>
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Mailing List

<a href="#">EPA-5</a>	-	-	-
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Programmatic Issues

Comment Page #	Comment Page #	Comment Page #	Comment Page #
<a href="#">ACE-1</a>	<a href="#">DOA-1</a>	<a href="#">S_F-9</a>	-

Purpose and Need for Agency Action

<a href="#">CHV-28</a>	<a href="#">CHV-30</a>	<a href="#">KCM-1</a>	-
<a href="#">CHV-29</a>	<a href="#">D_M-1</a>	-	-

Socioeconomics

<a href="#">CHV-8</a>	<a href="#">PEN-3</a>	<a href="#">PGE-1</a>	<a href="#">WIR-1</a>
<a href="#">CHV-9</a>	<a href="#">PEN-4</a>	<a href="#">PGE-2</a>	<a href="#">WIR-2</a>
<a href="#">CHV-132</a>	<a href="#">PEN-5</a>	<a href="#">PGE-3</a>	<a href="#">WIR-3</a>
<a href="#">KOR-1</a>	<a href="#">PEN-6</a>	<a href="#">PGE-4</a>	<a href="#">WIR-5</a>
<a href="#">KOR-3</a>	<a href="#">PEN-7</a>	<a href="#">SC2-1</a>	<a href="#">WIR-6</a>
<a href="#">KOR-4</a>	<a href="#">PEN-8</a>	<a href="#">SC1-1</a>	<a href="#">WIR-7</a>
<a href="#">PEN-1</a>	<a href="#">PEN-9</a>	<a href="#">S_F-6</a>	<a href="#">WIR-8</a>
<a href="#">PEN-2</a>	<a href="#">PEN-16</a>	<a href="#">S_F-7</a>	<a href="#">WIR-9</a>

Water Resources

<a href="#">CDC-1</a>	<a href="#">CHV-96</a>	<a href="#">CHV-100</a>	<a href="#">CHV-104</a>
<a href="#">CFG-6</a>	<a href="#">CHV-97</a>	<a href="#">CHV-101</a>	<a href="#">DOI-11</a>
<a href="#">CHV-66</a>	<a href="#">CHV-98</a>	<a href="#">CHV-102</a>	-
<a href="#">CHV-95</a>	<a href="#">CHV-99</a>	<a href="#">CHV-103</a>	-





# CHAPTER TWO

## Public Comments

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### Federal Government Agencies

- 1. [U.S. Department of Agriculture \(AGR\)](#)
- 2. [U.S. Department of the Army \(ACE\)](#)
- 3. [U.S. Department of Commerce \(COM\)](#)
- 4. [U.S. Department of the Interior \(DOI\)](#)\*
- 5. [U.S. Environmental Protection Agency Region IX \(EPA\)](#)\*

\* Received after close of comment period.





# CHAPTER TWO

## Public Comments

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### State Government Agencies

- 1. California Department of Conservation ([CDC](#)) and([CCV](#))\*
- 2. [California Department of Fish and Game \(CFG\)](#)
- 3. [California Energy Commission \(CEC\)](#)

\* Received after close of comment period.





# CHAPTER TWO

## Public Comments

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### Local Government Agencies

- 1. [Kern County Department of Airports \(DOA\)](#)
- 2. [Kern County Museum \(KCM\)](#)
- 3. [Kern County Waste Management Department \(KCW\)](#)
- 4. [San Joaquin Valley Unified Air Pollution Control District \(UAP\)](#)





# CHAPTER TWO

## Public Comments

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### Native American Organizations

- 1. [The Tinoqui-Chalola Council of Kitanemuk and Yowlum ne Tejon Indian \(TCC\)](#) \*

\* Received after close of comment period.





# CHAPTER TWO

## Public Comments

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### Private Industries

- 1. [Aera Energy LLC \(AER\)](#)
- 2. [Chevron U.S.A. Production Company \(CHV\)](#)
- 3. [Kern Oil and Refining Company \(KOR\)](#)
- 4. [Pacific Gas and Electric Company \(PGE\)](#)\*
- 5. [Pennzoil Exploration and Production Company \(PEN\)](#)

\* Received after close of comment period.





# CHAPTER TWO

## Public Comments

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### Associations

- 1. [California Native Plant Society \(CNP\)](#) \*
- 2. [Conservation Committee of California Oil and Gas Producers \(CC1\)](#)
- 3. [Environmental Defense Fund \(EDF\)](#) \*
- 4. [Sierra Club, Kern-Kaweah Chapter \(SC1\)](#)
- 5. [Western Independent Refiners Association \(WIR\)](#)
- 6. [The Wildlife Society \(WIL\)](#) \*
- 7. [The Wildlife Society, San Joaquin Valley Chapter\(SWS\)](#) \*

\* Received after close of comment period.





# CHAPTER TWO

## Public Comments

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### Concerned Citizens

- 1. [Scott Frazer \(S\\_F\)](#)
- 2. Robert Gomez, Jr. [\(RG1\)](#)\* and [\(RG2\)](#)\*
- 3. [Patrick A. Kelly \(PAK\)](#)\*
- 4. [Duane Marti \(D\\_M\)](#)\*

\* Received after close of comment period.







# CHAPTER TWO

## Public Comments

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### Public Hearing Commenters

- 1. [Sierra Club, Kern-Kaweah Chapter \(SC2\)](#)
- 2. [Western States Petroleum Association \(WSP\)](#)
- 3. [AGIP Petroleum \(AG1\)](#)
- 4. [Kern River Pipe Council \(KRP\)](#)
- 5. [Conservation Committee of California Oil and Gas Producers \(CC2\)](#)
- 6. [AGIP Petroleum \(AG2\)](#)
- 7. [Chumash Council of Bakersfield \(CCB\)](#)





# CHAPTER THREE

## Response to Comments

### Federal Government Agencies

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**Comment Code:**Federal Government Agency [AGR-1](#)

**Response:** Comment noted. The revised soil information provided by the commenter provides additional information and clarification about soil conditions of Elk Hills. See Section 3.6.1 of the DSEIS/PEIR and the revised text for Section 3.6.1 in this document. The commenter is the author of the Soil Survey of Kern County, California, Naval Petroleum Reserve Number One Part, Interim Report (not dated)

**Errata:** Change page 3.1-4 and page 3.1-5, paragraph 4 and paragraph1, respectively to read:

The soils of Elk Hills are composed of highly stratified deposits that vary greatly in their proportions of gravel, sand, silt, and clay. Some strata are gravelly sands, some are clayey, and some have a loamy texture with a mixture of sand, silt, and clay that is poorly sorted. A few areas have a soil layer that is chemically cemented hard pan (Regal 1997).

Many areas of Elk Hills contain loamy surface soils that are underlain by mottled clayey former lake deposits. Some of the sub-surface layers containing ypsom crystals and other salts (e.g., sodium, chlorine, and boron) that commonly accumulate in arid regions. Salt concentrations usually are highest in fine-grained soils where the low permeability associated with these materials,low annual precipitation, and insufficient perennial surface water allow only minimal leaching to occur. In these high-saline areas, plant growth is reduced dramatically and shifts toward more salt-tolerant species.

**Comment Code:**Federal Government Agency [ACE-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Local Government Agencies Federal Government Agency [COM-1](#)

**Response:** In order to learn more information about these monuments,the referenced individual was contacted. It was learned that the 90 day notice requirement only applies to Federal agencies. As the Proposed Action does not involve moving any of the monuments, no further action is required. However, for the sake of completeness, the monuments in the general latitude and longitude of NPR-1 have been identified from the commenter's data base and are vision to Section 3.7 listing those monuments is included in Chapter 4.

**Errata:** Insert the following paragraph and table after page 3.7-2,paragraph 2:

The site contains various geodetic control monuments of the National Geodetic Survey. The following list of monuments in the general region of the longitude and latitude of NPR-1 was prepared from the Survey's web site at <http://www.ngs.noaa.gov>. Federal Agencies are required to contact the Survey prior to moving any such monuments.

### Geodetic Control Monuments within the Vicinity of NPR-1

PID	Designation	Lat	Lon

FU1982	V 548	351239	1192412
FU1400	Y 326 UOCO	351259	1193354
FU1401	R 951	351300	1193353
FU2311	LAKE RM 3	351301	1192237
FU2312	LAKE RM 4	351301	1192237
FU2310	LAKE	351302	1192237
FU1980	U 548	351315	1192320
FU1402	1275 USGS	351321	1193414
FU1403	CDS	351324	1193417
FU2309	195 DWR	351326	1192232
FU1977	EH 11 DWR	351328	1192643
FU2303	S 548	351345	1192035
FU2308	T 548	351346	1192232
FU3243	J 1292	351352	1193447
FU2302	R 548	351358	1192048
FU2305	L 1098	351358	1192126
FU2297	192 DWR	351402	1192016
FU1976	EH 10 DWR	351403	1192642
FU1406	Z 326	351425	1193517
FU1975	EH 9 DWR	351442	1192725
FU1407	A 951	351444	1193538
FU1589	EH 8 DWR	351516	1192747
FU1588	EH 7 DWR	351605	1192758
FU3676	PUFF	351606	1192427
FU3679	PIPE MARK NEAR STA PUFF 1958	351606	1192427
FU3675	ELK 2	351611	1192519
FU3677	ELK	351612	1192519
FU3678	BFI 1334	351612	1192519
FU1587	EH 6 DWR	351635	1192804
FU1503	184 DWR	351711	1192009
FU3682	WEST ELK	351717	1193038

FU1586	EH 5 DWR	351722	1192751
FU1506	K 1098 K CO	351734	1192047
FU1514	183 A DWR	351747	1192101
FU1518	182 A DWR	351801	1192128
FU1517	183 DWR	351801	1192130
FU1525	182 DWR	351825	1192217
FU1571	181 DWR	351839	1192305
FU1576	180 A DWR	351906	1192338
FU1584	EH 3 DWR	351911	1192750
FU1568	Z 980	351929	1192335
FU1581	180 DWR	351934	1192443
FU1565	H 981	351950	1192442
FU1583	EH 2 DWR	351953	1192744
FU1558	179 DWR	351958	1192550
FU1582	EH 1 DWR	352020	1192755
FU1551	178 DWR	352022	1192649

**Comment Code:**Federal Government Agency Agency[DOI-1](#)

**Response:** DOE is in receipt of a letter dated August 6, 1997, from the DOI Regional Solicitor confirming that the requirements of P.L. 104-106 meet the need to reconsult under the terms of the 1995 Biological Opinion. See Major Issue 1.3, Reconsultation Under the Biological Opinion, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency Agency[DOI-2](#)

**Response:** DOE agrees that the No Action Alternative and Alternative to the Proposed Action both result in greater protection to threatened and endangered species than the Proposed Action. However, DOE believes that the Proposed Action is the only action which would be consistent with Congress' interest as expressed in P.L. 104-106. See Major Issue 1.1, DOE's Preferred Alternative, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency Agency[DOI-3](#)

**Response:** The operation prescribed in the 1995 Biological Opinion will become a condition of the sale of NPR-1 if the purchaser(s) elect to accept the Biological Opinion. See Major Issue 1.6.1, Implementation Through the Sales Contract, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency Agency[DOI-4](#)

**Response:** The range of alternatives for analysis does include an alternative with activities within the Biological Opinion -- the No Action Alternative. As discussed under Major Issue Section 1.2, DOE and Kern County believe that a private owner likely would aggressively develop the resources contained within NPR-1 while government development would occur more slowly. As a result, the alternatives considered in the DSEIS/PEIR are based upon reasonable development cases that clearly exceed limits prescribed by the Biological Opinion. See Major Issue 1.2, Relationship of Alternatives to the Biological Opinion, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-5](#)

**Response:** DOE believes that the numerous biological studies conducted at NPR-1 form an adequate basis for projecting possible measures that could mitigate impacts caused by future development. Nonetheless, the DSEIS/PEIR does not imply that the measures identified would be exclusively sufficient. The actual measures to be employed in the long-run would result from discussions with the new owner(s) of NPR-1 during the process of obtaining a permit under Section 10 of the ESA. See Major Issue 1.6.3, Sufficiency of Information for Mitigation, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-6](#)

**Response:** See response to Comment DOI-2 and Major Issue 1.1, DOE's Preferred Alternative, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-7](#)

**Response:** DOE and Kern County and the three processes of incorporating mitigation measures discussed in Major Issue 1.4, Loss of Affirmative Federal Obligation, would help mitigate the loss of Federal ownership of NPR-1 and the associated Federal stewardship of environmental resources.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-8](#)

**Response:** DOE and Kern County note CDFG's and DOI's position in their comment letters with respect to the VFHCP and agree that incorporation of Elk Hills into the VFHCP is unlikely as a short-term mitigation vehicle. The DSEIS/PEIR addressed a number of alternative mitigation implementation methods of which the VFHCP was given as an example of one type (a regional HCP). Thus, it is retained in the DSEIS/PEIR as an example of a regional HCP and a potential long-term mitigation vehicle.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-9](#)

**Response:** DOE and Kern County agree with the comment. However, the program is retained in the document because it is a term and condition of the Biological Opinion which the new owner would have to comply with. See the Department of Interior letter in the Appendix.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-10](#)

**Response:** DOE and Kern County agree with the comment. As noted in the DSEIS/PEIR on page 4.5-4, "[i]n order to be able to expand the current level of exploration and production, ultimately, the new owner would need to obtain a Section 10 permit."

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-11](#)

**Response:** DOE and Kern County agree with the comment. See the revised text for Page 3.7-3, contained within this document.

**Errata:** Change page 3.7-3, paragraph 1, sentence 2 and 3 to read:

The Kern Water Bank Plan is part of the Kern Water Bank Authority and will be managed for water recharge and endangered species. The Bank is approximately 20,000 acres, which is located near the eastern border of NPR-1 and is the subject of an HCP application.

**Comment Code:**Federal Government Agency[DOI-12](#)

**Response:** See response to Comment DOI-4 and Major Issue 1.2,Relationship of Alternatives to the Biological Opinion, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-13](#)

**Response:** See response to Comment DOI-7 and Major Issue 1.4, Loss of Affirmative Federal Obligation, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-14](#)

**Response:** DOE and Kern County agree with the comment on simultaneously negotiating with both FWS and CDFG. See the revised text for Section 4.5.

**Errata:** Delete on page 4.5-4, paragraph 6, the last two sentences and insert the following:

It would be in the new owner's best interests to ensure that the additional measures taken to mitigate the impacts of future planned expansion are approved at both the state and Federal levels. Simultaneous negotiations with CDFG and the USFWS would allow the new owner to develop mitigation measures that meet the requirements of CEQA and the California ESA, as well as the Federal ESA. Such joint negotiations would ensure that expanded development of NPR-1 could be carried out as swiftly as possible, without sacrificing the existing level of mitigation. This is the procedure currently employed in developing HCPs and conducting Section 7 consultations in the San Joaquin Valley for jointly listed species.

**Comment Code:**Federal Government Agency[DOI-15](#)

**Response:** The paragraph in question did not mention the VFHCP, but did imply it. See the revised text for Page 4.5-5, in Chapter 4.

**Errata:** Change page 4.5-5, paragraph 2, sentence 3 to read:

However, even that impact could be mitigated to less than significant levels within the meaning of CEQA by the adoption of mitigation measures properly structured to account for the loss of the Federal protection of NPR-1 and NPR-2.

**Comment Code:**Federal Government Agency[DOI-16](#)

**Response:** The text on Page 4.5-5 actually states that the impact have been "largely" mitigated through implementation of mandatory measures in a series of Biological Opinions. The DSEIS/PEIR indicates that DOE did not establish the conservation area.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-17](#)

**Response:** DOE and Kern County agree with the comment and note that the DSEIS/PEIR discussed this on Page 4.5-6.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-18](#)

**Response:** Section 4.5 does reach this conclusion. However,the DSEIS/PEIR also notes that appropriate mitigation measures imposed by the relevant Federal and state agencies with jurisdiction over threatened and endangered species should mitigate these impacts to less than significant. Also, CEQA requires that all feasible measures that could mitigate to less than significant be incorporated before a state agency may approve a project.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-19](#)

**Response:** Comment noted. No response required. See Major Issue1.5, Native American Cultural Resources.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-20](#)

**Response:** Comment noted. See revision to the Executive Summary.

**Errata:** Change page ES-2 paragraph 4, sentence 3 to read:

Estimated total production for the Commercial Development Case ranges from approximately 849 to 1,225 million barrels of oil equivalent per year from 1997 to 2034.

**Comment Code:**Federal Government Agency[DOI-21](#)

**Response:** Comment noted. See revision to the Executive Summary in Chapter 4.

**Errata:** Change page ES-5, paragraph 2, sentence 5 to read:

Estimated total production for the Reference Case is approximately 730 million barrels of oil equivalent (including oil, gas, and other non-gas liquids) per year from 1997 through 2034.

**Comment Code:**Federal Government Agency[DOI-22](#)

**Response:** See revision to the Executive Summary.

**Errata:** Change page ES-7, paragraph 3, sentence 3 to read:

Expected activities in NPR-2 include drilling and completing approximately 75 new production wells.

Change page ES-7, paragraph 3, sentence 6 to read:

In addition, petroleum support facilities would be kept in good repair to ensure operation of tank settings and oil/water/gas hydration/lease automatic custody transfer (LACT) units.

**Comment Code:**Federal Government Agency[DOI-23](#)

**Response:** Comment noted. DOE currently permits the wells following procedures very similar to BLM's. See revision to the Executive Summary.

**Errata:** Change page ES-8, item 2, sentence 1 to read:

NPR-2 Sale of Remaining Mineral Rights Subject to Current Leases and Transfer of Remaining Interest to BLM for Management of the Surface Interest in Accordance with Federal Law would have DOE sell the remaining mineral rights in NPR-2, subject to existing leases, and then transfer DOE's current permitting and management responsibilities for the existing leases to BLM.

**Comment Code:**Federal Government Agency[DOI-24](#)

**Response:** DOE agrees that management of NPR-2 by BLM (the recommended action) would continue the Federal protection to biological resources on the NPR-2 property. However, the cumulative impacts from the sale of NPR-1 would still be significant.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-25](#)

**Response:** The sentence is referring to the purchase of a non-operating working interest in NPR-1 by small refiners. This would allow these entities to actually own a portion of the production of NPR-1.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-26](#)

**Response:** Comment noted. See revision to Section 2.3.2.1 in Chapter 4.

**Errata:** Change page 2.3-3, paragraph 1, sentence 6 to read:

The Department of Interior's Minerals Management Service would collect royalties from NPR-2 production, as it does for all leases managed by BLM.

**Comment Code:**Federal Government Agency[DOI-27](#)

**Response:** Comment noted. See revision to Section 2.3.3.2 in Chapter 4.

**Errata:** Change page 2.3-5, paragraph 5, sentence 5 to read:

Like the purchasers of the smaller non-operating interests in Sales Scenario 1 of the proposed NPR-1 action, the buyers of the remaining mineral rights would not control how future development of reserves would occur unless the buyer were the same as the existing lessee of a given tract of land.

**Comment Code:**Federal Government Agency[DOI-28](#)

**Response:** Comment noted. See revision to Section 2.4.1 in Chapter 4.

**Errata:** Change page 2.4-1, paragraph 3, sentence 4 to read:

For comparative purposes, that EIS estimates that 150 to 260 new wells would be drilled annually on Federal lands



compared to the highest projected well drilling activities under this DSEIS/PEIR of 89 new wells to be drilled on NPR-1 and NPR-2.

**Comment Code:** Federal Government Agency [DOI-29](#)

**Response:** In 1993 the field had a flat rate expected life of 9.4 years at the 1993 rate of production. DOE recognizes this is a conservative number and that a more realistic production period could be calculated considering the field rate of decline. However the 1993 Annual Review of California Oil & Gas Production states the life of the field, in terms of 1993 production, as 9.4 years.

**Errata:** None.

**Comment Code:** Federal Government Agency [DOI-30](#)

**Response:** Comment noted. See revision to Section 2.4.2 in Chapter 4.

**Errata:** Revisions to Section 2.4:

1. Change page 2.4-6, partial paragraph 1, sentence 1 to read:

Producers at Midway-Sunset include BLM lessees and more than 50 private companies and independents.

2. Insert the following after page 2.4-3, paragraph 3, sentence 1:

Producers at McKittrick include BLM lessees and more than 13 private companies and independents.

3. Change page 2.4-6, paragraph 7, sentence 4 to read:

Producers at Cymric include BLM lessees and more than 25 private companies and independents.

**Comment Code:** Federal Government Agency [DOI-31](#)

**Response:** Comment noted. The referenced table entry has been modified accordingly.

**Errata:** Change page 3.2-3, Table 3.2-1, fourth row to read:

Facility: Section 20 trash dump

Waste Managed or Contamination (if applicable): general trash

Activity and Status: Cleaned up and sold by ARCO to Vintage in 1997

References: Dave Bone (BPOI)

**Comment Code:** Federal Government Agency [DOI-32](#)

**Response:** DOE agrees with the comment. See the revised text for Page 4.5-37, contained within this document.

**Errata:** Replace page 4.5-37, paragraph 6, with the following:

Mitigation measures under BLM management would be virtually identical to those under the "No action - continued DOE leasing" alternative since both are federal agencies and have the same requirements under the Endangered Species Act.

**Comment Code:** Federal Government Agency [DOI-33](#)

**Response:** DOE and Kern County agree with the comment. The appropriate changes will be indicated in the revisions of this document.

**Errata:** Replace page 4.5-39, Table 4.5-10, the "Transfer to BLM" column with the following:

The same abbreviations as appear in the "continued DOE leasing" column.

**Comment Code:** Federal Government Agency [DOI-34](#)

**Response:** Comment noted. See revision to Appendix C, Section C.2.1.1 in Chapter 4.

**Errata:**

1. Change page C.2-1, paragraph 1, sentence 1 to read:

Currently there are approximately 200 active wells, 225 abandoned or idle wells, 34 tank settings and six oil/water sumps on DOE lands within NPR-2.

2. Change page C.2-1, paragraph 1, sentence 2 to read:

Continued production and development of known reserves at NPR-2 would require drilling and completing new production wells, commonly known as in fill wells.

3. Change page C.2-1, paragraph 1, sentence 4 to read:

The additional production or in fill wells would require pipelines, pumps, storage tanks, and other permanent equipment.

**Comment Code:** Federal Government Agency [DOI-35](#)

**Response:** Comment noted. See revision to Section C.2.1.1 in Chapter 4.

**Errata:** Change page C.2-1, paragraph 4, bullet 2 to read:

Workers are trained in emergency response procedures to protect human health and the environment.

**Comment Code:** Federal Government Agency [DOI-36](#)

**Response:** Comment noted. See revision to Appendix C, Section C.2.1.2. of Chapter 4.

**Errata:** Appendix C

1. Change page C.2-2, paragraph 2, sentence 1 to read:

The private companies that conduct petroleum-related activities on DOE-owned NPR-2 lands include Chevron USA, Inc. Fred S. Holmes; Aera Energy; Oakland Petroleum Operating Company; Phillips Petroleum Company; Texaco, USA; UNOCAL Corporation; Valley Waste Disposal Company; Vintage Petroleum Company; and numerous petroleum pipeline companies (see Figure 1.4.1).

2. Change page C.2-2, paragraph 5 to read:

Aera Energy / Oakland Petroleum Operating Company. Aera has three leases totaling 280 acres (110 ha) in Section 32G. Aera has reassigned one of these leases totaling 80 acres (32 ha) to the Oakland Petroleum Operating Company and has not conducted operations on lands under the other two leases for over 30 years. Aera is considering reassigning the remaining two leases as well. Oakland is currently operating one tank setting and two stripper wells. The stripper wells produce eight barrels/d. The tank setting consists of one 500-barrel shipping tank, one 100-barrel produced water

tank, one 500-barrel oil/ water separator, and one covered oil/water sump. Oakland generates approximately 9,000 barrels of produced water per year, which is disposed of by injection off-site.

**Comment Code:**Federal Government Agency[DOI-37](#)

**Response:** Comment noted. See revision to Appendix C, Section C.2.1.2. in Chapter 4.

**Errata:** Change page C.2-3, paragraph 2, sentence 3 to read;

Texaco operates approximately 124 oil and gas wells and produces approximately 447 barrels/d of oil, 6,857 MCF/d of gas, and 6,300 gallons/d of natural gas liquids.

**Comment Code:**Federal Government Agency[DOI-38](#)

**Response:** As indicated in Table 3.2-1 on page 3.2-3 of the DSEIS/PEIR, remediation of the Broad Creek #3 facility was completed in 1994. The information presented on page C.2-3 was out of date, is no longer relevant, and has been deleted from Section C.2.1.2.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-39](#)

**Response:** DOE and Kern County believe that the DSEIS/PEIR with the changes in Chapter 4 accurately reflects the actual impacts of the Proposed Action.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-40](#)

**Response:** Comment noted. See Major Issue 1.2, Relationship of Alternatives to the Biological Opinion.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-41](#)

**Response:** See response to Comment DOI-5 and Major Issue 1.6.3, Sufficiency of Information for Mitigation.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-42](#)

**Response:** The DSEIS/PEIR states that the Proposed Action (DOE's Preferred Alternative) is not the least environmentally damaging alternative. See response to Comment DOI-2 and Major Issue 1.1, DOE's Preferred Alternative.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-43](#)

**Response:** See Major Issue Section 1.4, Loss of Affirmative Federal Obligation. Also, see response to Comment DOI-7.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-44](#)

**Response:** See response to Comment DOI-8.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-45](#)

**Response:** DOE and Kern County agree that the transfer is contingent on the new owner following the projection description that was provided as part of the consultation process leading to the 1995 Biological Opinion. See Major Issue Section 1.2, Relationship of Alternatives to the Biological Opinion.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-46](#)

**Response:** DOE and Kern County acknowledge the concern expressed in this comment and will continue to work with the Native American groups and the SHPO in the development of a Programmatic Agreement for mitigation. See Major Issue 1.5, Native American Cultural Resources and revised Section 4.6.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-1](#)

**Response:** Comment noted. See responses to commenter's three key issues, which follow.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-2](#)

**Response:** As the DSEIS/PEIR indicates, the model was run assuming maximum permitted emissions, that is, assuming the sources ran 24 hours a day at maximum emission rates. Actual emission rates generally run much less than modeled rates as the above assumptions are conservative. Therefore it is expected that actual 2001 emissions would not contribute to a violation of regional air quality standards. However, as noted in the document, mitigation measures could readily be implemented to achieve consistency with the state Implementation Plan should this occur. The comment of the San Joaquin Valley Unified Air Pollution Control District, which is the regional agency charged with implementing the State Implementation Plan, is relevant to this comment. That agency sees no significant air issues from the Proposed Action. However, see the revision to Section 4.3.3.2, clarifying the obligation for consistency with the State Implementation Plan.

**Errata:** Insert after page 4.3-5, paragraph 5, sentence 2:

Any such permits would only be issued after a clear demonstration of consistency with the State Implementation Plan.

**Comment Code:**Federal Government Agency[EPA-3](#)

**Response:** DOE and Kern County acknowledge the concern. See the discussion of sales contract terms and conditions in Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-4](#)

**Response:** At the current time there are no PCB's in the transfer area awaiting disposal at a properly permitted facility. Any PCB's in the transfer area as well as any hazardous waste at the other transfer areas would be disposed of at a properly permitted facility before transfer of NPR-1 to the new owner. See revision to Section 3.2.3 in Chapter 3. The responsibility for PCB's in use would be resolved in the negotiation of the contract for sale of NPR-1. However that issue might be resolved will not affect the conclusions of the document with respect to the impacts of the Proposed

Action due to hazardous and toxic waste.

**Errata:** Insert the following footnote on page 3.2-3 at the end of the first partial sentence:

Any hazardous waste or wastes containing PCBs at these transfer areas would be disposed of at a properly permitted facility before transfer of NPR-1 to a new owner.

**Comment Code:**Federal Government Agency[EPA-5](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-6](#)

**Response:** Comment noted. See response to Comment EPA-2.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-7](#)

**Response:** See response to Comment EPA-2.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-8](#)

**Response:** The stationary source emissions presented in pounds per hour are inputs used in running the models in order to calculate the appropriate air concentrations for comparison with Federal and state ambient air quality standards. These results are found in Tables 4.3-3 and 4.3-4. As discussed in the text, these tables present results under existing production rates (1995) and the peak year of anticipated production rates. However, as the discussion indicates, the 1995 results are based on actual emissions (reflecting the fact that, as the comment notes, equipment does not run 24 hours a day). The 2001 projections are based on maximum permitted limitations, which generally assume that equipment does operate 24 hours a day. These higher limitations were used in modeling the 2001 projections in order to estimate the cumulative air impacts of commercial development. Tables 4.3-1 and 4.3-2 present the current and projected emissions in lb/hr for stationary sources and lb/day for mobile sources. Because numerous stationary sources exist, an average lb/hr emission rate was computed. (Note that the 1993 EIS served as the template for developing the tables for presentation in this EIS.) DOE agrees with EPA that a daily or annual emission levels would be useful for permitting purposes; however, DOE did not calculate them for these efforts. Instead DOE assumed that the anticipated production levels would increase emissions and thus require permit modifications under which the future owner would need to conduct additional review of applicable regulatory provisions (e.g., new source review and prevention of significant deterioration). For the purpose of this analysis, DOE conducted air quality modeling to determine the environmental impacts.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-9](#)

**Response:** See response to EPA-8.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-10](#)

**Response:** See Major Issue 1.6.1, Implementation Through the Sales Contract.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-11](#)

**Response:** See response to Comment EPA-4.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-12](#)

**Response:** See the response to Comment EPA-4.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-13](#)

**Response:** Comment noted. DOE will so advise EPA Region IX.

**Errata:** None.

## State Government Agencies

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**Comment Code:**State Government Agency[CDC-1](#)

**Response:** DOE agrees with the comment. See the revised text for the referenced Section contained within this document.

**Errata:** Insert the following after page ES-10, paragraph 3,sentence 4:

The risk of contamination is also mitigated somewhat by the fact that local water quality is typically nonpotable due to high total dissolved solids levels.

**Comment Code:**State Government Agency[CDC-2](#)

**Response:** Comment noted. See revisions to Section 2.2.

**Errata:** Change page 2.2-1, paragraph 4, sentence 4 to read:

These requirements include environmental compliance, financial responsibility, well activity approval, well closure approval, and proper conservation activities of the natural resource.

**Comment Code:**State Government Agency[CCV-1](#)

**Response:** Comment noted. See revision to 2.2 in Chapter 4.

**Errata:** Insert the following on page 2.2-1, paragraph 1, sentence3:

....(for commercial Class II injection wells).

**Comment Code:**State Government Agency[CCV-2](#)

**Response:** Comment noted. See revision to Section 2.2 in Chapter 4.

**Errata:** Insert the following after page 2.2-2, paragraph 4, sentence4:

The DOGGR's discretionary Permit to Conduct Well Operations could include conditions used for environmental

mitigation required in the NEPA/CEQA process.

**Comment Code:**State Government Agency[CCV-3](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**State Government Agency[CCV-4](#)

**Response:** Comment noted. See revision to Section 2.4.2. in Chapter4.

**Errata:** Change page 2.4-2, paragraph 4, sentence 5 to read:

Although Elk Hills is the fourth largest oil field in California, from 1994 to 1995 it ranked third among the top ten oil fields with the largest production decreases.

**Comment Code:**State Government Agency[CCV-5](#)

**Response:** Comment noted. See revision to Section 2.4.2. in Chapter4.

**Errata:** Change page 2.4-3, paragraph 1, sentence 6 to read:

Buena Vista ranks tenth among the California giant oil fields, with ultimate recovery of 100 million barrels or more.

**Comment Code:**State Government Agency[CFG-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-2](#)

**Response:** DOE and Kern County generally agree with the comment. See Major Issue 1.6, Mitigation Implementation Process. In addition, see response to Comment CFG-18 below with respect to modifications to the mitigation measures.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-3](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-4](#)

**Response:** The specific locations of future activities (for future oil and gas activities, principally drilling wells and laying pipelines) cannot be predicted, even for the No-Action Alternative. In part this is due to constantly ongoing analysis of information about the oil and gas reservoirs that results in frequently changing plans and partly due to the requirements of the Biological Opinion that require pre-activity surveys shortly before the activity is to occur and the relocation of the activity if protected species are found in the proposed area of activity. Thus specific location of future development cannot be predicted within any certainty. However, the existing mitigation measures under the Biological Opinion were written broadly enough to apply across NPR-1 and to avoid significant impacts at specific locations. The proposed purchaser has accepted. Whenever Occidental seeks a Section 10 permit immediately or to accept the transfer initially and subsequently seek a Section10 permit, DOE and Kern County believe, based on the experience under the



Biological Opinion, that broadly written Section 10 requirements would also be sufficient to mitigate potential impacts for those terms and conditions that are similar. As discussed in Section 4.5 of the document, the terms and conditions of the Biological Opinion and the Section 10 permit would not all be similar because of the difference between the Federal and private sector requirements under the Endangered Species Act.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-5](#)

**Response:** DOE is unable to limit the scope of future development projects as P.L. 104-106 requires that DOE sell all right title and interest in NPR-1. DOE believes that it is reasonably foreseeable to estimate future production levels by either the government or a private owner. It is highly speculative, however, to predict the scope, extent, or intensity of future development in detail after a 60-year or more period that oil and gas operations are likely to be ongoing. While there are no available plans or trends that would indicate that NPR-1 would be developed for agricultural or residential purposes subsequent to its use as an oil field, those are the two most likely alternatives for development. DOE believes that the DSEIS/PEIR was properly scoped, because it discusses (on page 2.5-1) that under commercial ownership the property could undergo future development for those purposes. The impacts of that development are also discussed on page 4.7-1. As the document indicates, such future development remains so remote as to be speculative. Agricultural opportunities would be limited because of terrain and soils. Future residential development would require a Kern County General amendment. As the document is a program EIR, any future development that involves changes to the current use, or this document, would require additional CEQA documentation and if determined to be significant, additional mitigation.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-6](#)

**Response:** DOE and Kern County agree with the comment. The discussion of applicable regulations has been amended.

**Errata:** Insert the following paragraph after page 3.4-1, paragraph3:

The seasonal drainages present on NPR-1 are generally under the jurisdiction of the California Department of Fish and Game. Under the Fish and Game Code (section 1600 et seq.), the Department must be notified and streambed alteration agreements must be obtained for work in the beds, banks or channels of lakes, ponds, rivers, or streams.

**Comment Code:**State Government Agency[CFG-7](#)

**Response:** Comment noted. As indicated in the discussion of Section 3.5, see the 1993 SEIS for more information about Plant and Animal Communities on NPR-1.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-8](#)

**Response:** DOE and Kern County disagree that the loss of these programs is a significant impact. The DSEIS/PEIR sets out the CEQA standards for significance, and the loss of these programs does not meet those standards. However, these programs are an element of the affirmative Federal obligation to protect the environment and DOE agrees that the loss of that obligation is potentially significant. See Major Issue 1.4, Loss of Affirmative Federal Obligation. Note that, as the DSEIS/PEIR indicates, some reductions in these programs have already occurred for reasons unrelated to the divestiture. Kern County also notes that the spectrum of Federal, state and local programs to protect endangered species, including the FESA and the CESA would still apply.

**Errata:** None.



**Comment Code:**State Government Agency[CFG-9](#)

**Response:** DOE and Kern County agree with the comment. No response required.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-10](#)

**Response:** See response to Comment CFG-5 regarding post oil and gas production development. With respect to off-site pipelines, as the DSEIS/PEIR discusses, the projected levels of production under all of the alternatives are less than past levels. Therefore, all needed transportation infrastructure has already been built and there are not expected to be any off-site requirements for pipelines. Seismic testing will occur both on-site and off-site by both the proposed purchaser of the and other private companies exploring for oil off-site. In DOE's experience, seismic testing does not cause significant impacts to plant and animal communities and, further, the difference in impacts between the No Action alternative and Proposed Action cannot be analyzed either quantitatively or qualitatively.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-11](#)

**Response:** Table 4.5-1 accompanies the section summary and as its title indicates, summarizes the impacts after mitigation. Table 4.5-9 indicates which impacts are significant and whether or not the impact can be mitigated to less than significant.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-12](#)

**Response:** DOE and Kern County disagree with the comment. The document does indicate which impacts are significant, quantifying them where possible. Also see Major Issue 1.6, Mitigation Implementation Process, and the discussion of CEQA requirements for identifying mitigation measures in EIR's.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-13](#)

**Response:** See response to comments CFG-4 and CFG-5. DOE and Kern County believe that the scope of impact disclosure was comprehensive, but agrees with the point requiring appropriate mitigation to cover areas that are more ecologically valuable than others.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-14](#)

**Response:** DOE and Kern County note CDFG's and DOI's position in their comment letters with respect to the VFHCP and agree that incorporation of Elk Hills into the VFHCP is unlikely as a short-term mitigation vehicle. See the response to Comment DOI-6. The DSEIS/PEIR addressed a number of alternative mitigation implementation methods of which the VFHCP was given as an example of one type (a regional HCP). Therefore, the DSEIS/PEIR did not rely upon the VFHCP. DOE and Kern County believe that VFHCP remains a valid example and further that a regional HCP is a reasonably foreseeable long-term alternative that a private owner may wish to pursue. Thus they are retained in the DSEIS/PEIR.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-15](#)

**Response:** See Major Issue 1.6, Mitigation Implementation Process. Further, to the extent that the private owner selects to develop the property in a manner different than is described in the FSEIS/PEIR, the document is a Program EIR and such changes would involve additional opportunity for review and development of mitigation measures. Also, note that as the DSEIS/PEIR discusses, mitigation measures designed to protect threatened and endangered species are also beneficial to other species of the plant and animal communities.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-16](#)

**Response:** See Major Issue 1.6, Mitigation Implementation Process and response to Comment CFG-12.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-17](#)

**Response:** DOE and Kern County agree with the comment. See Major Issue 1.6, Mitigation Implementation Process. Mitigation measures resulting from this process will meet these criteria.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-18](#)

**Response:** These measures will not be designated as required until the DOE ROD and final approval by Kern County. See Major Issue 1.6, Mitigation Implementation Process. These suggested changes also appear to reflect limiting future development to the limits in the 1995 Biological Opinion. See Major Issue 1.2, Relationship of Alternatives to the Biological Opinion. With respect to BRM 18, an HCP is required as part of a Section 10 permit, the proposed purchaser is likely to seek and therefore, DOE and Kern County do not believe that it should be deleted from the document. However, the measure has been revised to add small-scale and medium-scale HCP's as alternatives to participating in a regional HCP. With respect to the compensation ratios, the ratios in the document are considered to be estimates; the final ratios would be negotiated between the new owner and the appropriate regulatory agency.

**Errata:** Change page 4.5-31 BRM-16 in Table 4.5-8 to read:

Transfer Section 7 permit with all its terms and conditions, including the requirements for the establishment of a 7,075 acre conservation area.

**Comment Code:**State Government Agency[CFG-19](#)

**Response:** Comment noted and DOE and Kern County generally agree with it. See Major Issue 1.6, Mitigation Implementation Process, for the process for incorporating mitigation in the ROD, MAP, Mitigation Findings, Mitigation Monitoring Program, and Notice of Determination.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-20](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation, which discusses how DOE plans to balance its environmental obligations with the requirements of P.L. 104-106.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-21](#)

**Response:** DOE and Kern County greatly appreciate the efforts of CDFG to prepare this draft MOU and have incorporated its measures as potential mitigation in Section 4.5 as indicated in the revisions to this document. Most

mitigation measures provided in the CDFG MOU were already included in the DSEIS/PEIR. Regarding the mitigation measures that were not already included in Section 4.5 of the DSEIS/PEIR, see the revisions below. It should be noted that these measures were included to assure that the document is as inclusive of mitigation measures as possible. Final determination of mitigation measures to be actually adopted will be determined in the NEPA ROD process, future CEQA processes and negotiations between the new owner and the regulatory agencies.

**Errata:** Change the following mitigation measures below Table 4.5-8 on page 4.5-32:

Memorandum of Understanding Mitigation measures (MOUMs). In addition to those measures previously listed, the draft CESA MOU by and between the Elk Hills Unit Operator (EHUO) and the California Department of Fish and Game (CDFG) proposes additional mitigation measures.

MOUM-1: At least thirty days before initiating ground-disturbing activities, the EHUO should designate a representative responsible for communications with CDFG and overseeing compliance with the CESA MOU. CDFG should be notified in writing of the representative's name, business address and telephone number, and should be notified in writing if a substitute representative is designated.

MOUM-2: The EHUO should notify CDFG fourteen days before initiating ground-disturbing activities. CDFG should specify other notification timing at its discretion.

MOUM-3: The EHUO should clearly delineate the boundaries of the project site by posting stakes, flags, and/or rope or cord, and should post signs and place fencing as necessary to exclude vehicle traffic unrelated to project construction.

MOUM-4: All project-related parking and equipment storage should be confined to the construction site or to previously disturbed off-site areas. Undisturbed areas and off-site Covered Species habitat should not be used for parking or equipment storage.

MOUM-5: The EHUO should conduct an orientation program for all persons who will work on-site during construction. The program should consist of: 1) a brief presentation from a person knowledgeable about the biology of the Covered Species, the terms of the CESA MOU and CESA; 2) a discussion of the biology of the Covered Species, their habitat needs, their status under CESA, and management measures of the CESA MOU; 3) a fact sheet containing all this information; and 4) upon completion of the orientation, employees shall sign a form stating that they attended the program and understand all protection measures.

MOUM-6: Exclusion zones should be established to protect dens, nests and burrows as necessary.

MOUM-7: At sites likely to support blunt-nosed leopard lizard, the EHUO should evaluate potential for take of that species before conducting ground-disturbing work. If there is a likelihood of take, the EHUO should modify the project, or employ relocation or other take-avoidance measures subject to CDFG's written or verbal approval.

MOUM-8: Disturbed areas should be revegetated within two years from the cessation of disturbance, given normal rainfall for two consecutive years.

MOUM-9: For specific construction projects, the EHUO should conduct compliance inspections once a week during construction. CDFG should require summary compliance reports on a monthly or longer basis for long-term projects, and should require a final compliance report within 45 days of project completion.

MOUM-10: The EHUO should allow CDFG representatives access to the project site to monitor compliance with the terms and conditions of the CESA MOU.

MOUM-12: The EHUO should provide habitat management lands prior to disturbances. The habitat lands should be on or adjacent to the EHU, and CDFG should require that they be adjacent to other protected lands.

MOUM-13: The habitat management lands acreage is based upon biological assessment of the project's impact on the

Covered Species and an estimate of the acreage necessary to provide for adequate biological carrying capacity at a replacement location.

MOUM-14: The EHUO should agree to provide a recent preliminary title report and initial hazardous materials survey report for the habitat management lands to CDFG.

MOUM-15: Prior to the transfer of habitat management lands to CDFG, the EHUO should inspect the habitat lands and remove any debris located there on. A biologist acceptable to CDFG should be contracted to recommend suitable protection for the habitat management lands.

MOUM-15: If fee title to the habitat management lands is transferred to CDFG or to an approved non-profit corporation, the EHUO agrees to provide to CDFG or the non-profit corporation, a check in an amount to be determined by analysis is of the scope of management, but at least \$375/acre, drawn from a banking institution located within California for use as principal for a permanent capital endowment. Interest from this amount should be available for the operation, management and protection of the habitat management lands. Operation, management, and protection activities should include reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action designed to protect or improve the habitat values of the habitat management lands. The endowment principal should not be drawn upon unless such withdrawal is deemed necessary by CDFG or non-profit corporation to ensure the continued viability of the species on the habitat management lands. Monies received by CDFG pursuant to this provision should be deposited in a special deposit account established pursuant to Government Code 16370. CDFG should pool the endowment with other endowments for the operation, management and protection of habitat management lands for local populations of the Covered Species.

MOUM-16: The EHUO should agree to reimburse CDFG for reasonable expenses incurred as a result of the approval and implementation of the project, including costs of title and document review, expenses incurred from other state agency reviews, CDGF costs directly related to administration of the CESA MOU, including travel, personnel, and overhead. The Parties estimate that this project would create an additional cost to CDFG of no more than \$3,000.00 annually.

**Comment Code:**State Government Agency[CEC-1](#)

**Response:** DOE and Kern County agree with the comment. If development levels exceed those allowed under the 1995 Biological Opinion, the new owner would have to negotiate with USFWS and adopt the mitigation measures provided in a Section 10 permit.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-2](#)

**Response:** See Major Issue Sections 1.6.1, Implementation Through the Sales Contract, and 1.6.2, Implementation Through Other Permitting Processes.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-3](#)

**Response:** Comment noted. See Major Issues Section 1.6.1, Implementation Through the Sales Contract, Section 1.6.2, Implementation Through Other Permitting Processes, response to Comment CFG-18 (providing for a minimum compensation of 3 to 1), and revisions to DSEIS/PEIR Tables 4.5-4, 4.5-5, and 4.5-8.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-4](#)

**Response:** Comment noted. These measures are included in the DSEIS/PEIR. However, see Major Issues Sections 1.6.1, Implementation Through the Sales Contract, and 1.6.2, Implementation Through Other Permitting Processes. Also it should be noted that DOGGR permitting requirements include rehabilitation of the well pads after plugging and abandonment (this would not include other infrastructure). See also the DOE response regarding habitat restoration, Comment DOI-7.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-5](#)

**Response:** Comment noted with respect to the best alternative. See Major Issue 1.1, DOE's Preferred Alternative. The DSEIS/PEIR Alternative to the Proposed Action is divestiture involving continued government ownership of the land with commercial petroleum production. This Alternative is fully developed and analyzed in the DSEIS/PEIR. However, because the impacts are largely a combination of the impacts of the Proposed Action and the No-Action Alternative, the discussion of this alternative incorporates much of the discussion of impacts by reference rather than repeating it. Leasing of NPR-1 to private entities under BLM management is Scenario 1 under the Alternative. For the reasons discussed in the DSEIS/PEIR, this Scenario is not sufficiently different from Scenario 2, (transfer of NPR-1 to a federally owned corporation) to justify inclusion as a separate alternative from Scenario 2 since impacts from both Scenarios are expected to be nearly identical.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-6](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-7](#)

**Response:** Generally, DOE and Kern County agree with this observation. However, with regard to the comment that there is no assurance that the NPR-1 biological resources will be protected, DOE and Kern County disagree. See Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-8](#)

**Response:** Comment noted. Public Law 104-106 allows the transfer of an otherwise non-transferable Section 7 permit (i.e., 1995 Biological Opinion) to the new owner. The proposed purchaser of NPR-1, Occidental, has accepted the terms and conditions of the 1995 Biological Opinion. Occidental must establish a 7,075 acre conservation area and habitat management program by Nov. 1998. With regard to the implementation of mitigation measures, see Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-9](#)

**Response:** Comment noted with respect to the mitigation measures. However, the new owner will be under no obligation to "consult" with USFWS either before or after 2035 as consultation usually is used under Section 7. Further, P.L. 104-106 does not authorize the modification of the 1995 Biological Opinion. Instead, as the DSEIS/PEIR indicates, the new owner would need to seek a Section 10 permit when the Biological Opinion expires or the new owner wishes to exceed its limits. Obtaining a Section 10 permit when the Biological Opinion expired would be required under the Endangered Species Act. See also Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-10](#)

**Response:** Comment noted. See Major Issue 1.6, Mitigation Implementation Process, Major Issue 1.4, Loss of Affirmative Federal Obligation, Comment CFG-21 and the response to Comment EDF-3.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-11](#)

**Response:** Comment noted. See response to Comment CEC-4.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-12](#)

**Response:** Comment Noted. See response to Comment CEC-5

**Errata:** None.

### **Local Government Agencies**

**Comment Code:**Local Government Agencies[DOA-1](#)

**Response:** Comment Noted. No response Required

**Errata:** None.

**Comment Code:**Local Government Agencies[KCM-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Local Government Agencies[KCW-1](#)

**Response:** The Section referred to in the comment is shown as privately held land on the U.S. Department of the Interior Bureau of Land Management map for the Taft quadrangle. Figure 3.9-1 on page 3.9-9 is intended to show access to and across NPR-1 and NPR-2 sites. This map does not show the Taft Sanitary Landfill, so it does not give an erroneous impression that the landfill is outside the reserve.

**Errata:** None.

**Comment Code:**Local Government Agencies[KCW-2](#)

**Response:** The area in question is entirely within NPR-2 (Section25), not NPR-1. Although different scenarios involving the future use of NPR-2 are evaluated in the DSEIS/PEIR for the purpose of evaluating cumulative impacts, the proposed action being considered is strictly the sale of NPR-1. The current plan, therefore, is for NPR-2 to remain in the hands of the Federal government without any change in access rights across that reserve.

**Errata:** None.

**Comment Code:**Local Government Agencies[KCW-3](#)

**Response:** Figure 2.5-1 on page 2.5-3 of the DSEIS/PEIR displays the habitat zones designated in the draft Kern

County Valley Floor Habitat Conservation Plan (VFHCP). Most of NPR-2 is designated as a red zone, meaning that it would be reserved as natural habitat if the draft plan were adopted. This map is simply intended to show general areas, not site-specific locations, considered valuable habitat by Kern County, the California Division of Oil, Gas, and Geothermal Resources, and others who contributed to the draft plan. It is not intended to imply that the Taft Sanitary Landfill specifically would be subjected to the VFHCP or that the VFHCP takes precedence over another conservation plan developed by the Kern County Waste Management Department.

**Errata:** None.

**Comment Code:**Local Government Agencies[KCW-4](#)

**Response:** Section 3.2.3 starting on page 3.2-2 of the DSEIS/PEIR identifies the locations of all sites on NPR-1 where there is hazardous constituent contamination, a hazardous waste transfer area, or a non-hazardous waste landfill or area. All of these locations are identified by number and letter coordinates (e.g., 27R, 4G, etc.), which are keyed to the NPR-1 grid map shown on in Figure 1.3-2 on page 1.3-3. Therefore, DOE believes the locations of all sites of interest to the commenter are satisfactorily shown and that no new maps are needed.

**Errata:** None.

**Comment Code:**Local Government Agencies[KCW-5](#)

**Response:** There is no need to reaffirm this vehicular access because the area in question falls entirely within NPR-2, not NPR-1. Possible scenarios involving future uses of NPR-2 are considered in the DSEIS/PEIR only for the purpose of evaluating cumulative impacts associated with the proposed action, which is strictly the sale of NPR-1. The current plan is to keep NPR-2 under Federal ownership without any change in access across that reserve.

**Errata:** None.

**Comment Code:**Local Government Agencies[UAP-1](#)

**Response:** If the operations under the proposed action remain constant or increase slightly then the potential/allowable emissions will not increase; however, under the proposed action, the operations could potentially expand substantially and thus result in an increase of emissions. To determine the maximum increase, the EIS used actual and potential emissions, the methodology that would be required to modify the air permits.

**Errata:** None.

**Comment Code:**Local Government Agencies[UAP-2](#)

**Response:** The comment is accurate that the proposed action would be a change of ownership. Under the proposed action, however, production is expected to increase, thus resulting in expanded operations and increased actual and allowable emission levels. With the expected increase, new or revised permits would be needed.

**Errata:** None.

**Comment Code:**Local Government Agencies[UAP-3](#)

**Response:** Comment noted. The "textual modifications" noted in the comment appear in the following comments #4 through 9.

**Errata:** None.

**Comment Code:**Local Government Agencies[UAP-4](#)

**Response:** Comment noted. See the revisions for Section D.2.



**Errata:** Revise Table D. 2-1 to reflect the following changes:

- change the 8 hour state standard for CO from 9 to 9.0 ppm;
- delete the duplicate listing of the one hour standard for NO<sub>2</sub>;
- change the one hour standard for NO<sub>2</sub> in units of µg/m<sup>3</sup> from 131 to 470;
- add the one hour state standard for SO<sub>2</sub> of 0.25 ppm;
- add the 24 hour standard for SO<sub>2</sub> in units of µg/m<sup>3</sup> of 105; and
- change the text describing the state standard for Visibility-reducing Particles from "Insufficient amount..." with "In sufficient amount. . ."

**Comment Code:**Local Government Agencies [UAP-5](#)

**Response:** Comment noted. It appears that the correct table reference for the comment is D.2-3. See the revisions to Table D.2-3 ("Kern County Attainment Status") in Section D.2.1 and Table 3.3-1.

**Errata:** Revise Table D.2-3 and Table 3.3-1, Kern County Attainment Status, to reflect the following changes:

- The attainment status for the state standard for Ozone to "Severe Nonattainment"; and
- The attainment status for the state standard for Carbon Monoxide to "Attainment".

Delete on page 3.3-5, paragraph 2, sentence 3.

Delete on page 3.3-6, paragraph 1, sentence 7 the following:

"including the Bakersfield nonattainment area."

**Comment Code:**Local Government Agencies [UAP-6](#)

**Response:** Commented noted. See the revisions to Section D.2.3.

**Errata:** Change page D.2-10, paragraph 2 to read:

Of the four monitoring stations in Kern County where samplers were in operation throughout the year, only the Bakersfield Golden State Highway site measured in exceedance of the annual NAAQS for PM<sub>10</sub> (60 ug/m<sup>3</sup> as an arithmetic mean) in 1995. All four stations with PM<sub>10</sub> monitoring, however exceeded the California standard (50ug/m<sup>3</sup>), while the federal 24-hour standard (150 ug/ m<sup>3</sup>) was exceeded at only one station (Oildale). These data show that PM<sub>10</sub> emissions continue to be a major air pollution problem in the county (DOE 1993).

**Comment Code:**Local Government Agencies [UAP-7](#)

**Response:** Comment noted. See the revised text for Section D.2.3.

**Errata:** Delete page D.2-11, paragraph 1, sentence 5.

**Comment Code:**Local Government Agencies [UAP-8](#)

**Response:** The area-specific meteorological data provided by NPR staff did not include information regarding actual average days of precipitation; consequently, the PART5 default value of 140 days per year was used. DOE recently determined that the average precipitation for the area is 34 days per year. The model was rerun to determine the impacts of the reduced precipitation and DOE's current practice of watering disturbed areas including unpaved roads. (Approximately 60,000 gallons per day of water are applied.) The resulting revised estimates of emission and ambient concentrations of PM<sub>10</sub> are slightly lower than the values presented in the DSEIS/PEIR, but do not change the conclusion presented in the DSEIS/PEIR.



**Errata:** None.

**Comment Code:**Local Government Agencies[UAP-9](#)

**Response:** In changing from government to private operations; the staff is expected to be reduced by 75 percent. (See response to Comment PEN-5.) In addition, DOE proposes to sell NPR under a unit operating agreement; therefore, employment levels are not expected to increase as a result of multiple ownership. See also Major Issue 1.3, Reconsultation Under the Biological Opinion.

**Errata:** None.

## Native American Organizations

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**Comment Code:**Local Government Agencies Native American Organization[RG1-1](#)

**Response:** DOE and Kern County recognize the cultural sensitivity of the region to Native Americans and will continue to work with those organizations as DOE implements the mitigation measures under the Programmatic Agreement with the SHPO described in the revised Section 4.6 in Chapter 4.

**Errata:** None

**Comment Code:**Local Government Agencies Native American Organization[RG1-2](#)

**Response:** DOE and Kern County acknowledge the concern expressed concerning the preservation of areas containing human remains. However, P.L.104-106 has directed DOE to sell all right, title and interest in NPR-1, so DOE lacks the authority to retain control over those areas or to assure that the areas continue to be under the protections of the National Historic Preservation Act. However, as discussed in Major Issue 1.8, Protecting Native American Cultural Resources, DOE hopes to identify a Federal agency that can join in the negotiations of land to be set aside under the 1995 Biological Opinion and can represent the concerns of the Native Americans in those negotiations. DOE intends to discuss this matter with the proposed purchaser as well.

**Errata:** None

**Comment Code:**Local Government Agencies Native American Organization[RG1-3](#)

**Response:** DOE and Kern County acknowledge the concern expressed in the comment, and believe that these concerns would be appropriate for inclusion in the negotiations over the establishment of the conservation area. See the response to Comment RG1-2.

**Errata:** None

**Comment Code:**Local Government Agencies Native American Organization[RG1-4](#)

**Response:** DOE will verify that a Native American conducted a second ceremony; if not, NPR-1 staff will be directed to provide that opportunity to you and other Native Americans with traditional ties to Elk Hills.

**Errata:** None.

**Comment Code:**Local Government Agencies Native American Organization[RG1-5](#)

**Response:** Comment noted. At this time, a repository for the artifacts has not been determined. DOE will work with concern Native Americans and the SHPO to determine an appropriate repository for the artifacts.

**Errata:** None

**Comment Code:**Local Government Agencies Native American Organization[RG1-6](#)

**Response:** The document is a Program Environmental Impact Report (PEIR) under CEQA. A PEIR is used under CEQA where the full extent of a project has not been identified and future analysis might be required under CEQA. Significant non-oil and gas related development of the property would require additional analysis under CEQA.

**Errata:** None

**Comment Code:**Local Government Agencies Native American Organization[RG2-1](#)

**Response:** DOE has recommended to the SHPO that four prehistoric sites were eligible for inclusion on the National Register of Historic Places and the SHPO has concurred in that recommendation. In addition, DOE has recommended to the SHPO that an Elk Hills Archaeological District be recognized. See the revised Section 4.6 in Chapter 4 for a further discussion of these issues.

**Errata:** None

**Comment Code:**Local Government Agencies Native American Organization[RG2-2](#)

**Response:** DOE and Kern County acknowledge the concern expressed concerning the preservation of these areas. However, P.L. 104-106 has directed DOE to sell all right, title and interest in NPR-1, so DOE lacks the authority to retain control over those areas or to assure that the areas continue to be under Federal protection. Since these areas will no longer be under Federal protection and involve significant prehistorical Archaeological resources, DOE would need to mitigate the impacts of the loss of protection, which DOE has recommended be accomplished through a Programmatic Agreement with the SHPO and additional data gathering and analysis. Therefore, DOE cannot commit to precluding these areas from further surveys or other impacts. However, it remains to be seen what measures Occidental may be willing to adopt. See Major Issue 1.6 Mitigation Implementation Process. Further, DOE will continue to work with Native American organizations to find other ways of addressing their concerns within the constraints of P.L. 104-106.

**Errata:** None

**Comment Code:**Local Government Agencies Native American Organization[RG2-3](#)

**Response:** DOE intends to work with the SHPO toward the objective of establishing a Elk Hills Archaeological District. See the revised Section 4.6 in Chapter 4.

**Errata:** None

**Comment Code:**Native American Organization[TCC-1](#)

**Response:** DOE and Kern County acknowledge the need to protect culturally sensitive sites, and the need to continue to work with Native Americans. See Major Issue 1.5, Native American Cultural Resources.

**Errata:** None.

**Comment Code:**Native American Organization[TCC-2](#)

**Response:** See the revised Section 4.6 in Chapter 4.

**Errata:** See revised Section 4.6.

**Comment Code:**Local Government Agencies Native American Organization[TCC-3](#)

**Response:** DOE and Kern County are aware of this study which has only recently become available (mid-September,

1997). As the study is very recent, the results are not included in the revised Section 4.6, Cultural Resources. However, the results of the study will be included in the Programmatic Agreement and will be considered in developing and implementing mitigation under the Programmatic Agreement.

**Errata:** None.

**Comment Code:**Native American Organization[TCC-4](#)

**Response:** DOE and Kern County acknowledge this concern and will continue to work with Native American Organizations. See Major Issue 1.5, Native American Cultural Resources.

**Errata:** None.

**Comment Code:**Native American Organization[TCC-5](#)

**Response:** DOE and Kern County acknowledge this concern and will continue to work with Native American organizations with regard to their concerns. See Major Issue 1.5, Native American Cultural Resources.

**Errata:** None.

**Comment Code:**Native American Organization[TCC-6](#)

**Response:** DOE and Kern County acknowledge this concern. See Major Issue 1.5, Native American Cultural Resources.

**Errata:** None.

**Comment Code:**Native American Organization[TCC-7](#)

**Response:** See the revised Section 4.6 in Chapter 4 for a discussion of the ongoing studies.

**Errata:** None.

**Comment Code:**Native American Organization[TCC-8](#)

**Response:** A letter dated September 17, 1997 from DOE addressing these issues was sent to the affected individuals and organizations. A copy of this letter is in the appendix.

**Errata:** None.

## **Private Industry**

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**Comment Code:**Private Industry[AER-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[AER-2](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[AER-3](#)

**Response:** DOE and Kern County disagree that the transfer of the Biological Opinion would provide the same level of protection for threatened and endangered species as under Federal ownership, to the extent that as noted on page 2.5-2 of the DSEIS/PEIR, the Biological Opinion would only mitigate some of the loss of Federal ownership and the Biological Opinion would only cover the commercial operations in the near-term. Additional mitigation beyond the terms and conditions of the Biological Opinion would have to be applied if the loss of the Federal government's affirmative obligation to conserve and restore threatened and endangered species were to be completely mitigated. Occidental may not necessarily implement the type of conservation programs that Federal agencies are obligated to implement under Section 7(a)(1).

**Errata:** None.

**Comment Code:**Private Industry [AER-4](#)

**Response:** DOE and Kern County disagree with this comment. See Major Issue 1.4, Loss of Affirmative Federal Obligation. As the DSEIS/PEIR indicates, for several resources the degree of impacts would be greater under private ownership if, as expected, production levels are higher. These greater impacts could occur while still complying with applicable regulations, as the DSEIS/PEIR assumes.

**Errata:** None.

**Comment Code:**Private Industry [AER-5](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry [AER-6](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry [CHV-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry [CHV-2](#)

**Response:** DOE disagrees with the comment because transfer of NPR-1 to private ownership will result in a loss of affirmative Federal obligations established by Section 7(a) of the Endangered Species Act. See Major Issues Section 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry [CHV-3](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry [CHV-4](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-5](#)

**Response:** DOE and Kern County agree that with respect to mitigation, CEQA is more inclusive than NEPA. DOE does not agree with the implication that CEQA would fully compensate for the loss of the affirmative Federal obligation to protect the environment. See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-6](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-7](#)

**Response:** The affirmative Federal obligation to protect endangered species and cultural resources on NPR-1 will not be the same once NPR-1 is in private ownership. See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-8](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-9](#)

**Response:** DOE and Kern County are uncertain as to which duplication of efforts this comment refers to. Therefore, there is insufficient information to respond. DOE notes, however, that any incremental state and local government oversight activities associated with the privatization of the site have the potential to be funded through the expected increase in state and local government revenues that occur as a result of privatizing NPR.

**Errata:** None.

**Comment Code:**Private Industry[CHV-10](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation. DOE and Kern County also disagree, for the reasons indicated in the DSEIS/PEIR, that the commercial development case would have impacts equivalent to the government development case.

**Errata:** None.

**Comment Code:** [CHV-11](#)

**Response:** DOE agrees that P.L. 104- 106 should not be interpreted as directing DOE to disregard conservation practices. DOE disagrees that MED would be in conflict with the affirmative Federal obligation to protect the environment. They are not mutually exclusive.

**Errata:** None.

**Comment Code:**Private Industry[CHV-12](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-13](#)

**Response:** Comment noted. As the DSEIS/PEIR indicates, the development cases are intended to include all levels of development up to the upper bound of the development case. The lower bound represents DOE's estimate of a reasonably expected lower bound.

**Errata:** None.

**Comment Code:**Private Industry[CHV-14](#)

**Response:** DOE and Kern County disagree that there are no differences in environmental impacts between Alternatives. See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-15](#)

**Response:** DOE believes that the DSEIS/PEIR fairly reflects the proposed structure of the interests to be sold.

**Errata:** None.

**Comment Code:**Private Industry[CHV-16](#)

**Response:** DOE and Kern County disagree with the comment. NPR-1 has numerous state permits and significant expansion of NPR-1 production and exploration might very well require them to comply with CEQA before issuing any new permits.

**Errata:** None.

**Comment Code:**Private Industry[CHV-17](#)

**Response:** See response to Comments CHV-11 to CHV-14, (General Comment 3).

**Errata:** None.

**Comment Code:**Local Government Agencies Private Industry[CHV-18](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-19](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Local Government Agencies Private Industry[CHV-20](#)

**Response:** Mitigation levels under DOE ownership are clearly described in Section 4.5 of the DSEIS/PEIR. See the CDFG Comment Letter. CDFG has included many of the Biological Opinion's mitigation measures in a draft proposed MOU with the potential new owner.

**Errata:** None.

**Comment Code:**Private Industry[CHV-21](#)

**Response:** If the government continued to operate NPR-1 through its useful life as an oil field and it was still an important conservation area for threatened and endangered species, the lack of a profit motive on the part of the government would mean that a reasonably foreseeable outcome would be to create a permanent conservation area. There is a precedent for this type of action in the DOE's recommendation with respect to NPR-2, as discussed in the DSEIS/PEIR. Also in closing military bases, the Department of Defense has deferred to FWS on portions of the bases that were important for conservation rather than sell them off for commercial development.

**Errata:** None.

**Comment Code:**Private Industry[CHV-22](#)

**Response:** See response to Comment CHV-21.

**Errata:** None.

**Comment Code:**Private Industry[CHV-23](#)

**Response:** Comment noted. See revised Section 4.6, Cultural Resources provided in response to Comment AG1-1.

**Errata:** None.

**Comment Code:**Private Industry[CHV-24](#)

**Response:** Commented noted. DOE agrees with the commenter. See revised Section.

**Errata:** Replace paragraph 1 on page ES-10 with the following:

The third major impact from the future development of NPRs would be the possibility that state ambient air quality standards for PM<sub>10</sub> could be exceeded off-site. On-site, Federal ambient air quality standards for NO<sub>2</sub> and state ambient air quality standards for PM<sub>10</sub> and SO<sub>2</sub> might be exceeded. As stated in Section 4.3.1, for the two years analyzed, no violations of Federal or state ambient air quality standards were predicted in the areas surrounding NPR-1 with one exception: off-site particulate concentrations (PM<sub>10</sub>) under all cases are estimated to exceed the state ambient air quality standards for both years. 2001 NO<sub>x</sub> emission concentrations on-site are also expected to exceed Federal ambient air quality standards; while 2001 SO<sub>2</sub> concentrations and PM<sub>10</sub> concentrations for both years on-site are estimated to exceed state standards. The on-site exceedances are expected to occur where the public does not have access.

**Comment Code:**Private Industry[CHV-25](#)

**Response:** DOE agrees that oil spill rates and volumes could decline with future capital improvements. The main point of Section 4.10, however, is that even assuming an increase in future oil spills corresponding to increased production levels, oil spill risk levels are not considered to be significant. Accelerated capital improvements in the future, by either government or commercial entities, would not change this conclusion.

**Errata:** Insert the following after page ES-10, paragraph 2, sentence3:

Assuming an increase in future oil spills corresponding to increased production levels, oil spill risk levels are not considered significant.

**Comment Code:**Private Industry[CHV-26](#)



**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-27](#)

**Response:** Comment noted. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:**Private Industry[CHV-28](#)

**Response:** Comment noted. No response necessary.

**Errata:** None.

**Comment Code:**Private Industry[CHV-29](#)

**Response:** Issues relevant to NEPA were included in the document even if they were not relevant to CEQA due to the dual purpose of the document.

**Errata:** None.

**Comment Code:**Private Industry[CHV-30](#)

**Response:** The requirements for CEQA are noted. However, DOE and Kern County disagree with this comment, since these differences are not germane to an understanding of the significant impacts of the Proposed Action and Alternatives.

**Errata:** None.

**Comment Code:**Private Industry[CHV-31](#)

**Response:** DOE and Kern County disagree that the term is unclear. The bullets under the term provide the necessary definition. The important procedural aspects of NEPA and CEQA are explained in the DSEIS/PEIR.

**Errata:** None.

**Comment Code:**Private Industry[CHV-32](#)

**Response:** See response to Comment CHV-10. In this context the reference to affirmative Federal obligation is Section 7(a)(1) of the ESA. Section 7(a)(1) is implemented by the Federal agency owning a property. FWS would not own NPR-1 if it were sold to one or more oil companies and therefore there would be a loss of affirmative Federal obligation unless appropriate mitigation measures are placed in the sales agreement, the Final EIR, and/or the 2081 permit. See Major Issue 1.4, Loss of Affirmative Federal Obligation and response to Comment CHV-10.

**Errata:** None.

**Comment Code:**Private Industry[CHV-33](#)

**Response:** DOE and Kern County agree that the timing and pace would not adversely impact cultural resources. See the revision to Table 2.1-1 and the revised Section 4.6, Cultural Resources.

**Errata:** Delete the following in the second sentence in bullet six of Table 2.1-1 on Page 2.1.2:

"and cultural resources."



**Comment Code:**Private Industry[CHV-34](#)

**Response:** DOE and Kern County do not believe that references to biodiversity should be removed because it is generally accepted that any habitat disturbance can threaten biodiversity. DOE and Kern County agree with the suggestion that a definition of biodiversity be added, and have done so in the glossary.

**Errata:** Insert the following definition of biodiversity to the glossary on page GLS-1:

Biodiversity can be defined as "the variety of organisms considered at all levels, from genetic variants belonging to the same species through species to arrays of genera, families, and still higher taxonomic levels." Biodiversity also includes "the variety of ecosystems, which comprise both the communities of organisms within particular habitats and the physical conditions under which they live." (E.O. Wilson, 1992, The Diversity of Life, W.W. Norton & Co., New York, NY.). According to DOE, " ecological organization, and therefore biodiversity, is a hierarchically arranged continuum, and reduction of diversity at any level will have effects at the other levels." (CEQ, 1994, Incorporating Biodiversity Considerations Into Environmental Impact Analysis Under the National Environmental Policy Act).

**Comment Code:**Private Industry[CHV-35](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-36](#)

**Response:** The Kern County General Plan designation for NPR-1 is "non-jurisdictional." The Kern County zoning ordinance designation is either Limited Agricultural or Exclusive Agricultural as the quoted material indicates. No revision is required.

**Errata:** None.

**Comment Code:**Local Government Agencies Private Industry[CHV-37](#)

**Response:** Comment noted. See revision to Section 2.2 in Chapter 4.

**Errata:** Change page 2.2-1, paragraph 4, sentence 4 to read:

These requirements include environmental compliance, financial responsibility, well activity approval, well closure approval, and proper conservation activities of the natural resource.

**Comment Code:**Private Industry[CHV-38](#)

**Response:** See responses to Comments to CHV-11, CHV-13, and CHV-14.

**Errata:** None.

**Comment Code:**Private Industry[CHV-39](#)

**Response:** They do represent the same unproved probable reserves. For further explanation of risk factors, see the NPR-1 Long Range Plan referenced in the document. No further response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-40](#)

**Response:** Comment noted. See the revised text for Section 2.2 contained within this document.

**Errata:** Change "CCOGP" in Footnote 5 on page 2.2-4 to read:

"CCCOGP"

**Comment Code:**Private Industry[CHV-41](#)

**Response:** Comment noted. No responses required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-42](#)

**Response:** See response to Comment CHV-15.

**Errata:** None.

**Comment Code:**Private Industry[CHV-43](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-44](#)

**Response:** DOE and Kern County disagree with implication of this comment that Section 10 permits would result in the same level of protection as a Section 7 consultation. Accordingly, sentence 3 has not been revised. However, Section 10 permits and Section 7 consultations do involve similar approaches to mitigation: take avoidance and habitat conservation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-45](#)

**Response:** The source of the information was the DOGGR cited in the Chapter References, which was the most current published information when the DSEIS/PEIR was published. The DSEIS/PEIR indicates the date of the information. No revision is required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-46](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-47](#)

**Response:** Comment noted. The document already indicates the small NPR-1 range of the Tipton Kangaroo rat. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-48](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-49](#)

**Response:** See response to Comment CHV-21.

**Errata:** None.

**Comment Code:**Private Industry[CHV-50](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-51](#)

**Response:** This comment appears to acknowledge the difference between a Section 7 consultation and a Section 10 permit. However, while technically different, the two do require similar approaches to mitigation, i.e. take avoidance and habitat conservation. See response to Comment DOI-6 and CHV-14.

**Errata:** See Revised Section 4.6.

**Comment Code:**Private Industry[CHV-52](#)

**Response:** See revised Section 4.6, Cultural Resources provided in response to Comment AG1-1.

**Errata:** See Revised Section 4.6.

**Comment Code:**Private Industry[CHV-53](#)

**Response:** See response to Comment CHV-24.

**Errata:** None.

**Comment Code:**Private Industry[CHV-54](#)

**Response:** See response to Comment [CHV-25](#)

**Errata:** None.

**Comment Code:**Private Industry[CHV-55](#)

**Response:** DOE and Kern County agree with the comment. See the revised text in Section 3.2.

**Errata:** Change page 3.2-1, paragraph 5, sentence 2 to read:

"and NPR-2 are" with "is"

**Comment Code:**Private Industry[CHV-56](#)

**Response:** Section 3.2.3 starting on page 3.2-2 of the DSEIS/PEIR identifies, in narrative form, the location and status of each site contaminated with hazardous substances, each hazardous waste transfer station, and each non-hazardous waste facility on NPR-1. Readers desiring more information on these sites are referred to the ATI Phase I Assessment of NPR-1, published in 1997. DOE believes this text and reference give readers all the information needed and that a summary table repeating this same information is unnecessary.

**Errata:** None.

**Comment Code:**Private Industry[CHV-57](#)

**Response:** The statement quoted by the comment is based on a review of Permits to Operate issued by the San Joaquin Valley Unified Air Pollution Control District.

**Errata:** Change page 3.3-1, paragraph 4, last sentence, to read:

"SO<sub>2</sub>" with "sulfur compound"

Insert the following footnote on page 3.3-1, paragraph 4, last sentence:

Based on a review of Permits to Operate issued by the San Joaquin Valley Unified Air Pollution Control District.

**Comment Code:**Private Industry[CHV-58](#)

**Response:** Comment noted. See revision to Section 3.3.1 in Chapter4.

**Errata:** Delete the following from 3.3-1 , paragraph 7, sentence 1:

"ATC's and"

**Comment Code:**Private Industry[CHV-59](#)

**Response:** Comment noted. As stated in the document, DOE chose to apply for two separate Title V permits for two areas: 1) 35 R Gas Plant Source and 2) Western Light Oil Source. The Title V applications cover all applicable equipment associated with these areas. No further clarification is necessary in the text under the scope of this document

**Errata:** None.

**Comment Code:**Private Industry[CHV-60](#)

**Response:** Comment noted. The document has been modified accordingly.

**Errata:** Change page 3.3-3, paragraph 3, sentence 6 to read:

In general, the larger IC engines did not meet the BARCT standard in 1995. However, with the implementation of appropriate control technology, they are expected to meet the SJVUAPCD limits required by 2001.

**Comment Code:**Private Industry[CHV-61](#)

**Response:** Comment noted. The document has been revised to reflect the latest, slightly lower, figure.

**Errata:** Insert the following bullet after page 3.3-4, partial paragraph 1, bullet 3:

- VOC - 546.3 tons per year

**Comment Code:**Private Industry[CHV-62](#)

**Response:** DOE has the option to retain ownership of the ERC certificates, but plans to transfer them to the purchaser, as indicated in the Environmental Permit Transfer Implementation Plan (Jan. 1997). See Section 3.3-4 for additional text regarding this revision.

**Errata:** Replace on page 3.3-4, paragraph 1, sentence 2 with the following:

DOE may retain ownership of the ERCs or may transfer them to the new owner. If DOE retains ownership, the new owner may be required to obtain ERCs for any permit modifications with emissions increases. The new owner may obtain the ERCs from DOE or elsewhere. DOE may also transfer the ERCs as a part of the sale. If DOE transfers the ERCs to the new owner, the new owner would be required to submit an application to transfer ERC certificates at the completion of the sale.

**Comment Code:**Private Industry[CHV-63](#)

**Response:** Comment noted. The text of Section 3.3.2 has been revised consistent with this comment and information provided in comments by the SJVUAPCD.

**Errata:** Change page 3.3-5, paragraph 2, the first three sentences to read:

Kern County is in nonattainment for ozone and fine dust (PM<sub>10</sub>) (see Table 3.3-1). In addition, the City of Bakersfield is in nonattainment of the Federal standard for carbon monoxide (CO).

**Comment Code:**Private Industry[CHV-64](#)

**Response:** Comment noted. See revision to Section 3.3.

**Errata:** Delete on page 3.3-4, paragraph 2, last two sentences to read:

EPA revised the primary standards in July 1997 by adding a new annual PM<sub>2.5</sub> standard set at 15 microgram/m<sup>3</sup> and a new 24 hour PM<sub>2.5</sub> standard set at 65 microgram/m<sup>3</sup>. EPA will work with states to deploy the PM<sub>2.5</sub> monitoring networks to determine (1) which areas meet or do not meet the new air quality standards (2) what are the major sources of PM<sub>2.5</sub> in various regions, and (3) what actions are necessary to reduce emissions. States will have 3 years from the date of being designated nonattainment to develop pollution control plans and submit to EPA showing how they will meet the new standards. Areas will then have up to 10 years from their designation as non attainment to attain PM<sub>2.5</sub> standards with the possibility of two 1-year extensions.

**Comment Code:**Private Industry[CHV-65](#)

**Response:** Comment noted. The purpose of this Section of the document is to discuss the existing conditions at NPR-1 and consequently it is not the appropriate location for a discussion of the need for CEQA mitigation measures.

**Errata:** None.

**Comment Code:**Private Industry[CHV-66](#)

**Response:** Comment noted. The requested clarification has been added to the referenced text.

**Errata:** Change page 3.4-1, paragraph 3, to read:

Under the provisions of the Clean Water Act, standards are also set to protect the nation's waters from polluted storm water discharges. The only water body on NPR-1 that has been classified as a navigable waterway, and thus falls under the provisions of the Clean Water Act, is Buena Vista Creek. NPR-1 is presently exempt from the NPDES storm water discharge permit requirements because there have been no reportable quantity spills into storm water and because storm water is basically non-existent at Elk Hills. As a best management practice, however, site personnel have been monitoring Buena Vista Creek and other drainages during storm events since 1992 to determine if any contaminated runoff occurs and if it contains an oily sheen. Existing procedures call for NPR-1 to submit a Notice of Intent to receive coverage under a general NPDES permit for storm water runoff within 30 days to the California Regional Water Quality Control Board, if a reportable quantity spill occurs into Buena Vista Creek. Other environmentally sensitive areas that have been designated since the establishment of NPR-1 include the Fern Fan

Element of the Kern Water Bank located adjacent to the northeast flank of Elk Hills, and the Buena Vista Aquatic Recreation Area located two miles southwest of NPR-1 (BPOI et al. 1995).

**Comment Code:**Private Industry[CHV-67](#)

**Response:** The comment about the Section 7 process and the concern about possible duplication of mitigation measures are noted. However, DOE and Kern County disagree that discussion of Section 9 of the ESA would add significantly to the discussion in the Biological Resources Section of the DSEIS/PEIR.

**Errata:** None.

**Comment Code:**Private Industry[CHV-68](#)

**Response:** DOE and Kern County disagree with the comment. While it is true that CEQA does require state lead agencies to conduct such an evaluation, this section of the DSEIS/PEIR discusses the requirements of the California Endangered Species Act, which also have such a requirement independent of CEQA.

**Errata:** None.

**Comment Code:**Private Industry[CHV-69](#)

**Response:** Page 3.5-2 has a detailed discussion of the California Endangered Species Act. Additional discussion of Section 2080 would not contribute meaningfully to the reader's understanding of the issues.

**Errata:** Insert on page 3.5-2, paragraph 1, at the end of sentence6:

in Section 2080

**Comment Code:**Private Industry[CHV-70](#)

**Response:** This court action has been overturned by the California Legislature. See Revision to Section 3.5 in Chapter 4.

**Errata:** Delete the last two sentences from bullet 1 on page 3.5-2.

**Comment Code:**Private Industry[CHV-71](#)

**Response:** For a more complete discussion of plant communities on NPR-1 the commenter is referred to the 1993 SEIS, which was referenced in the DSEIS/PEIR.

**Errata:** None.

**Comment Code:**Private Industry[CHV-72](#)

**Response:** DOE and Kern County agree with this statement. This comment will be included as indicated in the revisions of this document.

**Errata:** Change page 3.5-3, paragraph 4, sentence 6 to read:

Both the western whip tail and side-blotched lizard occur on NPR-1, as well as several species of snakes and lizards.

**Comment Code:**Private Industry[CHV-73](#)

**Response:** DOE and Kern County disagree with the comment. As the text indicates, the statement is based on research and the professional opinions of the researchers and FWS.

**Errata:** None.

**Comment Code:**Private Industry[CHV-74](#)

**Response:** The DSEIS/PEIR clearly defines "species of concern" as used in the document in the footnote on p.3.5-1. The titles in Tables 3.5-2 and 3.5-3 refer to "special status" which includes species of concern, Federally or state endangered, and Federally or state threatened as noted in the footnote on p. 3.5-7.

**Errata:** None.

**Comment Code:**Private Industry[CHV-75](#)

**Response:** Footnote 3 on Page 3.5-7 provides a definition of the term "special" for Table 3.5-2. However, DOE and Kern County agree that the use of the term needs to be clarified. See the addition to Section 3.5 footnote number one.

**Errata:** Insert the following on page 3.5-1 at the end of footnote 1:

Species recognized as "special" by the state of California are those species listed in the California Natural Diversity Data Base or other similar California data bases listing plant and animals considered to be threatened, rare or sensitive under one or more criteria.

**Comment Code:**Private Industry[CHV-76](#)

**Response:** DOE and Kern County agree with the comment. See the revision to Section 3.5.

**Errata:** Change page 3.5-8 paragraph 1, sentence 1 to read:

Kern Mallow (*Eremalche parryi ssp. kernensis*) (Federally endangered, state special) is a small annual plant with mostly small white flowers.

**Comment Code:**Private Industry[CHV-77](#)

**Response:** See response to Comment CHV-74.

**Errata:** None.

**Comment Code:**Private Industry[CHV-78](#)

**Response:** DOE and Kern County agree with the first part of the comment and have added a clarifying footnote to Table 3.5-3. With respect to the definition of "special," see the response to Comment CHV-75.

**Errata:** Insert the following footnote after page 3.5-11, Table 3.5-3, the "BIRDS" heading:

Raptors, while in some cases being designated as California species of special concern, are also protected under the California Fish and Game Code.

**Comment Code:**Private Industry[CHV-79](#)

**Response:** The referenced paragraph discusses past operations that have affected the existing conditions at NPR-1 rather than future operations. DOE and Kern County have revised the title and the first sentence of the paragraph accordingly.

**Errata:** Replace the heading on page 3.5-15, paragraph 6 and delete the words "Potential" and "continued" from the first sentence to read:

Past Effects of NPR-1 Operations on San Joaquin Kit Fox. Effects of oil field development and production under the



Reference Case on NPR-1 have been previously discussed in detail. (Martinson 1980; Kato and O'Farrell 1986; O'Farrell et al. 1986; Berry et al. 1987; Harris et al. 1987; Kobetich 1987; Scrivner et al. 1987a; Zollick et al. 1987; DOE 1991, DOE SEIS 1993; Medlin 1995b)

**Comment Code:**Private Industry [CHV-80](#)

**Response:** The referenced paragraph discusses past operations that have affected the existing conditions at NPR-1 rather than future operations. DOE and Kern County have revised the title and the first sentence of the paragraph accordingly.

**Errata:** Replace the heading on page 3.5-17, paragraph 4 and delete the words "potential" and "continuing" from the first sentence to read:

Past Effects of NPR-1 Activities on Blunt-nosed Leopard Lizards. Loss of habitat due to construction and operational activities was identified as the most significant impact on the blunt-nosed leopard lizard of MER development at NPR-1 (Kato and O'Farrell 1986).

**Comment Code:**Private Industry [CHV-81](#)

**Response:** The referenced paragraph discusses past operations that have affected the existing conditions at NPR-1 rather than future operations. DOE and Kern County have revised the title and the first sentence of the paragraph accordingly.

**Errata:** Replace the heading on page 3.5-20, paragraph 1 and delete the words "Potential" and "continuing" from the first sentence to read:

"Past Effects of NPR-1 Activities on Giant Kangaroo Rats": Impacts of NPR-1 operations on the giant kangaroo rat include loss of habitat, burial of burrows, being struck by vehicles, getting caught in an oil spills, exposure to contaminants, and fire (O'Farrell and Kato).

**Comment Code:**Private Industry [CHV-82](#)

**Response:** The referenced paragraph discusses past operations that have affected the existing conditions at NPR-1 rather than future operations. DOE and Kern County have revised the title and the first sentence of the paragraph accordingly.

**Errata:** Replace the heading on page 3.5-22, paragraph 1, replace the heading and delete the word "Potential" from the second sentence to read:

Past Effects of NPR-1 Activities on San Joaquin Antelope Squirrel: Loss of habitat, displacement by California ground squirrels (usually found near human activity), mortality or injury from construction activities, vehicle impacts, and getting caught in oil spills or trapped in oil field activities could adversely affect San Joaquin antelope squirrels at NPR-1. Effects of NPR-1 activities on this species have not been carefully studied, but based on results of site wide surveys conducted in 1984 and 1989, the decline in observations of this species do not appear to be related to petroleum production activities.

**Comment Code:**Private Industry [CHV-83](#)

**Response:** Footnote 1 on p. 3.5-1 defines "species of concern" as used in the DSEIS/PEIR and so the reference is correct. As the sentence refers to the definition, it is not necessary to repeat it in its entirety.

**Errata:** None.

**Comment Code:**Private Industry [CHV-84](#)

**Response:** Comment noted. The referenced text has been modified accordingly.



**Errata:** Change page 4.2-1, paragraph 4 to read:

Some programs required by DOE to be implemented under the No Action Alternative (e.g., the Rad Con program and environmental training program) may or may not continue on the same level under the Proposed or Alternative to Proposed Action, depending on the environmental practice of the proposed purchaser. The waste minimization/pollution prevention program currently implemented by DOE in accordance with DOE Order 0440.1, or some comparable program, is expected to be implemented by the new owner in accordance with the California Hazardous Waste Source Reduction and Management Review Act (California Health and Safety Code Section 25244 et seq.).

**Comment Code:**Private Industry[CHV-85](#)

**Response:** The incorrect reference to Table 3.2-1 has been deleted. Also, as discussed in response to Comment CHV-56, DOE believes all of the information of interest to the commenter is presented in narrative form on pages 3.2-2 and 3.2-3. Additional detail, if desired, can be obtained from ATI 1997 referenced in the DSEIS/PEIR. Therefore, DOE believes it is unnecessary to revise the document to include the summary table requested by the commenter.

**Errata:** Delete the last sentence in the first paragraph on page4.2-4.

**Comment Code:**Private Industry[CHV-86](#)

**Response:** See response to Comment CHV-84.

**Errata:** None.

**Comment Code:**Private Industry[CHV-87](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation and response to Comment CHV-84.

**Errata:** None.

**Comment Code:**Private Industry[CHV-88](#)

**Response:** Comment noted. The fact that the DOE orders would not apply does not change the general conclusions.

**Errata:** None.

**Comment Code:**Private Industry[CHV-89](#)

**Response:** See response to Comment CHV-24. The modeling results indicate a possible need for additional mitigation in the issuance of future new source permits because the modeling shows the potential for emissions exceeding state and national standards. Exclusion of statutory mandated mitigation from the document would leave the discussion incomplete.

**Errata:** None.

**Comment Code:**Private Industry[CHV-90](#)

**Response:** Comment noted. In estimating emissions, it was assumed that the internal combustion engines did not meet BARCT requirements in 1995 and that with the implementation of appropriate requirements, they may able to meet the SJVUAPCD limits required by 2001.

**Errata:** None.

**Comment Code:**Private Industry[CHV-91](#)

**Response:** These engines were included in the air modeling because they were included in the 1995 actual emission inventory. In addition, these engines were included for later years because the analysis focused on maximum potential/allowable emissions as would be stated in the permits or required by regulations. Because DOE does hold permits for these engines, the possibility of operating them in the future exists; however, if in the future these engines are not operated, the emissions estimated under this analysis are very conservative. As noted elsewhere in the text, by using the maximum potential/allowable emissions for future year analysis, the emission estimates are conservative because the actual emissions may in fact be lower than allowed.

**Errata:** None.

**Comment Code:**Private Industry[CHV-92](#)

**Response:** See response to CHV-89.

**Errata:** None.

**Comment Code:**Private Industry[CHV-93](#)

**Response:** See response to CHV-89.

**Errata:** None.

**Comment Code:**Private Industry[CHV-94](#)

**Response:** See response to CHV-89.

**Errata:** None.

**Comment Code:**Private Industry[CHV-95](#)

**Response:** The only water body on NPR-1 that has been classified as an navigable waterway under the Clean Water Act is Buena Vista Creek. Sandy Creek and Broad Creek also qualify as navigable waterways, but only on NPR-2. The referenced text has been modified to make this clarification.

**Errata:** Change page 4.4-3, paragraph 6, the last two sentences to read:

The only water body on NPR-1 that has been classified as a navigable waterway under the Clean Water Act is Buena Vista Creek. Although NPR-1 has been exempted from the Act's storm water permit requirements, facility personnel (as a best management practice) monitor the quality of storm water entering Buena Vista Creek during heavy precipitation events. No pollution incidents have been observed since this monitoring was initiated in 1992.

**Comment Code:**Private Industry[CHV-96](#)

**Response:** Comment noted. The referenced text has been revised accordingly.

**Errata:** Change page 4.4-3, paragraph 7, sentence 3 to read:

Smaller volumes of produced water (7,000 to 8,000 barrels per day) are disposed in four active surface sumps, in accordance with waste discharge requirements issued by the Regional Water Quality Control Board.

**Comment Code:**Private Industry[CHV-97](#)

**Response:** Comment noted. The referenced text has been modified accordingly.

**Errata:** Change page 4.4-8, sentence 3 to read:

Most produced water on NPR-1 is injected into the Tulare Zone, portions of which have been designated as an exempt aquifer for the purpose of Class II underground injection (meaning that Class II injection can occur without having to protect the Tulare Zone as an underground source of drinking water).

**Comment Code:**Private Industry[CHV-98](#)

**Response:** Comment noted. The referenced text has been modified accordingly.

**Errata:** Change page 4.4-13, paragraph 3, sentence 4 to read:

Wells must be plugged and abandoned in a manner that prevents movement of fluids into or between underground sources of drinking water.

**Comment Code:**Private Industry[CHV-99](#)

**Response:** Comment noted. The referenced text has been modified accordingly.

**Errata:** Change page 4.4-15, paragraph 1, sentence 3 to read:

However, if an injection well leaks or fails mechanically, the impact on drinking water should not be significant because the Tulare Zone is an exempt aquifer for Class II underground injection (meaning that it is not protected as an underground source of drinking water). In addition, available data indicate that local ground water is typically nonpotable due to high total dissolved solids levels.

**Comment Code:**Private Industry[CHV-100](#)

**Response:** Comment noted. The referenced text has been modified accordingly.

**Errata:** Change page 4.4-15 paragraph 5 to read:

There are five active sumps used to dispose of produced water at NPR-1. Four sumps, all located in Section 10G, are in regular use and receive a total of 7,000 to 8,000 barrels of produced water per day. The other active sump, located in Section 26Z, is used only in emergency or abnormal situations, when produced waters cannot be disposed of through normal means (e.g., during injection well system shutdowns). Overall, continued use of these sumps should not cause significant environmental impacts. As it has in the past, the amount of produced water disposed of in sumps is expected to decline, as oil and water production levels continue to trend downward and more of the produced water is recycled for water flooding purposes. There are no new sumps planned for the site. In addition, the active sumps are permitted by the Regional Water Quality Control Board and designed to avoid impacts to drinking water supplies. For example, the one active sump located in an alluvial area where produced water could percolate and potentially contaminate a drinking water aquifer (the emergency sump in Section 26Z) is equipped with a liner.

Although there are several other sumps on site in Sections 9G and 18G, they are all inactive. Closure and remediation activities of old sumps are summarized in Section 3.2.3.

**Comment Code:**Private Industry[CHV-101](#)

**Response:** Comment noted. The referenced text has been modified accordingly.

**Errata:** Change page 4.4-17 bullet 4 to read:

Obtaining permits and complying with waste discharge requirements issued by the Regional Water Quality Control Board for the disposal of produced water in surface sumps; and

**Comment Code:**Private Industry[CHV-102](#)

**Response:** Due to the affirmative Federal obligation to protect the environment over and above statutory minimums, it

cannot be said with certainty that the new owner will adopt similar plans that provide the same level of protection and the cited paragraph reflects this. However, DOE and Kern County agree that the difference in the plans in this instance would not be significant.

**Errata:** None.

**Comment Code:**Private Industry[CHV-103](#)

**Response:** As stated in response to Comment CHV-25, DOE believes that the risk of oil spills is not significant, even assuming an increase in future oil spills corresponding to increased production levels. Nevertheless, DOE acknowledges that an increased availability and commitment of capital under the commercial development case could counteract an increased spill risk caused by increased production levels. This concept has been reflected in revised text.

**Errata:** Change page 4.4-20, paragraph 3, sentence 1 and 2 to read:

The higher production levels expected in the upper bound of the Commercial Development Case, compared to the Reference Case and the upper bound of the Government Development Case, would result in a need for larger volumes of freshwater, a larger number of wells, and larger volumes of produced water and fluid injection. These increased volumes also would imply an increased risk of spills, although an increased availability and commitment of capital toward system maintenance and improvements by commercial entities could act to offset this increased risk.

**Comment Code:**Private Industry[CHV-104](#)

**Response:** Comment noted. The referenced text has been revised accordingly.

**Errata:** Change page 4.4-21 paragraph 3, sentence 1 to read:

Finally, ... that migrate off site, outside the portion of the Tulare Zone designated as an exempt aquifer for the purpose of Class II underground injection.

**Comment Code:**Private Industry[CHV-105](#)

**Response:** See response to CHV-21.

**Errata:** None.

**Comment Code:**Private Industry[CHV-106](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-107](#)

**Response:** The comment implies that reconsultation under the 1995 Biological Opinion could occur. As the DSEIS/PEIR discusses, the new owner would have to obtain a Section 10 permit.

**Errata:** None.

**Comment Code:**Private Industry[CHV-108](#)

**Response:** See response to CHV-69.

**Errata:** None.

**Comment Code:**Private Industry[CHV-109](#)

**Response:** See Figure 2.5-1 and the VFHCP. DOE and Kern County agree with the proposed change. See page 4.5-11 in the DSEIS.PEIR and there vision of Section 4.5 in Chapter 4.

**Errata:** Change page 4.5-5, paragraph 2, sentence 3 to read:

"However, even that impact could be mitigated to less than significant levels within the meaning of CEQA by the adoption and implementation of a regional HCP or other mitigation measures properly structured to account for the loss of the Federal protection of NPR-1."

**Comment Code:**Private Industry[CHV-110](#)

**Response:** See response to Comment CHV-34.

**Errata:** None.

**Comment Code:**Private Industry [CHV-111](#)

**Response:** See response to Comment CHV-25.

**Errata:** None.

**Comment Code:**Private Industry[CHV-112](#)

**Response:** See response to CHV-34.

**Errata:** None.

**Comment Code:**Private Industry[CHV-113](#)

**Response:** DOE and Kern County disagree with general comment 2, see Major Issue 1.4, Loss of Affirmative Federal Obligation. The comment on the possibility that the new owner would not accept the transfer of the terms and conditions of the Biological Opinion is noted. In fact, the proposed purchaser has accepted the transfer of the Biological Opinion. Therefore, no response is required. DOE and Kern County disagree with the comment that the mitigation measures are confusing. The tables and the narrative explain their origin and organization.

**Errata:** None.

**Comment Code:**Private Industry[CHV-114](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation, and response to Comment CHV-113.

**Errata:** None.

**Comment Code:**Private Industry[CHV-115](#)

**Response:** DOE and Kern County do not agree with the comment. As the items are from the 1995 Biological Opinion, they do not represent items addressed in the 1993 SEIS.

**Errata:** None.

**Comment Code:**Private Industry[CHV-116](#)

**Response:** See response to Comment CHV-115.

**Errata:** None.

**Comment Code:**Private Industry[CHV-117](#)

**Response:** See Major response 1.4, Loss of Affirmative Federal Obligation. Regarding the ultimate disposition of NPR-1, see Major Issue 1.8, Future Uses of the NPR-1 Property.

**Errata:** None.

**Comment Code:**Private Industry[CHV-118](#)

**Response:** As indicated in Comment DOI-7, revegetation is not a mitigation measure that FWS would include in future consultation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-119](#)

**Response:** See response to Comment CHV-118.

**Errata:** None.

**Comment Code:**Private Industry[CHV-120](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-121](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation, and response CHV-113.

**Errata:** None.

**Comment Code:**Private Industry[CHV-122](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-123](#)

**Response:** See Major Issue 1.6, Mitigation Implementation Process, and Major Issue 1.8, Future Uses of the NPR-1 Property.

**Errata:** None.

**Comment Code:**Private Industry[CHV-124](#)

**Response:** Comment noted. See Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Private Industry[CHV-125](#)

**Response:** DOE and Kern County disagree with the comment. The table reflects the discussion in the section.

**Errata:** None.

**Comment Code:**Private Industry[CHV-126](#)

**Response:** See the response to Comment AG1-1 and revised Section 4.6 in Chapter 4.

**Errata:** None.

**Comment Code:**Private Industry[CHV-127](#)

**Response:** See the response to Comment AG1-1 and revised Section 4.6i n Chapter 4.

**Errata:** None.

**Comment Code:**Private Industry[CHV-128](#)

**Response:** See the response to Comment AG2-1 and revised Section 4.6 in Chapter 4.

**Errata:** None.

**Comment Code:**Private Industry[CHV-129](#)

**Response:** See the response to Comment AG2-1 and revised Section 4.6 in Chapter 4.

**Errata:** None.

**Comment Code:**Private Industry[CHV-130](#)

**Response:** See the response to Comment AG2-1 and revised Section 4.6 in Chapter 4.

**Errata:** None.

**Comment Code:**Private Industry[CHV-131](#)

**Response:** See the response to Comment AG2-1 and revised Section 4.6 in Chapter 4.

**Errata:** None.

**Comment Code:**Private Industry[CHV-132](#)

**Response:** The above comment concerning the California Teachers Retirement Fund is mentioned in Section 4.9.3.3. (page 4.9-6) of the DSEIS/PEIR.

**Errata:** None.

**Comment Code:**Private Industry[CHV-133](#)

**Response:** See response to Comment CHV-25.

**Errata:** None.

**Comment Code:**Private Industry[CHV-134](#)

**Response:** See response to Comment CHV-25.

**Errata:** None.

**Comment Code:**Private Industry[CHV-135](#)

**Response:** Table 4.10-4 is a matrix showing qualitatively the relative risk of various hazard scenarios. The matrix illustrates that certain combinations of accident likelihood and severity, the two major components of risk, are significant with respect to public safety. Such significant combinations are indicated as shaded areas in the matrix.

**Errata:** See Chapter 4 for a table with darker shading.

**Comment Code:**Private Industry[CHV-136](#)

**Response:** DOE estimated impacts under both government and commercial operation scenarios based on an analysis of historical oil spill and accident data for NPR-1. DOE used these data to determine spill or accident rates associated with particular activities (e.g., production of a barrel of oil, remedial actions, etc.). DOE then applied these rates to production levels under the various alternatives for purposes of comparison. DOE believes this is a valid approach for estimating impacts and that the results do not understate impacts related to the Government Operation.

Using this methodology, the No Action Alternative would result in less impact than the Proposed Alternative since the risk of spills increases with increased production levels projected under commercial development. DOE did not base this finding on any existing study.

Finally, the commenter refers to studies indicating that the performance of operations at NPR-1 is below industry's performance, without providing any references. Thus, DOE cannot respond with specificity to this matter.

**Errata:** None.

**Comment Code:**Private Industry[CHV-137](#)

**Response:** See response to Comment CHV-25.

**Errata:** None.

**Comment Code:**Private Industry[CHV-138](#)

**Response:** See response to Comment CHV-25.

**Errata:** None.

**Comment Code:**Private Industry[CHV-139](#)

**Response:** Comment noted. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:**Private Industry[CHV-140](#)

**Response:** The referenced section is a requirement of NEPA, and is a standard section in all EIS's.

**Comment Code:**Private Industry[KOR-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[KOR-2](#)

**Response:** Comment noted. No response required.

**Errata:** None.



**Comment Code:**Private Industry[KOR-3](#)

**Response:** Comment noted. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:**Private Industry[KOR-4](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[PGE-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[PGE-2](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[PGE-3](#)

**Response:** DOE believes that the existing electrical system of substations and transmission lines is adequate to accommodate expanded production from NPR-1 and the replacement of internal combustion powered compressors. See modified discussion of future electric power use in Section 4.11.3. However, it should be noted that the document is a program level EIR and if additional electrical facilities are required in the future, appropriate CEQA review will occur at that time.

**Errata:** Insert the following after page 4.11-2, paragraph 2, the last sentence:

As the existing transmission lines and associated facilities were developed to support higher levels of electricity use on NPR-1 before the installation of the on-site cogeneration facility, these facilities are adequate to handle any future needs for the delivery of electric power to the site in excess of the capacity of the cogeneration plant without the need for any significant new construction that might impact the surrounding environment.

**Comment Code:**Private Industry[PGE-4](#)

**Response:** See the response to Comment PGE-3.

**Errata:** None.

**Comment Code:**Private Industry[PEN-1](#)

**Response:** Several commenters have noted concerns about the socioeconomic impacts related to the sale of NPR-1. However, DOE and Kern County disagree that the Section 4.9 is flawed. See Major Issue 1.7, Socioeconomics. It further should be noted that these issues are beyond the scope of CEQA.

**Errata:** None.

**Comment Code:**Private Industry[PEN-2](#)

**Response:** Comment noted. See Major Issue Section 1.7,Socioeconomics.

**Errata:** None.

**Comment Code:**Private Industry[PEN-3](#)

**Response:** The commenter addresses issues related to the outcome of the sale of Elk Hills and its impact on the West Coast Petroleum market, which are shared by others. DOE and Kern County disagree that the DSEIS/PEIR misrepresents the impacts of the Proposed Action and Alternatives. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:**Private Industry[PEN-4](#)

**Response:** Concerns about regional or state-wide impacts as a result of the sale of NPR-1 are noted. However, DOE and Kern County disagree that significant impacts have been omitted from the document. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:**Private Industry[PEN-5](#)

**Response:** The 200 to 300 jobs that were estimated to be eliminated in the DSEIS/PEIR consist mainly of non-field personnel that are associated with the Federal government's current operations at the site. The respondent's assertion that job losses could be less, depending on the nature of the winning bidder, would not alter the conclusion of the DSEIS/PEIR that the surrounding physical environment will not be negatively impacted as a result of any socioeconomic effects that result from the proposed sale.

**Errata:** None.

**Comment Code:**Local Government Agencies Private Industry[PEN-6](#)

**Response:** Concerns about potential impacts on upstream oil and gas operations as a result of selling NPR-1 to a private entity--whether the buyer is an integrated California oil company or has existing production operations in the area--are noted. However, DOE and Kern County disagree that the DSEIS/PEIR does not adequately address socioeconomic impacts. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:**Private Industry[PEN-7](#)

**Response:** DOE notes that this assumption was used in the 1993 EIS because NPR's demand for goods and services can not be entirely met by regional supplies. According to the 1995 Annual Report, less than five percent of total NPR expenditures accounted for the salaries and support of the Government employees at Elk Hills. The majority of NPR expenditures were made for engineering support services, which were provided by a firm headquartered outside of the region.

**Errata:** None.

**Comment Code:**Local Government Agencies Private Industry[PEN-8](#)

**Response:** Concerns about the actual operating expenditures for NPR-1 are noted. However, DOE and Kern County disagree that the report overstates these numbers. According to NPR's Annual Report of Operations, during fiscal year 1995, total costs at NPR-1 were \$169,608,231, which is consistent with the estimate used in the DSEIS/PEIR.

**Errata:** None.

**Comment Code:**Local Government Agencies Private Industry [PEN-9](#)

**Response:** This assumption is consistent with that used in the 1993 SEIS. This assumption was made because the manufacturing and retail sale of this equipment is generally found outside of the County. Consequently, the expenditures made by NPR for this type of equipment do not generally benefit the local economy.

**Errata:** None.

**Comment Code:**Private Industry [PEN-10](#)

**Response:** As discussed in the document, NPR-1 is currently in full compliance with all SJUVAPCD permits and expects to remain in full compliance until the time of the sale, at which time recompliance responsibility would transfer to the new owner. Any failure to file a plan, while violating the regulation, would not result in significant air quality impacts. NEPA and CEQA do not require the analyses of impacts unless they are reasonably foreseeable.

**Errata:** None.

**Comment Code:**Private Industry [PEN-11](#)

**Response:** As the new National Ambient Air Quality Standards for PM<sub>2.5</sub> and ozone had not been adopted before the DSEIS/PEIR was prepared, it did not address the consequences. Now that the new NAAQS have been adopted, more details are available on the NAAQS. Note, however, that EPA has not indicated how the new PM<sub>2.5</sub> NAAQS will be addressed. See the revised text for Section 3.3 in Chapter 4.

**Errata:** See errata for response to Comment CHV-64.

**Comment Code:**Private Industry [PEN-12](#)

**Response:** DOE and Kern County believe that the assumptions used to model air emissions for the DSEIS/PEIR fairly represent the facility and emissions sources as they are currently configured at Elk Hills. As the set-aside is likely to occur in the least developed areas of NPR-1, it is unlikely that the establishment of the conservation areas would affect the facility air emissions in a material fashion.

**Errata:** None.

**Comment Code:**Private Industry [PEN-13](#)

**Response:** As the exact equipment and configuration of facilities under the proposed action could vary, the DSEIS/PEIR analyzed the maximum emissions that might result from the proposed action.

**Errata:** None.

**Comment Code:**Private Industry [PEN-14](#)

**Response:** As the DSEIS/PEIR states in Section 4.5, P.L. 104-106 authorizes the transfer of the terms and conditions of the Biological Opinion. See also the letter from the Department of the Interior in the Appendix. Therefore this should not be a concern for any new operator.

**Errata:** None.

**Comment Code:**Private Industry [PEN-15](#)

**Response:** As Section 4.5 of the DSEIS/PEIR indicates, obtaining these permits would be a key concern of any new owner. However, CDFG appears prepared to work with the new owner, as indicated by their proposed memorandum of understanding attached to their comment letter.

**Errata:** None.

**Comment Code:**Private Industry[PEN-16](#)

**Response:** The objective of the DSEIS/PEIR is to analyze the impacts of the Proposed Action and Alternatives, not determine how to maximize the value of NPR-1 to the government, which is part of the sales process. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

## Associations

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**Comment Code:**Association [CNP-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Association [CNP-2](#)

**Response:** See Major Issue 1.6.1, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:** Association[CC1-1](#)

**Response:** Comment noted. See revision to Section 2.2 in Chapter 4.

**Errata:** Change page 2.2-2, paragraph 4, sentence 5 to read;

In carrying out its authorities, DOGGR is advised by the Conservation Committee of California Oil and Gas Producers (CCCOGP), a unique, industry supported, tax exempt organization that was created in 1929 and that pursuant to state statute has administered a voluntary hydrocarbon resource conservation program for DOGGR since 1995.

**Comment Code:** Association[CC1-2](#)

**Response:** Comment noted. See revision to section 3.11.1.

**Errata:** Change page 3.11-1, paragraph 3 to read:

The Conservation Committee of California Oil and Gas Producers (CCCOGP) is an industry-supported, tax exempt organization that was created in 1929 and that pursuant to state statute has administered a voluntary hydrocarbon resource conservation program for the DOGGR since 1955. CCCOGP represents the oil and gas industry before the DOGGR on matters related to oil and gas conservation. Comprised of both majors and independents, membership accounts for over 80-percent of California production, excluding Elk Hills. It is funded by millage on production of large producers and by a fixed membership fee of \$60 per year for very small producers.

**Comment Code:** Association[CC1-3](#)

**Response:** Comment noted. See revision to Section 3.11.1.

**Errata:** Change page 3.11-1, paragraph 4, sentence 1 to read:

The Committee's conservation efforts have been compared to the Texas Railroad Commission's production proration program with the significant exception that it is operated by the industry rather than the state.

**Comment Code:** Association [CC1-4](#)

**Response:** Comment noted. See revision to Section 3.11.1.

**Errata:** Change page 3.11-1, paragraph 4, sentence 4 to read:

The Committee collects, prints, and distributes information on oil and gas operations in the state.

**Comment Code:** Association [EDF-1](#)

**Response:** Several commenters have discussed their concerns that mitigation measures might not be sufficient to protect endangered species, like that of the San Joaquin kit fox. However, DOE and Kern County believe that the proposed mitigation measures meet the requirements of CEQA to identify measures that would mitigate impacts to less than significant. The California DFG comments (comments from a state agency with responsibilities under both CEQA and the California endangered species act) are relevant with respect to this point. See Comment CFG-18. In addition, see Major Issues Section 1.6, Mitigation Implementation Process. DOE and Kern County further believe that the DSEIS/PEIR adequately delineates the impacts to biological resources in Section 4.5 and analyzes the level of significance.

**Errata:** None.

**Comment Code:** Association [EDF-2](#)

**Response:** The extinction of any endangered species is of great concern. However, the disclosure delineated in this comment would not change the overall impact analysis or mitigation discussion of the DSEIS/PEIR. It is uncertain which "reduced protection" the comment is referring to. DOE and Kern County do not agree that the small level of reduced protection after the implementation of the mitigation measures that would be imposed during the state CEQA and permitting process and any future Federal permitting process virtually assures a continued decline. As the DSEIS/PEIR discusses, the primary factors currently affecting the kit fox population at NPR-1 are predation and rainfall. DOE has a substantial history of operations at NPR-1 and has conducted substantial studies of the effects of those operations on the threatened and endangered species located there. Nothing in DOE's experience demonstrates that even with accelerated development under a commercial owner, the impacts to those species cannot be mitigated. Therefore, DOE lacks any basis on which to conclude that with, mitigation, the Proposed Action will increase the likelihood of the extinction of all four species. DOE and Kern County do acknowledge however, that given the time frame covered by the document, future enforcement of these mitigation measures remains uncertain. See Major Issue 1.4, Loss of the Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:** Association [EDF-3](#)

**Response:** Concerns about the responsibilities of private parties to protect endangered and threatened species are noted. However, DOE and Kern County disagree with this comment. The DSEIS/PEIR clearly defines the impacts to biological resources, including the loss of affirmative federal obligations to protect, conserve and help recover threatened and endangered species and their habitats. It also provides mitigation measures for the loss of affirmative federal obligations (BRMs on p. 4.5-31 and 4.5-32), and includes measures for compensation of habitat loss (BRM-17.2) as well as conservation measures (BRM-19.1 and BRM-19.2). Section 10 is not the only mechanism available for limiting or mitigating impacts on biological resources discussed in the document. See Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Association [EDF-4](#)

**Response:** DOE and Kern County believe that the comment understates the responsibilities of a private owner, particularly with respect to the requirements for the development of a habitat conservation plan. Notwithstanding those obligations, they do agree that, without more, the transition from the Section 7 process to the Section 10 process would involve significant impacts to threatened and endangered species. However, the CEQ A mitigation obligation should assure appropriate mitigation is adopted. See response to EDF-3, as well as the discussion under Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Association [EDF-5](#)

**Response:** DOE and Kern County disagree that monitoring has to occur before mitigation would apply. Many of the mitigation measures discussed in the document, some of which are typically included as mitigating measures in Section 10 permits, are sufficiently broad to permit their implementation without detailed project plans or extensive additional monitoring. See response to EDF-3, as well as the discussion under Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Association [SC1-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Association [SC1-2](#)

**Response:** DOE and Kern County are aware that this study is out in draft form for public comment but have not reviewed that document in preparing this DSEIS/PEIR; however, the importance of habitat to threatened and endangered species is well recognized. As the document indicates, extensive biological resource references were used and cited in preparation DSEIS/PEIR.

**Errata:** None.

**Comment Code:**Association [SC1-3](#)

**Response:** Comment noted. See revision to Section 3.7 in Chapter 3.

**Errata:** Insert the following after page 3.7-2, paragraph 6, sentence 1:

Other major open areas include the 6,000 acre Collies Levee Ecosystem Preserve.

**Comment Code:**Association [SC1-4](#)

**Response:** Comment noted. See Major Issues Section 1.1, DOE's Preferred Alternative.

**Errata:** None.

**Comment Code:**Association [SC1-5](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Association [SC1-6](#)

**Response:** FWS and CDFG do not consider this species as a candidate for listing and therefore, it would be beyond the scope of this document to analyze the eligibility of this species for protected status.

**Errata:** None.

**Comment Code:**Association [SC1-7](#)

**Response:** See the new table for inclusion in Section 4.11 in Chapter 4.

**Errata:** Insert the following table after page 4.11-1, paragraph 3:

**NPR-1 Summary of Production Projections With Energy Equivalents of Total Energy Consumption For All Development Cases**

	Production Projections Total1997- End of Field Life (MMBOE)	Energy Equivalent <sup>a</sup> of Total1996 Energy Consumption <sup>b</sup> (days)
Reference Case Total Hydrocarbon Production	856	31.13
Government Case - Lower Bound Total Hydrocarbon Production	582	21.16
Government Case - Upper Bound Total Hydrocarbon Production	1,089	39.60
Commercial Case - Lower Bound Total Hydrocarbon Production	918	33.38
Commercial Case - Upper Bound Total Hydrocarbon Production	1,433	44.55

<sup>a</sup> = Energy equivalent calculated using the conversion equation bbl = 5.800mmbtu and with the statistic1996 Total US Energy Consumption =58.214 quadrillion btu.

((Case amount MMBOE \* 5800000 btu per bbl) / 58.214 quad btu per year) \* 365days

<sup>b</sup> = The 1996 Total US Energy Consumption estimate was referenced from the EIA/DOE web site for petroleum and natural gas consumption in the United States.

**Comment Code:**Association [SC1-8](#)



**Response:** The diluent issue is discussed in Section 4.11.5 of the DSEIS/PEIR. The discussion in Major Issue 1.7, Socioeconomics, is also relevant to this comment.

**Errata:** None.

**Comment Code:** Association [WIR-1](#)

**Response:** Comment noted. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:** Association [WIR-2](#)

**Response:** Comment noted. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:** Association [WIR-3](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:** Association [WIR-4](#)

**Response:** DOE and Kern County are unaware of any studies, analyses or other information to support this Comment.

**Errata:** None.

**Comment Code:** Association [WIR-5](#)

**Response:** Comment noted. See Major Issue Section 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:** Association [WIR-6](#)

**Response:** DOE notes that currently, purchasers of the small refiner set-aside under NPR-1 sales are prohibited from trading the crude. DOE and Kern county assume this comment refers to possible future trades if small refineries have access to NPR-1 crude after the sale. See Major Issue Section 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:** Association [WIR-7](#)

**Response:** Comment noted. See Major Issue Section 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:** Association [WIR-8](#)

**Response:** DOE acknowledges the concern. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:** Association [WIR-9](#)



**Response:** See Major Issue 1.7, Socioeconomics. No information was provided in Comment that would invalidate the conclusions of the DSEIS/PEIR with respect to the environmental impacts of the Proposed Action.

**Errata:** None.

**Comment Code:**Association [WIL-1](#)

**Response:** Several commenters have discussed reconsultation with the USFWS. See Major Issue 1.3, Reconsultation Under the Biological Opinion.

**Errata:** None.

**Comment Code:**Association [WIL-2](#)

**Response:** DOE and Kern County acknowledge this concern about mitigation efforts. See Major Issue Section 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Association [SWS-1](#)

**Response:** DOE and Kern County acknowledges this concern. However, see Major Issue 1.3, Reconsultation Under the Biological Opinion. See also Major Issue 1.4, Loss of the Affirmative Federal Obligation, and 1.8, Future Uses of the NPR-1 Property.

**Errata:** None.

**Comment Code:**Association [SWS-2](#)

**Response:** DOE and Kern County acknowledge this concern. See Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Association [SWS-3](#)

**Response:** DOE and Kern County acknowledge this concern. See Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

## Concerned Citizens

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**Comment Code:**Concerned Citizen [S\\_F-1](#)

**Response:** The concern about mitigation details are noted. However, DOE and Kern County disagree with the comment. See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Concerned Citizen [S\\_F-2](#)

**Response:** The DSEIS/PEIR states on Page 4.5-4 that the existing permit would only cover the short-term operations of a new owner. It also states that "[a]s these are the same protections that DOE applies in its operations, this would mitigate the impacts to biological resources from commercial ownership to less than significant, at least for the short term." With regard to future land uses after the field is depleted, see Major Issue 1.8, Future Uses of the NPR-1 Property.

**Errata:** None.

**Comment Code:**Concerned Citizen[S\\_F-3](#)

**Response:** DOE acknowledges the concern, but must comply with P.L.104-106; see Major Issue Section 1.1, DOE's Preferred Alternative. Regarding the analysis of transferring NPR-1 to BLM, also see Major Issue 1.1, DOE's Preferred Alternative.

**Errata:** None.

**Comment Code:**Concerned Citizen[S\\_F-4](#)

**Response:** DOE and Kern County recognize the concern that there is the long-term potential loss of valuable habitat, see Major Issue 1.8, Future Uses of the NPR-1 Property.

**Errata:** None.

**Comment Code:**Concerned Citizen[S\\_F-5](#)

**Response:** The DSEIS/PEIR does consider selling the mineral rights and transferring the remaining property rights to BLM. As the discussion of this alternative indicates, the key consideration is Federal ownership, not which agency manages the land. Analysis of USFWS managing the land as a separate alternative would not add to an understanding of the issues. DOE acknowledges the concern about the land being sold and then re-acquired for habitat conservation, see Major Issue 1.1, DOE's Preferred Alternative, and 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Concerned Citizen[S\\_F-6](#)

**Response:** As the DSEIS/PEIR discusses, P.L. 104-106 establishes a process for assuring that the government receives full market value for NPR-1.

**Errata:** None.

**Comment Code:**Concerned Citizen[S\\_F-7](#)

**Response:** NPR-1 was offered for sale in 14 separate segments. The largest segment (approximately 74% of DOE's interest in NPR-1) would give the purchaser approximately 51% of the entire NPR-1 field and would constitute the operatorship for the entire field. The remainder (approximately 26% of DOE's interests in NPR-1) was offered as thirteen 2% segments. The statutory requirements of P.L. 104-106 precluded the conducting of the sale over an extended time period.

**Errata:** None.

**Comment Code:**Concerned Citizen[S\\_F-8](#)

**Response:** DOE refers the commenter to Major Issue 1.6, Mitigation Implementation Process, which discusses how mitigation measures, including conservation easements, are addressed in the sales process.

**Errata:** None.

**Comment Code:**Concerned Citizen[S\\_F-9](#)

**Response:** This concern is acknowledged but is beyond the scope of NEPA.

**Errata:** None.

**Comment Code:**Concerned Citizen[S\\_F-10](#)

**Response:** NEPA requires a comparison of alternatives based on environmental considerations, not economic considerations. See Major Issue 1.1, DOE's Preferred Alternative.

**Errata:** None.

**Comment Code:**Concerned Citizen[S\\_F-11](#)

**Response:** See the revised section 4.6 in Chapter 4 for the latest information on DOE's plans to mitigate impacts to cultural resources.

**Errata:** None.

**Comment Code:**Concerned Citizen[PAK-1](#)

**Response:** DOE and Kern County disagree that the document was not well researched. The reader is referred to the EPA comment letter rating the document. DOE and Kern County also disagree that the document requires greater detail. With respect to the effectiveness of mitigation measures, see Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Concerned Citizen[PAK-2](#)

**Response:** See Major Issue 1.3, Reconsultation Under the Biological Opinion and the DOI letter in the Appendix. DOE and Kern County disagree that the Proposed Action and the Alternatives go far beyond the levels addressed by the 1995 Biological Opinion document's quantitative analysis of future production and acre age disturbance. Finally, the document includes numerous mitigation measures that go significantly beyond the 1995 Biological Opinion.

**Errata:** None.

**Comment Code:**Concerned Citizen[PAK-3](#)

**Response:** DOE and Kern County agree to some extent that the mitigation measures are imprecise. This is due to the need for broad mitigation measures that could cover the broad range of future actions at Elk Hills. DOE and Kern County disagree that the document does not address the consequences to listed plants of the proposed action. See also the discussion under Major Issue 1.6, Mitigation Implementation Process and 1.3, Need for Reconsultation. Also, it should again be noted that this is a Program level EIR and to the extent that a new owner might propose a development different from that described in the document, additional CEQA analysis including possible additional mitigation measures would be required.

**Errata:** None.

**Comment Code:**Concerned Citizen[D\\_M-1](#)

**Response:** Section 3416 of P.L. 104-106 indicates a Congressional intent that actions with respect to the other naval petroleum reserves other than retention and operation by DOE would be undertaken by legislative action. Therefore, DOE does not intend to proceed until Congressional direction is forthcoming.

**Errata:** None.

**Public Hearing Comments**

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**Comment Code:**Public Hearing Commenter[SC2-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Public Hearing Commenter[SC2-2](#)

**Response:** See response to Comment SC1-2, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Public Hearing Commenter[SC2-3](#)

**Response:** See response to Comment SC1-3, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Local Government Agencies Public Hearing Commenter[SC2-4](#)

**Response:** See response to Comment SC1-4 and SC1-5, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Local Government Agencies Public Hearing Commenter[SC2-5](#)

**Response:** See response to Comment SC1-6, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Public Hearing Commenter[SC2-6](#)

**Response:** See response to Comment SC1-7, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Public Hearing Commenter[SC2-7](#)

**Response:** See response to Comment SC1-8, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Public Hearing Commenter[SC2-8](#)

**Response:** See response to Comment SC1-7, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Local Government Agencies Public Hearing Commenter[SC2-9](#)

**Response:** See response to Comment SC1-7, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Local Government Agencies Public Hearing Commenter[WSP-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Local Government Agencies Public Hearing Commenter [AG1-1](#)

**Response:** DOE and Kern County agree that this section of the document should be expanded to reflect events since the DSEIS/PEIR was published. See Chapter 4 for the revised Section 4.6.

**Errata:** See revised Section 4.6.

**Comment Code:**Public Hearing Commenter [KRP-1](#)

**Response:** DOE and Kern County share the commenter's concern about the preservation of cultural sites and the restoration of grave sites. See Major Issue 1.5, Native American Cultural Resources.

**Errata:** None.

**Comment Code:**Public Hearing Commenter [CC2-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Public Hearing Commenter [AG2-1](#)

**Response:** The comment correctly summarizes from the DSEIS/PEIR. A new private owner would need to apply for a Section 10 permit if NPR-1 is developed at production levels above those contained in the 1995 Biological Opinion. For the meaning of current level of operation, please refer to the 1995 Biological Opinion. Also see the comments from the U.S. Fish and Wildlife Service (USFWS) in this document. Regarding the additional 411 acres, the new owner would have to reconsult with USFWS if projects at NPR would permanently disturb more than the 828 acres allowed under the 1995 Biological Opinion (417 having already been disturbed by DOE operations).

**Errata:** None.

**Comment Code:**Local Government Agencies Public Hearing Commenter [AG2-2](#)

**Response:** The proposed purchaser will be required to comply with all the terms and conditions of the 1995 Biological Opinion. See also the letter from the Department of Interior in the Appendix to this document. In essence, as the DSEIS/PEIR indicates, compliance with the 1995 Biological Opinion requires the implementation of all current protection species programs ongoing at NPR-1. These are summarized in the document. There are two key documents that fully explain the obligations of the new owner, the 1995 Biological Opinion and the "Conservation Plan for Protected Species on NPR-1" referenced in the 1995 Biological Opinion and the DSEIS/PEIR. The 1995 Biological Opinion is included in the DSEIS/PEIR; the Conservation Plan is available in the public reading room.

**Errata:** None.

**Comment Code:**Public Hearing Commenter [AG2-3](#)

**Response:** The new owner will have to apply for a Section 2081 permit of the California Fish and Game Code for the incidental taking of threatened and endangered species on NPR-1. The transfer of ownership does not assure that the new owner would obtain a Section 2081 permit. However, the fact that CDFG has proposed a Memorandum of Understanding between the Elk Hills unit operator and CDFG should facilitate the process for obtaining a 2081 permit that would allow the new owner to proceed with expanded development of NPR-1. For further information, see the letter from CDFG.

**Errata:** None.

**Comment Code:** Public Hearing Commenter [AG2-4](#)

**Response:** See response AG2-3.

**Errata:** None.

**Comment Code:** Local Government Agencies Public Hearing Commenter [AG2-5](#)

**Response:** See response to Comment AG2-3.

**Errata:** None.

**Comment Code:** Public Hearing Commenter [CCB-1](#)

**Response:** Several commenters have expressed concern about the desecration of grave sites. See Major Issue 1.5, Native American Cultural Resources.

**Errata:** None.

**Comment Code:** Public Hearing Commenter [CCB-2](#)

**Response:** DOE and Kern County have included measures to mitigate possible damage to culturally sensitive sites. See Major Issue 1.5, Native American Cultural Resources.

**Errata:** None.





Federal Government Agencies

**Comment Code:**Federal Government Agency [AGR-1](#)

**Response:** Comment noted. The revised soil information provided by the commenter provides additional information and clarification about soil conditions of Elk Hills. See Section 3.6.1 of the DSEIS/PEIR and the revised text for Section 3.6.1 in this document. The commenter is the author of the Soil Survey of Kern County, California, Naval Petroleum Reserve Number One Part, Interim Report (not dated)

**Errata:** Change page 3.1-4 and page 3.1-5, paragraph 4 and paragraph1, respectively to read:

The soils of Elk Hills are composed of highly stratified deposits that vary greatly in their proportions of gravel, sand, silt, and clay. Some strata are gravelly sands, some are clayey, and some have a loamy texture with a mixture of sand, silt, and clay that is poorly sorted. A few areas have a soil layer that is chemically cemented hard pan (Regal 1997).

Many areas of Elk Hills contain loamy surface soils that are underlain by mottled clayey former lake deposits. Some of the sub-surface layers contain ypsom crystals and other salts (e.g., sodium, chlorine, and boron) that commonly accumulate in arid regions. Salt concentrations usually are highest in fine-grained soils where the low permeability associated with these materials,low annual precipitation, and insufficient perennial surface water allow only minimal leaching to occur. In these high-saline areas, plant growth is reduced dramatically and shifts toward more salt-tolerant species.

**Comment Code:**Federal Government Agency [ACE-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Local Government Agencies Federal Government Agency [COM-1](#)

**Response:** In order to learn more information about these monuments,the referenced individual was contacted. It was learned that the 90 day notice requirement only applies to Federal agencies. As the Proposed Action does not involve moving any of the monuments, no further action is required. However, for the sake of completeness, the monuments in the general latitude and longitude of NPR-1 have been identified from the commenter's data base and are vision to Section 3.7 listing those monuments is included in Chapter 4.

**Errata:** Insert the following paragraph and table after page 3.7-2,paragraph 2:

The site contains various geodetic control monuments of the National Geodetic Survey. The following list of monuments in the general region of the longitude and latitude of NPR-1 was prepared from the Survey's web site at <http://www.ngs.noaa.gov>. Federal Agencies are required to contact the Survey prior to moving any such monuments.

Geodetic Control Monuments within the Vicinity of NPR-1

PID	Designation	Lat	Lon
FU1982	V 548	351239	1192412
FU1400	Y 326 UOCO	351259	1193354
FU1401	R 951	351300	1193353

FU2311	LAKE RM 3	351301	1192237
FU2312	LAKE RM 4	351301	1192237
FU2310	LAKE	351302	1192237
FU1980	U 548	351315	1192320
FU1402	1275 USGS	351321	1193414
FU1403	CDS	351324	1193417
FU2309	195 DWR	351326	1192232
FU1977	EH 11 DWR	351328	1192643
FU2303	S 548	351345	1192035
FU2308	T 548	351346	1192232
FU3243	J 1292	351352	1193447
FU2302	R 548	351358	1192048
FU2305	L 1098	351358	1192126
FU2297	192 DWR	351402	1192016
FU1976	EH 10 DWR	351403	1192642
FU1406	Z 326	351425	1193517
FU1975	EH 9 DWR	351442	1192725
FU1407	A 951	351444	1193538
FU1589	EH 8 DWR	351516	1192747
FU1588	EH 7 DWR	351605	1192758
FU3676	PUFF	351606	1192427
FU3679	PIPE MARK NEAR STA PUFF 1958	351606	1192427
FU3675	ELK 2	351611	1192519
FU3677	ELK	351612	1192519
FU3678	BFI 1334	351612	1192519
FU1587	EH 6 DWR	351635	1192804
FU1503	184 DWR	351711	1192009
FU3682	WEST ELK	351717	1193038
FU1586	EH 5 DWR	351722	1192751
FU1506	K 1098 K CO	351734	1192047
FU1514	183 A DWR	351747	1192101



FU1518	182 A DWR	351801	1192128
FU1517	183 DWR	351801	1192130
FU1525	182 DWR	351825	1192217
FU1571	181 DWR	351839	1192305
FU1576	180 A DWR	351906	1192338
FU1584	EH 3 DWR	351911	1192750
FU1568	Z 980	351929	1192335
FU1581	180 DWR	351934	1192443
FU1565	H 981	351950	1192442
FU1583	EH 2 DWR	351953	1192744
FU1558	179 DWR	351958	1192550
FU1582	EH 1 DWR	352020	1192755
FU1551	178 DWR	352022	1192649

**Comment Code:**Federal Government Agency Agency[DOI-1](#)

**Response:** DOE is in receipt of a letter dated August 6, 1997, from the DOI Regional Solicitor confirming that the requirements of P.L. 104-106 meet the need to reconsult under the terms of the 1995 Biological Opinion. See Major Issue 1.3, Reconsultation Under the Biological Opinion, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency Agency[DOI-2](#)

**Response:** DOE agrees that the No Action Alternative and Alternative to the Proposed Action both result in greater protection to threatened and endangered species than the Proposed Action. However, DOE believes that the Proposed Action is the only action which would be consistent with Congress' interest as expressed in P.L. 104-106. See Major Issue 1.1, DOE's Preferred Alternative, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency Agency[DOI-3](#)

**Response:** The operation prescribed in the 1995 Biological Opinion will become a condition of the sale of NPR-1 if the purchaser(s) elect to accept the Biological Opinion. See Major Issue 1.6.1, Implementation Through the Sales Contract, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency Agency[DOI-4](#)

**Response:** The range of alternatives for analysis does include an alternative with activities within the Biological Opinion -- the No Action Alternative. As discussed under Major Issue Section 1.2, DOE and Kern County believe that a private owner likely would aggressively develop the resources contained within NPR-1 while government development would occur more slowly. As a result, the alternatives considered in the DSEIS/PEIR are based upon reasonable development cases that clearly exceed limits prescribed by the Biological Opinion. See Major Issue 1.2,

Relationship of Alternatives to the Biological Opinion, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-5](#)

**Response:** DOE believes that the numerous biological studies conducted at NPR-1 form an adequate basis for projecting possible measures that could mitigate impacts caused by future development. Nonetheless, the DSEIS/PEIR does not imply that the measures identified would be exclusively sufficient. The actual measures to be employed in the long-run would result from discussions with the new owner(s) of NPR-1 during the process of obtaining a permit under Section 10 of the ESA. See Major Issue 1.6.3, Sufficiency of Information for Mitigation, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-6](#)

**Response:** See response to Comment DOI-2 and Major Issue 1.1, DOE's Preferred Alternative, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-7](#)

**Response:** DOE and Kern County and the three processes of incorporating mitigation measures discussed in Major Issue 1.4, Loss of Affirmative Federal Obligation, would help mitigate the loss of Federal ownership of NPR-1 and the associated Federal stewardship of environmental resources.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-8](#)

**Response:** DOE and Kern County note CDFG's and DOI's position in their comment letters with respect to the VFHCP and agree that incorporation of Elk Hills into the VFHCP is unlikely as a short-term mitigation vehicle. The DSEIS/PEIR addressed a number of alternative mitigation implementation methods of which the VFHCP was given as an example of one type (a regional HCP). Thus, it is retained in the DSEIS/PEIR as an example of a regional HCP and a potential long-term mitigation vehicle.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-9](#)

**Response:** DOE and Kern County agree with the comment. However, the program is retained in the document because it is a term and condition of the Biological Opinion which the new owner would have to comply with. See the Department of Interior letter in the Appendix.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-10](#)

**Response:** DOE and Kern County agree with the comment. As noted in the DSEIS/PEIR on page 4.5-4, "[i]n order to be able to expand the current level of exploration and production, ultimately, the new owner would need to obtain a Section 10 permit."

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-11](#)

**Response:** DOE and Kern County agree with the comment. See the revised text for Page 3.7-3, contained within this document.

**Errata:** Change page 3.7-3, paragraph 1, sentence 2 and 3 to read:

The Kern Water Bank Plan is part of the Kern Water Bank Authority and will be managed for water recharge and endangered species. The Bank is approximately 20,000 acres, which is located near the eastern border of NPR-1 and is the subject of an HCP application.

**Comment Code:**Federal Government Agency[DOI-12](#)

**Response:** See response to Comment DOI-4 and Major Issue 1.2,Relationship of Alternatives to the Biological Opinion, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-13](#)

**Response:** See response to Comment DOI-7 and Major Issue 1.4, Loss of Affirmative Federal Obligation, in Chapter 1.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-14](#)

**Response:** DOE and Kern County agree with the comment on simultaneously negotiating with both FWS and CDFG. See the revised text for Section 4.5.

**Errata:** Delete on page 4.5-4, paragraph 6, the last two sentences and insert the following:

It would be in the new owner's best interests to ensure that the additional measures taken to mitigate the impacts of future planned expansion are approved at both the state and Federal levels. Simultaneous negotiations with CDFG and the USFWS would allow the new owner to develop mitigation measures that meet their requirements of CEQA and the California ESA, as well as the Federal ESA. Such joint negotiations would ensure that expanded development of NPR-1 could be carried out as swiftly as possible, without sacrificing the existing level of mitigation. This is the procedure currently employed in developing HCPs and conducting Section 7 consultations in the San Joaquin Valley for jointly listed species.

**Comment Code:**Federal Government Agency[DOI-15](#)

**Response:** The paragraph in question did not mention the VFHCP, but did imply it. See the revised text for Page 4.5-5, in Chapter 4.

**Errata:** Change page 4.5-5, paragraph 2, sentence 3 to read:

However, even that impact could be mitigated to less than significant levels within the meaning of CEQA by the adoption of mitigation measures properly structured to account for the loss of the Federal protection of NPR-1 and NPR-2.

**Comment Code:**Federal Government Agency[DOI-16](#)

**Response:** The text on Page 4.5-5 actually states that the impact have been "largely" mitigated through implementation of mandatory measures in a series of Biological Opinions. The DSEIS/PEIR indicates that DOE did not establish the conservation area.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-17](#)

**Response:** DOE and Kern County agree with the comment and note that the DSEIS/PEIR discussed this on Page 4.5-6.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-18](#)

**Response:** Section 4.5 does reach this conclusion. However,the DSEIS/PEIR also notes that appropriate mitigation measures imposed by the relevant Federal and state agencies with jurisdiction over threatened and endangered species should mitigate these impacts to less than significant. Also, CEQA requires that all feasible measures that could mitigate to less than significant be incorporated before a state agency may approve a project.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-19](#)

**Response:** Comment noted. No response required. See Major Issue1.5, Native American Cultural Resources.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-20](#)

**Response:** Comment noted. See revision to the Executive Summary.

**Errata:** Change page ES-2 paragraph 4, sentence 3 to read:

Estimated total production for the Commercial Development Case ranges from approximately 849 to 1,225 million barrels of oil equivalent per year from 1997 to 2034.

**Comment Code:**Federal Government Agency[DOI-21](#)

**Response:** Comment noted. See revision to the Executive Summary in Chapter 4.

**Errata:** Change page ES-5, paragraph 2, sentence 5 to read:

Estimated total production for the Reference Case is approximately 730 million barrels of oil equivalent (including oil, gas, and other non-gas liquids) per year from 1997 through 2034.

**Comment Code:**Federal Government Agency[DOI-22](#)

**Response:** See revision to the Executive Summary.

**Errata:** Change page ES-7, paragraph 3, sentence 3 to read:

Expected activities in NPR-2 include drilling and completing approximately 75 new production wells.

Change page ES-7, paragraph 3, sentence 6 to read:

In addition, petroleum support facilities would be kept in good repair to ensure operation of tank settings and oil/water/gas hydration/lease automatic custody transfer (LACT) units.

**Comment Code:**Federal Government Agency[DOI-23](#)

**Response:** Comment noted. DOE currently permits the wells following procedures very similar to BLM's. See revision

to the Executive Summary.

**Errata:** Change page ES-8, item 2, sentence 1 to read:

NPR-2 Sale of Remaining Mineral Rights Subject to Current Leases and Transfer of Remaining Interest to BLM for Management of the Surface Interest in Accordance with Federal Law would have DOE sell the remaining mineral rights in NPR-2, subject to existing leases, and then transfer DOE's current permitting and management responsibilities for the existing leases to BLM.

**Comment Code:**Federal Government Agency[DOI-24](#)

**Response:** DOE agrees that management of NPR-2 by BLM (the recommended action) would continue the Federal protection to biological resources on the NPR-2 property. However, the cumulative impacts from the sale of NPR-1 would still be significant.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-25](#)

**Response:** The sentence is referring to the purchase of a non-operating working interest in NPR-1 by small refiners. This would allow these entities to actually own a portion of the production of NPR-1.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-26](#)

**Response:** Comment noted. See revision to Section 2.3.2.1 in Chapter 4.

**Errata:** Change page 2.3-3, paragraph 1, sentence 6 to read:

The Department of Interior's Minerals Management Service would collect royalties from NPR-2 production, as it does for all leases managed by BLM.

**Comment Code:**Federal Government Agency[DOI-27](#)

**Response:** Comment noted. See revision to Section 2.3.3.2 in Chapter 4.

**Errata:** Change page 2.3-5, paragraph 5, sentence 5 to read:

Like the purchasers of the smaller non-operating interests in Sales Scenario 1 of the proposed NPR-1 action, the buyers of the remaining mineral rights would not control how future development of reserves would occur unless the buyer were the same as the existing lessee of a given tract of land.

**Comment Code:**Federal Government Agency[DOI-28](#)

**Response:** Comment noted. See revision to Section 2.4.1 in Chapter 4.

**Errata:** Change page 2.4-1, paragraph 3, sentence 4 to read:

For comparative purposes, that EIS estimates that 150 to 260 new wells would be drilled annually on Federal lands compared to the highest projected well drilling activities under this DSEIS/PEIR of 89 new wells to be drilled on NPR-1 and NPR-2.

**Comment Code:**Federal Government Agency[DOI-29](#)

**Response:** In 1993 the field had a flat rate expected life of 9.4 years at the 1993 rate of production. DOE recognizes

this is a conservative number and that a more realistic production period could be calculated considering the field rate of decline. However the 1993 Annual Review of California Oil & Gas Production states the life of the field, in terms of 1993 production, as 9.4 years.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-30](#)

**Response:** Comment noted. See revision to Section 2.4.2 in Chapter 4.

**Errata:** Revisions to Section 2.4:

1. Change page 2.4-6, partial paragraph 1, sentence 1 to read:

Producers at Midway-Sunset include BLM lessees and more than 50 private companies and independents.

2. Insert the following after page 2.4-3, paragraph 3, sentence 1:

Producers at McKittrick include BLM lessees and more than 13 private companies and independents.

3. Change page 2.4-6, paragraph 7, sentence 4 to read:

Producers at Cymric include BLM lessees and more than 25 private companies and independents.

**Comment Code:**Federal Government Agency[DOI-31](#)

**Response:** Comment noted. The referenced table entry has been modified accordingly.

**Errata:** Change page 3.2-3, Table 3.2-1, fourth row to read:

Facility: Section 20 trash dump

Waste Managed or Contamination (if applicable): general trash

Activity and Status: Cleaned up and sold by ARCO to Vintage in 1997

References: Dave Bone (BPOI)

**Comment Code:**Federal Government Agency[DOI-32](#)

**Response:** DOE agrees with the comment. See the revised text for Page 4.5-37, contained within this document.

**Errata:** Replace page 4.5-37, paragraph 6, with the following:

Mitigation measures under BLM management would be virtually identical to those under the "No action - continued DOE leasing" alternative since both are federal agencies and have the same requirements under the Endangered Species Act.

**Comment Code:**Federal Government Agency[DOI-33](#)

**Response:** DOE and Kern County agree with the comment. The appropriate changes will be indicated in the revisions of this document.

**Errata:** Replace page 4.5-39, Table 4.5-10, the "Transfer to BLM" column with the following:

The same abbreviations as appear in the "continued DOE leasing"column.

**Comment Code:**Federal Government Agency[DOI-34](#)

**Response:** Comment noted. See revision to Appendix C, Section C.2.1.1 in Chapter 4.

**Errata:**

1. Change page C.2-1, paragraph 1, sentence 1 to read:

Currently there are approximately 200 active wells, 225 abandoned or idle wells, 34 tank settings and six oil/water sumps on DOE lands within NPR-2.

2. Change page C.2-1, paragraph 1, sentence 2 to read:

Continued production and development of known reserves at NPR-2 would require drilling and completing new production wells, commonly known as in fill wells.

3. Change page C.2-1, paragraph 1, sentence 4 to read:

The additional production or in fill wells would require pipelines, pumps, storage tanks, and other permanent equipment.

**Comment Code:**Federal Government Agency[DOI-35](#)

**Response:** Comment noted. See revision to Section C.2.1.1 in Chapter 4.

**Errata:** Change page C.2-1, paragraph 4, bullet 2 to read:

Workers are trained in emergency response procedures to protect human health and the environment.

**Comment Code:**Federal Government Agency[DOI-36](#)

**Response:** Comment noted. See revision to Appendix C, Section C.2.1.2. of Chapter 4.

**Errata:** Appendix C

1. Change page C.2-2, paragraph 2, sentence 1 to read:

The private companies that conduct petroleum-related activities on DOE-owned NPR-2 lands include Chevron USA, Inc. Fred S. Holmes; Aera Energy; Oakland Petroleum Operating Company; Phillips Petroleum Company; Texaco, USA; UNOCAL Corporation; Valley Waste Disposal Company; Vintage Petroleum Company; and numerous petroleum pipeline companies (see Figure 1.4.1).

2. Change page C.2-2, paragraph 5 to read:

Aera Energy / Oakland Petroleum Operating Company. Aera has three leases totaling 280 acres (110 ha) in Section 32G. Aera has reassigned one of these leases totaling 80 acres (32 ha) to the Oakland Petroleum Operating Company and has not conducted operations on lands under the other two leases for over 30 years. Aera is considering reassigning the remaining two leases as well. Oakland is currently operating one tank setting and two stripper wells. The stripper wells produce eight barrels/d. The tank setting consists of one 500-barrel shipping tank, one 100-barrel produced water tank, one 500-barrel oil/ water separator, and one covered oil/water sump. Oakland generates approximately 9,000 barrels of produced water per year, which is disposed of by injection off-site.

**Comment Code:**Federal Government Agency[DOI-37](#)

**Response:** Comment noted. See revision to Appendix C, Section C.2.1.2. in Chapter 4.



**Errata:** Change page C.2-3, paragraph 2, sentence 3 to read;

Texaco operates approximately 124 oil and gas wells and produces approximately 447 barrels/d of oil, 6,857 MCF/d of gas, and 6,300 gallons/d of natural gas liquids.

**Comment Code:**Federal Government Agency[DOI-38](#)

**Response:** As indicated in Table 3.2-1 on page 3.2-3 of the DSEIS/PEIR, remediation of the Broad Creek #3 facility was completed in 1994. The information presented on page C.2-3 was out of date, is no longer relevant, and has been deleted from Section C.2.1.2.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-39](#)

**Response:** DOE and Kern County believe that the DSEIS/PEIR with the changes in Chapter 4 accurately reflects the actual impacts of the Proposed Action.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-40](#)

**Response:** Comment noted. See Major Issue 1.2, Relationship of Alternatives to the Biological Opinion.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-41](#)

**Response:** See response to Comment DOI-5 and Major Issue 1.6.3, Sufficiency of Information for Mitigation.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-42](#)

**Response:** The DSEIS/PEIR states that the Proposed Action (DOE's Preferred Alternative) is not the least environmentally damaging alternative. See response to Comment DOI-2 and Major Issue 1.1, DOE's Preferred Alternative.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-43](#)

**Response:** See Major Issue Section 1.4, Loss of Affirmative Federal Obligation. Also, see response to Comment DOI-7.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-44](#)

**Response:** See response to Comment DOI-8.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOI-45](#)

**Response:** DOE and Kern County agree that the transfer is contingent on the new owner following the projection



description that was provided as part of the consultation process leading to the 1995 Biological Opinion. See Major Issue Section 1.2, Relationship of Alternatives to the Biological Opinion.

**Errata:** None.

**Comment Code:**Federal Government Agency[DOL-46](#)

**Response:** DOE and Kern County acknowledge the concern expressed in this comment and will continue to work with the Native American groups and the SHPO in the development of a Programmatic Agreement for mitigation. See Major Issue 1.5, Native American Cultural Resources and revised Section 4.6.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-1](#)

**Response:** Comment noted. See responses to commenter's three key issues, which follow.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-2](#)

**Response:** As the DSEIS/PEIR indicates, the model was run assuming maximum permitted emissions, that is, assuming the sources ran 24 hours a day at maximum emission rates. Actual emission rates generally run much less than modeled rates as the above assumptions are conservative. Therefore it is expected that actual 2001 emissions would not contribute to a violation of regional air quality standards. However, as noted in the document, mitigation measures could readily be implemented to achieve consistency with the state Implementation Plan should this occur. The comment of the San Joaquin Valley Unified Air Pollution Control District, which is the regional agency charged with implementing the State Implementation Plan, is relevant to this comment. That agency sees no significant air issues from the Proposed Action. However, see the revision to Section 4.3.3.2, clarifying the obligation for consistency with the State Implementation Plan.

**Errata:** Insert after page 4.3-5, paragraph 5, sentence 2:

Any such permits would only be issued after a clear demonstration of consistency with the State Implementation Plan.

**Comment Code:**Federal Government Agency[EPA-3](#)

**Response:** DOE and Kern County acknowledge the concern. See the discussion of sales contract terms and conditions in Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-4](#)

**Response:** At the current time there are no PCB's in the transfer area awaiting disposal at a properly permitted facility. Any PCB's in the transfer area as well as any hazardous waste at the other transfer areas would be disposed of at a properly permitted facility before transfer of NPR-1 to the new owner. See revision to Section 3.2.3 in Chapter 3. The responsibility for PCB's in use would be resolved in the negotiation of the contract for sale of NPR-1. However that issue might be resolved will not affect the conclusions of the document with respect to the impacts of the Proposed Action due to hazardous and toxic waste.

**Errata:** Insert the following footnote on page 3.2-3 at the end of the first partial sentence:

Any hazardous waste or wastes containing PCBs at these transfer areas would be disposed of at a properly permitted facility before transfer of NPR-1 to a new owner.

**Comment Code:**Federal Government Agency[EPA-5](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-6](#)

**Response:** Comment noted. See response to Comment EPA-2.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-7](#)

**Response:** See response to Comment EPA-2.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-8](#)

**Response:** The stationary source emissions presented in pounds per hour are inputs used in running the models in order to calculate the appropriate air concentrations for comparison with Federal and state ambient air quality standards. These results are found in Tables 4.3-3 and 4.3-4. As discussed in the text, these tables present results under existing production rates (1995) and the peak year of anticipated production rates. However, as the discussion indicates, the 1995 results are based on actual emissions (reflecting the fact that, as the comment notes, equipment does not run 24 hours a day). The 2001 projections are based on maximum permitted limitations, which generally assume that equipment does operate 24 hours a day. These higher limitations were used in modeling the 2001 projections in ordering to estimate the cumulative air impacts of commercial development. Tables 4.3-1 and 4.3-2 present the current and projected emissions in lb/hr for stationary sources and lb/day for mobile sources. Because numerous stationary sources exist, an average lb/hr emission rate was computed. (Note that the 1993 EIS served as the template for developing the tables for presentation in this EIS.) DOE agrees with EPA that a daily or annual emission levels would be useful for permitting purposes; however, DOE did not calculate them for these efforts. Instead DOE assumed that the anticipated production levels would increase emissions and thus require permit modifications under which the future owner would need to conduct additional review of applicable regulatory provisions (e.g., new source review and prevention of significant deterioration). For the purpose of this analysis, DOE conducted air quality modeling to determine the environmental impacts.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-9](#)

**Response:** See response to EPA-8.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-10](#)

**Response:** See Major Issue 1.6.1, Implementation Through the Sales Contract.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-11](#)

**Response:** See response to Comment EPA-4.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-12](#)

**Response:** See the response to Comment EPA-4.

**Errata:** None.

**Comment Code:**Federal Government Agency[EPA-13](#)

**Response:** Comment noted. DOE will so advise EPA Region IX.

**Errata:** None.





## State Government Agencies

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**Comment Code:**State Government Agency[CDC-1](#)

**Response:** DOE agrees with the comment. See the revised text for the referenced Section contained within this document.

**Errata:** Insert the following after page ES-10, paragraph 3,sentence 4:

The risk of contamination is also mitigated somewhat by the fact that local water quality is typically nonpotable due to high total dissolved solids levels.

**Comment Code:**State Government Agency[CDC-2](#)

**Response:** Comment noted. See revisions to Section 2.2.

**Errata:** Change page 2.2-1, paragraph 4, sentence 4 to read:

These requirements include environmental compliance, financial responsibility, well activity approval, well closure approval, and proper conservation activities of the natural resource.

**Comment Code:**State Government Agency[CCV-1](#)

**Response:** Comment noted. See revision to 2.2 in Chapter 4.

**Errata:** Insert the following on page 2.2-1, paragraph 1, sentence3:

....(for commercial Class II injection wells).

**Comment Code:**State Government Agency[CCV-2](#)

**Response:** Comment noted. See revision to Section 2.2 in Chapter 4.

**Errata:** Insert the following after page 2.2-2, paragraph 4, sentence4:

The DOGGR's discretionary Permit to Conduct Well Operations could include conditions used for environmental mitigation required in the NEPA/CEQA process.

**Comment Code:**State Government Agency[CCV-3](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**State Government Agency[CCV-4](#)

**Response:** Comment noted. See revision to Section 2.4.2. in Chapter4.

**Errata:** Change page 2.4-2, paragraph 4, sentence 5 to read:

Although Elk Hills is the fourth largest oil field in California, from 1994 to 1995 it ranked third among the top ten oil fields with the largest production decreases.

**Comment Code:**State Government Agency[CCV-5](#)

**Response:** Comment noted. See revision to Section 2.4.2. in Chapter4.

**Errata:** Change page 2.4-3, paragraph 1, sentence 6 to read:

Buena Vista ranks tenth among the California giant oil fields, with ultimate recovery of 100 million barrels or more.

**Comment Code:**State Government Agency[CFG-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-2](#)

**Response:** DOE and Kern County generally agree with the comment. See Major Issue 1.6, Mitigation Implementation Process. In addition, see response to Comment CFG-18 below with respect to modifications to the mitigation measures.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-3](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-4](#)

**Response:** The specific locations of future activities (for future oil and gas activities, principally drilling wells and laying pipelines) cannot be predicted, even for the No-Action Alternative. In part this is due to constantly ongoing analysis of information about the oil and gas reservoirs that results in frequently changing plans and partly due to the requirements of the Biological Opinion that require pre-activity surveys shortly before the activity is to occur and the relocation of the activity if protected species are found in the proposed area of activity. Thus specific location of future development cannot be predicted within any certainty. However, the existing mitigation measures under the Biological Opinion were written broadly enough to apply across NPR-1 and to avoid significant impacts at specific locations. The proposed purchaser has accepted. Whenever Occidental seeks a Section 10 permit immediately or to accept the transfer initially and subsequently seek a Section10 permit, DOE and Kern County believe, based on the experience under the Biological Opinion, that broadly written Section 10 requirements would also be sufficient to mitigate potential impacts for those terms and conditions that are similar. As discussed in Section 4.5 of the document, the terms and conditions of the Biological Opinion and the Section 10 permit would not all be similar because of the difference between the Federal and private sector requirements under the Endangered Species Act.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-5](#)

**Response:** DOE is unable to limit the scope of future development projects as P.L. 104-106 requires that DOE sell all right title and interest in NPR-1. DOE believes that it is reasonably foreseeable to estimate future production levels by either the government or a private owner. It is highly speculative, however, to predict the scope, extent, or intensity of future development in detail after a 60-year or more period that oil and gas operations are likely to be ongoing. While there are no available plans or trends that would indicate that NPR-1 would be developed for agricultural or residential purposes subsequent to its use as an oil field, those are the two most likely alternatives for development. DOE believes that the DSEIS/PEIR was properly scoped, because it discusses (on page 2.5-1) that under commercial ownership the

property could undergo future development for those purposes. The impacts of that development are also discussed on page 4.7-1. As the document indicates, such future development remains so remote as to be speculative. Agricultural opportunities would be limited because of terrain and soils. Future residential development would require a Kern County General amendment. As the document is a program EIR, any future development that involves changes to the current use, or this document, would require additional CEQA documentation and if determined to be significant, additional mitigation.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-6](#)

**Response:** DOE and Kern County agree with the comment. The discussion of applicable regulations has been amended.

**Errata:** Insert the following paragraph after page 3.4-1, paragraph3:

The seasonal drainages present on NPR-1 are generally under the jurisdiction of the California Department of Fish and Game. Under the Fish and Game Code (section 1600 et seq.), the Department must be notified and streambed alteration agreements must be obtained for work in the beds, banks or channels of lakes, ponds, rivers, or streams.

**Comment Code:**State Government Agency[CFG-7](#)

**Response:** Comment noted. As indicated in the discussion of Section 3.5, see the 1993 SEIS for more information about Plant and Animal Communities on NPR-1.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-8](#)

**Response:** DOE and Kern County disagree that the loss of these programs is a significant impact. The DSEIS/PEIR sets out the CEQA standards for significance, and the loss of these programs does not meet those standards. However, these programs are an element of the affirmative Federal obligation to protect the environment and DOE agrees that the loss of that obligation is potentially significant. See Major Issue 1.4, Loss of Affirmative Federal Obligation. Note that, as the DSEIS/PEIR indicates, some reductions in these programs have already occurred for reasons unrelated to the divestiture. Kern County also notes that the spectrum of Federal, state and local programs to protect endangered species, including the FESA and the CESA would still apply.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-9](#)

**Response:** DOE and Kern County agree with the comment. No response required.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-10](#)

**Response:** See response to Comment CFG-5 regarding post oil and gas production development. With respect to off-site pipelines, as the DSEIS/PEIR discusses, the projected levels of production under all of the alternatives are less than past levels. Therefore, all needed transportation infrastructure has already been built and there are not expected to be any off-site requirements for pipelines. Seismic testing will occur both on-site and off-site by both the proposed purchaser of the and other private companies exploring for oil off-site. In DOE's experience, seismic testing does not cause significant impacts to plant and animal communities and, further, the difference in impacts between the No Action alternative and Proposed Action cannot be analyzed either quantitatively or qualitatively.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-11](#)

**Response:** Table 4.5-1 accompanies the section summary and as its title indicates, summarizes the impacts after mitigation. Table 4.5-9 indicates which impacts are significant and whether or not the impact can be mitigated to less than significant.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-12](#)

**Response:** DOE and Kern County disagree with the comment. The document does indicate which impacts are significant, quantifying them where possible. Also see Major Issue 1.6, Mitigation Implementation Process, and the discussion of CEQA requirements for identifying mitigation measures in EIR's.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-13](#)

**Response:** See response to comments CFG-4 and CFG-5. DOE and Kern County believe that the scope of impact disclosure was comprehensive, but agrees with the point requiring appropriate mitigation to cover areas that are more ecologically valuable than others.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-14](#)

**Response:** DOE and Kern County note CDFG's and DOI's position in their comment letters with respect to the VFHCP and agree that incorporation of Elk Hills into the VFHCP is unlikely as a short-term mitigation vehicle. See the response to Comment DOI-6. The DSEIS/PEIR addressed a number of alternative mitigation implementation methods of which the VFHCP was given as an example of one type (a regional HCP). Therefore, the DSEIS/PEIR did not rely upon the VFHCP. DOE and Kern County believe that VFHCP remains a valid example and further that a regional HCP is a reasonably foreseeable long-term alternative that a private owner may wish to pursue. Thus they are retained in the DSEIS/PEIR.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-15](#)

**Response:** See Major Issue 1.6, Mitigation Implementation Process. Further, to the extent that the private owner selects to develop the property in a manner different than is described in the FSEIS/PEIR, the document is a Program EIR and such changes would involve additional opportunity for review and development of mitigation measures. Also, note that as the DSEIS/PEIR discusses, mitigation measures designed to protect threatened and endangered species are also beneficial to other species of the plant and animal communities.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-16](#)

**Response:** See Major Issue 1.6, Mitigation Implementation Process and response to Comment CFG-12.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-17](#)

**Response:** DOE and Kern County agree with the comment. See Major Issue 1.6, Mitigation Implementation Process.



Mitigation measures resulting from this process will meet these criteria.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-18](#)

**Response:** These measures will not be designated as required until the DOE ROD and final approval by Kern County. See Major Issue 1.6, Mitigation Implementation Process. These suggested changes also appear to reflect limiting future development to the limits in the 1995 Biological Opinion. See Major Issue 1.2, Relationship of Alternatives to the Biological Opinion. With respect to BRM 18, an HCP is required as part of a Section 10 permit, the proposed purchaser is likely to seek and therefore, DOE and Kern County do not believe that it should be deleted from the document. However, the measure has been revised to add small-scale and medium-scale HCP's as alternatives to participating in a regional HCP. With respect to the compensation ratios, the ratios in the document are considered to be estimates; the final ratios would be negotiated between the new owner and the appropriate regulatory agency.

**Errata:** Change page 4.5-31 BRM-16 in Table 4.5-8 to read:

Transfer Section 7 permit with all its terms and conditions, including the requirements for the establishment of a 7,075 acre conservation area.

**Comment Code:**State Government Agency[CFG-19](#)

**Response:** Comment noted and DOE and Kern County generally agree with it. See Major Issue 1.6, Mitigation Implementation Process, for the process for incorporating mitigation in the ROD, MAP, Mitigation Findings, Mitigation Monitoring Program, and Notice of Determination.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-20](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation, which discusses how DOE plans to balance its environmental obligations with the requirements of P.L. 104-106.

**Errata:** None.

**Comment Code:**State Government Agency[CFG-21](#)

**Response:** DOE and Kern County greatly appreciate the efforts of CDFG to prepare this draft MOU and have incorporated its measures as potential mitigation in Section 4.5 as indicated in the revisions to this document. Most mitigation measures provided in the CDFG MOU were already included in the DSEIS/PEIR. Regarding the mitigation measures that were not already included in Section 4.5 of the DSEIS/PEIR, see the revisions below. It should be noted that these measures were included to assure that the document is as inclusive of mitigation measures as possible. Final determination of mitigation measures to be actually adopted will be determined in the NEPA ROD process, future CEQA processes and negotiations between the new owner and the regulatory agencies.

**Errata:** Change the following mitigation measures below Table 4.5-8 on page 4.5-32:

Memorandum of Understanding Mitigation measures (MOUMs). In addition to those measures previously listed, the draft CESA MOU by and between the Elk Hills Unit Operator (EHUO) and the California Department of Fish and Game (CDFG) proposes additional mitigation measures.

MOUM-1: At least thirty days before initiating ground-disturbing activities, the EHUO should designate a representative responsible for communications with CDFG and overseeing compliance with the CESA MOU. CDFG should be notified in writing of the representative's name, business address and telephone number, and should be notified in writing if a substitute representative is designated.



MOUM-2: The EHUO should notify CDFG fourteen days before initiating ground-disturbing activities. CDFG should specify other notification timing at its discretion.

MOUM-3: The EHUO should clearly delineate the boundaries of the project site by posting stakes, flags, and/or rope or cord, and should post signs and place fencing as necessary to exclude vehicle traffic unrelated to project construction.

MOUM-4: All project-related parking and equipment storage should be confined to the construction site or to previously disturbed off-site areas. Undisturbed areas and off-site Covered Species habitat should not be used for parking or equipment storage.

MOUM-5: The EHUO should conduct an orientation program for all persons who will work on-site during construction. The program should consist of: 1) a brief presentation from a person knowledgeable about the biology of the Covered Species, the terms of the CESA MOU and CESA; 2) a discussion of the biology of the Covered Species, their habitat needs, their status under CESA, and management measures of the CESA MOU; 3) a fact sheet containing all this information; and 4) upon completion of the orientation, employees shall sign a form stating that they attended the program and understand all protection measures.

MOUM-6: Exclusion zones should be established to protect dens, nests and burrows as necessary.

MOUM-7: At sites likely to support blunt-nosed leopard lizard, the EHUO should evaluate potential for take of that species before conducting ground-disturbing work. If there is a likelihood of take, the EHUO should modify the project, or employ relocation or other take-avoidance measures subject to CDFG's written or verbal approval.

MOUM-8: Disturbed areas should be revegetated within two years from the cessation of disturbance, given normal rainfall for two consecutive years.

MOUM-9: For specific construction projects, the EHUO should conduct compliance inspections once a week during construction. CDFG should require summary compliance reports on a monthly or longer basis for long-term projects, and should require a final compliance report within 45 days of project completion.

MOUM-10: The EHUO should allow CDFG representatives access to the project site to monitor compliance with the terms and conditions of the CESA MOU.

MOUM-12: The EHUO should provide habitat management lands prior to disturbances. The habitat lands should be on or adjacent to the EHU, and CDFG should require that they be adjacent to other protected lands.

MOUM-13: The habitat management lands acreage is based upon biological assessment of the project's impact on the Covered Species and an estimate of the acreage necessary to provide for adequate biological carrying capacity at a replacement location.

MOUM-14: The EHUO should agree to provide a recent preliminary title report and initial hazardous materials survey report for the habitat management lands to CDFG.

MOUM-15: Prior to the transfer of habitat management lands to CDFG, the EHUO should inspect the habitat lands and remove any debris located there on. A biologist acceptable to CDFG should be contracted to recommend suitable protection for the habitat management lands.

MOUM-15: If fee title to the habitat management lands is transferred to CDFG or to an approved non-profit corporation, the EHUO agrees to provide to CDFG or the non-profit corporation, a check in an amount to be determined by an analysis of the scope of management, but at least \$375/acre, drawn from a banking institution located within California for use as principal for a permanent capital endowment. Interest from this amount should be available for the operation, management and protection of the habitat management lands. Operation, management, and protection activities should include reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action designed to protect or improve the habitat values of the

habitat management lands. The endowment principal should not be drawn upon unless such withdrawal is deemed necessary by CDFG or non-profit corporation to ensure the continued viability of the species on the habitat management lands. Monies received by CDFG pursuant to this provision should be deposited in a special deposit account established pursuant to Government Code 16370. CDFG should pool the endowment with other endowments for the operation, management and protection of habitat management lands for local populations of the Covered Species.

**MOUM-16:** The EHUO should agree to reimburse CDFG for reasonable expenses incurred as a result of the approval and implementation of the project, including costs of title and document review, expenses incurred from other stateagency reviews, CDGF costs directly related to administration of the CESA MOU, including travel, personnel, and overhead. The Parties estimate that this project would create an additional cost to CDFG of no more than \$3,000.00 annually.

**Comment Code:**State Government Agency[CEC-1](#)

**Response:** DOE and Kern County agree with the comment. If development levels exceed those allowed under the 1995 Biological Opinion, the new owner would have to negotiate with USFWS and adopt the mitigation measures provided in a Section 10 permit.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-2](#)

**Response:** See Major Issue Sections 1.6.1, Implementation Through the Sales Contract, and 1.6.2, Implementation Through Other Permitting Processes.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-3](#)

**Response:** Comment noted. See Major Issues Section 1.6.1, Implementation Through the Sales Contract, Section 1.6.2, Implementation Through Other Permitting Processes, response to Comment CFG-18 (providing for a minimum compensation of 3 to 1), and revisions to DSEIS/PEIR Tables 4.5-4, 4.5-5, and 4.5-8.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-4](#)

**Response:** Comment noted. These measures are included in the DSEIS/PEIR. However, see Major Issues Sections 1.6.1, Implementation Through the Sales Contract, and 1.6.2, Implementation Through Other Permitting Processes. Also it should be noted that DOGGR permitting requirements include rehabilitation of the well pads after plugging and abandonment (this would not include other infrastructure). See also the DOE response regarding habitat restoration, Comment DOI-7.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-5](#)

**Response:** Comment noted with respect to the best alternative. See Major Issue 1.1, DOE's Preferred Alternative. The DSEIS/PEIR Alternative to the Proposed Action is divestiture involving continued government ownership of the land with commercial petroleum production. This Alternative is fully developed and analyzed in the DSEIS/PEIR. However, because the impacts are largely a combination of the impacts of the Proposed Action and the No-Action Alternative, the discussion of this alternative incorporates much of the discussion of impacts by reference rather than repeating it. Leasing of NPR-1 to private entities under BLM management is Scenario 1 under the Alternative. For the reasons discussed in the DSEIS/PEIR, this Scenario is not sufficiently different from Scenario 2, (transfer of NPR-1 to

a federally owned corporation) to justify inclusion as a separate alternative from Scenario 2 since impacts from both Scenarios are expected to be nearly identical.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-6](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-7](#)

**Response:** Generally, DOE and Kern County agree with this observation. However, with regard to the comment that there is no assurance that the NPR-1 biological resources will be protected, DOE and Kern County disagree. See Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-8](#)

**Response:** Comment noted. Public Law 104-106 allows the transfer of an otherwise non-transferable Section 7 permit (i.e., 1995 Biological Opinion) to the new owner. The proposed purchaser of NPR-1, Occidental , has accepted the terms and conditions of the 1995 Biological Opinion. Occidental must establish a 7,075 acre conservation area and habitat management program by Nov. 1998. With regard to the implementation of mitigation measures, see Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-9](#)

**Response:** Comment noted with respect to the mitigation measures. However, the new owner will be under no obligation to "consult" with USFWS either before or after 2035 as consultation usually is used under Section 7. Further, P.L. 104-106 does not authorize the modification of the 1995 Biological Opinion. Instead, as the DSEIS/PEIR indicates, the new owner would need to seek a Section 10 permit when the Biological Opinion expires or the new owner wishes to exceed its limits. Obtaining a Section 10 permit when the Biological Opinion expired would be required under the Endangered Species Act. See also Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-10](#)

**Response:** Comment noted. See Major Issue 1.6, Mitigation Implementation Process, Major Issue 1.4, Loss of Affirmative Federal Obligation, Comment CFG-21 and the response to Comment EDF-3.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-11](#)

**Response:** Comment noted. See response to Comment CEC-4.

**Errata:** None.

**Comment Code:**State Government Agency[CEC-12](#)

**Response:** Comment Noted. See response to Comment CEC-5

**Errata:** None.





## Local Government Agencies

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**Comment Code:**Local Government Agencies[DOA-1](#)

**Response:** Comment Noted. No response Required

**Errata:** None.

**Comment Code:**Local Government Agencies[KCM-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Local Government Agencies[KCW-1](#)

**Response:** The Section referred to in the comment is shown as privately held land on the U.S. Department of the Interior Bureau of Land Management map for the Taft quadrangle. Figure 3.9-1 on page 3.9-9 is intended to show access to and across NPR-1 and NPR-2 sites. This map does not show the Taft Sanitary Landfill, so it does not give an erroneous impression that the landfill is outside the reserve.

**Errata:** None.

**Comment Code:**Local Government Agencies[KCW-2](#)

**Response:** The area in question is entirely within NPR-2 (Section25), not NPR-1. Although different scenarios involving the future use of NPR-2are evaluated in the DSEIS/PEIR for the purpose of evaluating cumulative impacts, the proposed action being considered is strictly the sale of NPR-1. The current plan, therefore, is for NPR-2 to remain in the hands of the Federal government without any change in access rights across that reserve.

**Errata:** None.

**Comment Code:**Local Government Agencies[KCW-3](#)

**Response:** Figure 2.5-1 on page 2.5-3 of the DSEIS/PEIR displays the habitat zones designated in the draft Kern County Valley Floor Habitat Conservation Plan (VFHCP). Most of NPR-2 is designated as a red zone, meaning that it would be reserved as natural habitat if the draft plan were adopted. This map is simply intended to show general areas, not site-specific locations, considered valuable habitat by Kern County, the California Division of Oil, Gas, and Geothermal Resources, and others who contributed to the draft plan. It is not intended to imply that the Taft Sanitary Landfill specifically would be subjected to the VFHCP or that the VFHCP takes precedence over another conservation plan developed by the Kern County Waste Management Department.

**Errata:** None.

**Comment Code:**Local Government Agencies[KCW-4](#)

**Response:** Section 3.2.3 starting on page 3.2-2 of the DSEIS/PEIR identifies the locations of all sites on NPR-1 where there is hazardous constituent contamination, a hazardous waste transfer area, or a non-hazardous waste landfill or area. All of these locations are identified by number and letter coordinates (e.g., 27R, 4G, etc.), which are keyed to the NPR-1 grid map shown on in Figure 1.3-2 on page 1.3-3. Therefore, DOE believes the locations of all sites of interest to the commenter are satisfactorily shown and that no new maps are needed.

**Errata:** None.

**Comment Code:**Local Government Agencies[KCW-5](#)

**Response:** There is no need to reaffirm this vehicular access because the area in question falls entirely within NPR-2, not NPR-1. Possible scenarios involving future uses of NPR-2 are considered in the DSEIS/PEIR only for the purpose of evaluating cumulative impacts associated with the proposed action, which is strictly the sale of NPR-1. The current plan is to keep NPR-2 under Federal ownership without any change in access across that reserve.

**Errata:** None.

**Comment Code:**Local Government Agencies[UAP-1](#)

**Response:** If the operations under the proposed action remain constant or increase slightly then the potential/allowable emissions will not increase; however, under the proposed action, the operations could potentially expand substantially and thus result in an increase of emissions. To determine the maximum increase, the EIS used actual and potential emissions, the methodology that would be required to modify the air permits.

**Errata:** None.

**Comment Code:**Local Government Agencies[UAP-2](#)

**Response:** The comment is accurate that the proposed action would be a change of ownership. Under the proposed action, however, production is expected to increase, thus resulting in expanded operations and increased actual and allowable emission levels. With the expected increase, new or revised permits would be needed.

**Errata:** None.

**Comment Code:**Local Government Agencies[UAP-3](#)

**Response:** Comment noted. The "textual modifications" noted in the comment appear in the following comments #4 through 9.

**Errata:** None.

**Comment Code:**Local Government Agencies[UAP-4](#)

**Response:** Comment noted. See the revisions for Section D.2.

**Errata:** Revise Table D. 2-1 to reflect the following changes:

- change the 8 hour state standard for CO from 9 to 9.0 ppm;
- delete the duplicate listing of the one hour standard for NO<sub>2</sub>;
- change the one hour standard for NO<sub>2</sub> in units of µg/m<sup>3</sup> from 131 to 470;
- add the one hour state standard for SO<sub>2</sub> of 0.25 ppm;
- add the 24 hour standard for SO<sub>2</sub> in units of µg/m<sup>3</sup> of 105; and
- change the text describing the state standard for Visibility-reducing Particles from "Insufficient amount..." with "In sufficient amount. . ."

**Comment Code:**Local Government Agencies[UAP-5](#)

**Response:** Comment noted. It appears that the correct table reference for the comment is D.2-3. See the revisions to Table D.2-3 ("Kern County Attainment Status") in Section D.2.1 and Table 3.3-1.

**Errata:** Revise Table D.2-3 and Table 3.3-1, Kern County Attainment Status, to reflect the following changes:

- The attainment status for the state standard for Ozone to "Severe Non attainment"; and
- The attainment status for the state standard for Carbon Monoxide to "Attainment".

Delete on page 3.3-5, paragraph 2, sentence 3.

Delete on page 3.3-6, paragraph 1, sentence 7 the following:

"including the Bakersfield Non attainment area."

**Comment Code:**Local Government Agencies [UAP-6](#)

**Response:** Commented noted. See the revisions to Section D.2.3.

**Errata:** Change page D.2-10, paragraph 2 to read:

Of the four monitoring stations in Kern County where samplers were in operation throughout the year, only the Bakersfield Golden State Highway site measured in exceedance of the annual NAAQS for PM<sub>10</sub> (60 ug/m<sup>3</sup> as an arithmetic mean) in 1995. All four stations with PM<sub>10</sub> monitoring, however exceeded the California standard (50ug/m<sup>3</sup>), while the federal 24-hour standard (150 ug/ m<sup>3</sup>) was exceeded at only one station (Oildale). These data show that PM<sub>10</sub> emissions continue to be a major air pollution problem in the county (DOE 1993).

**Comment Code:**Local Government Agencies [UAP-7](#)

**Response:** Comment noted. See the revised text for Section D.2.3.

**Errata:** Delete page D.2-11, paragraph 1, sentence 5.

**Comment Code:**Local Government Agencies [UAP-8](#)

**Response:** The area-specific meteorological data provided by NPR staff did not include information regarding actual average days of precipitation; consequently, the PART5 default value of 140 days per year was used. DOE recently determined that the average precipitation for the area is 34 days per year. The model was rerun to determine the impacts of the reduced precipitation and DOE's current practice of watering disturbed areas including unpaved roads. (Approximately 60,000 gallons per day of water are applied.) The resulting revised estimates of emission and ambient concentrations of PM<sub>10</sub> are slightly lower than the values presented in the DSEIS/PEIR, but do not change the conclusion presented in the DSEIS/PEIR.

**Errata:** None.

**Comment Code:**Local Government Agencies [UAP-9](#)

**Response:** In changing from government to private operations; the staff is expected to be reduced by 75 percent. (See response to Comment PEN-5.) In addition, DOE proposes to sell NPR under a unit operating agreement; therefore, employment levels are not expected to increase as a result of multiple ownership. See also Major Issue 1.3, Reconsultation Under the Biological Opinion.

**Errata:** None.





## Native American Organizations

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**Comment Code:**Local Government Agencies Native American Organization[RG1-1](#)

**Response:** DOE and Kern County recognize the cultural sensitivity of the region to Native Americans and will continue to work with those organizations as DOE implements the mitigation measures under the Programmatic Agreement with the SHPO described in the revised Section 4.6 in Chapter 4.

**Errata:** None

**Comment Code:**Local Government Agencies Native American Organization[RG1-2](#)

**Response:** DOE and Kern County acknowledge the concern expressed concerning the preservation of areas containing human remains. However, P.L.104-106 has directed DOE to sell all right, title and interest in NPR-1, so DOE lacks the authority to retain control over those areas or to assure that the areas continue to be under the protections of the National Historic Preservation Act. However, as discussed in Major Issue 1.8, Protecting Native American Cultural Resources, DOE hopes to identify a Federal agency that can join in the negotiations of land to be set aside under the 1995 Biological Opinion and can represent the concerns of the Native Americans in those negotiations. DOE intends to discuss this matter with the proposed purchaser as well.

**Errata:** None

**Comment Code:**Local Government Agencies Native American Organization[RG1-3](#)

**Response:** DOE and Kern County acknowledge the concern expressed in the comment, and believe that these concerns would be appropriate for inclusion in the negotiations over the establishment of the conservation area. See the response to Comment RG1-2.

**Errata:** None

**Comment Code:**Local Government Agencies Native American Organization[RG1-4](#)

**Response:** DOE will verify that a Native American conducted a second ceremony; if not, NPR-1 staff will be directed to provide that opportunity to you and other Native Americans with traditional ties to Elk Hills.

**Errata:** None.

**Comment Code:**Local Government Agencies Native American Organization[RG1-5](#)

**Response:** Comment noted. At this time, a repository for the artifacts has not been determined. DOE will work with concern Native Americans and the SHPO to determine an appropriate repository for the artifacts.

**Errata:** None

**Comment Code:**Local Government Agencies Native American Organization[RG1-6](#)

**Response:** The document is a Program Environmental Impact Report (PEIR) under CEQA. A PEIR is used under CEQA where the full extent of a project as not been identified and future analysis might be required under CEQA. Significant non-oil and gas related development of the property would require additional analysis under CEQA.

**Errata:** None



**Comment Code:**Local Government Agencies Native American Organization[RG2-1](#)

**Response:** DOE has recommended to the SHPO that four prehistoric sites were eligible for inclusion on the National Register of Historic Places and the SHPO has concurred in that recommendation. In addition, DOE has recommended to the SHPO that an Elk Hills Archaeological District be recognized. See the revised Section 4.6 in Chapter 4 for a further discussion of these issues.

**Errata:** None

**Comment Code:**Local Government Agencies Native American Organization[RG2-2](#)

**Response:** DOE and Kern County acknowledge the concern expressed concerning the preservation of these areas. However, P.L. 104-106 has directed DOE to sell all right, title and interest in NPR-1, so DOE lacks the authority to retain control over those areas or to assure that the areas continue to be under Federal protection. Since these areas will no longer be under Federal protection and involve significant prehistorical Archaeological resources, DOE would need to mitigate the impacts of the loss of protection, which DOE has recommended be accomplished through a Programmatic Agreement with the SHPO and additional data gathering and analysis. Therefore, DOE cannot commit to precluding these areas from further surveys or other impacts. However, it remains to be seen what measures Occidental may be willing to adopt. See Major Issue 1.6 Mitigation Implementation Process. Further, DOE will continue to work with Native American organizations to find other ways of addressing their concerns within the constraints of P.L. 104-106.

**Errata:** None

**Comment Code:**Local Government Agencies Native American Organization[RG2-3](#)

**Response:** DOE intends to work with the SHPO toward the objective of establishing a Elk Hills Archaeological District. See the revised Section 4.6 in Chapter 4.

**Errata:** None

**Comment Code:**Native American Organization[TCC-1](#)

**Response:** DOE and Kern County acknowledge the need to protect culturally sensitive sites, and the need to continue to work with Native Americans. See Major Issue 1.5, Native American Cultural Resources.

**Errata:** None.

**Comment Code:**Native American Organization[TCC-2](#)

**Response:** See the revised Section 4.6 in Chapter 4.

**Errata:** See revised Section 4.6.

**Comment Code:**Local Government Agencies Native American Organization[TCC-3](#)

**Response:** DOE and Kern County are aware of this study which has only recently become available (mid-September, 1997). As the study is very recent, the results are not included in the revised Section 4.6, Cultural Resources. However, the results of the study will be included in the Programmatic Agreement and will be considered in developing and implementing mitigation under the Programmatic Agreement.

**Errata:** None.

**Comment Code:**Native American Organization[TCC-4](#)

**Response:** DOE and Kern County acknowledge this concern and will continue to work with Native American

**Organizations.** See Major Issue 1.5, Native American Cultural Resources.

**Errata:** None.

**Comment Code:**Native American Organization[TCC-5](#)

**Response:** DOE and Kern County acknowledge this concern and will continue to work with Native American organizations with regard to their concerns. See Major Issue 1.5, Native American Cultural Resources.

**Errata:** None.

**Comment Code:**Native American Organization[TCC-6](#)

**Response:** DOE and Kern County acknowledge this concern. See Major Issue 1.5, Native American Cultural Resources.

**Errata:** None.

**Comment Code:**Native American Organization[TCC-7](#)

**Response:** See the revised Section 4.6 in Chapter 4 for a discussion of the ongoing studies.

**Errata:** None.

**Comment Code:**Native American Organization[TCC-8](#)

**Response:** A letter dated September 17, 1997 from DOE addressing these issues was sent to the affected individuals and organizations. A copy of this letter is in the appendix.

**Errata:** None.





## Private Industry

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**Comment Code:**Private Industry [AER-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry [AER-2](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry [AER-3](#)

**Response:** DOE and Kern County disagree that the transfer of the Biological Opinion would provide the same level of protection for threatened and endangered species as under Federal ownership, to the extent that as noted on page 2.5-2 of the DSEIS/PEIR, the Biological Opinion would only mitigate some of the loss of Federal ownership and the Biological Opinion would only cover the commercial operations in the near-term. Additional mitigation beyond the terms and conditions of the Biological Opinion would have to be applied if the loss of the Federal government's affirmative obligation to conserve and restore threatened and endangered species were to be completely mitigated. Occidental may not necessarily implement the type of conservation programs that Federal agencies are obligated to implement under Section 7(a)(1).

**Errata:** None.

**Comment Code:**Private Industry [AER-4](#)

**Response:** DOE and Kern County disagree with this comment. See Major Issue 1.4, Loss of Affirmative Federal Obligation. As the DSEIS/PEIR indicates, for several resources the degree of impacts would be greater under private ownership if, as expected, production levels are higher. These greater impacts could occur while still complying with applicable regulations, as the DSEIS/PEIR assumes.

**Errata:** None.

**Comment Code:**Private Industry [AER-5](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry [AER-6](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry [CHV-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-2](#)

**Response:** DOE disagrees with the comment because transfer of NPR-1 to private ownership will result in a loss of affirmative Federal obligations established by Section 7(a) of the Endangered Species Act. See Major Issues Section 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-3](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-4](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-5](#)

**Response:** DOE and Kern County agree that with respect to mitigation, CEQA is more inclusive than NEPA. DOE does not agree with the implication that CEQA would fully compensate for the loss of the affirmative Federal obligation to protect the environment. See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-6](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-7](#)

**Response:** The affirmative Federal obligation to protect endangered species and cultural resources on NPR-1 will not be the same once NPR-1 is in private ownership. See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-8](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-9](#)

**Response:** DOE and Kern County are uncertain as to which duplication of efforts this comment refers to. Therefore, there is insufficient information to respond. DOE notes, however, that any incremental state and local government oversight activities associated with the privatization of the site have the potential to be funded through the expected increase in state and local government revenues that occur as a result of privatizing NPR.

**Errata:** None.

**Comment Code:**Private Industry[CHV-10](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation. DOE and Kern County also disagree, for the reasons indicated in the DSEIS/PEIR, that the commercial development case would have impacts equivalent to the government development case.

**Errata:** None.

**Comment Code:** [CHV-11](#)

**Response:** DOE agrees that P.L. 104-106 should not be interpreted as directing DOE to disregard conservation practices. DOE disagrees that MED would be in conflict with the affirmative Federal obligation to protect the environment. They are not mutually exclusive.

**Errata:** None.

**Comment Code:**Private Industry[CHV-12](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-13](#)

**Response:** Comment noted. As the DSEIS/PEIR indicates, the development cases are intended to include all levels of development up to the upper bound of the development case. The lower bound represents DOE's estimate of a reasonably expected lower bound.

**Errata:** None.

**Comment Code:**Private Industry[CHV-14](#)

**Response:** DOE and Kern County disagree that there are no differences in environmental impacts between Alternatives. See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-15](#)

**Response:** DOE believes that the DSEIS/PEIR fairly reflects the proposed structure of the interests to be sold.

**Errata:** None.

**Comment Code:**Private Industry[CHV-16](#)

**Response:** DOE and Kern County disagree with the comment. NPR-1 has numerous state permits and significant expansion of NPR-1 production and exploration might very well require them to comply with CEQA before issuing any new permits.

**Errata:** None.

**Comment Code:**Private Industry[CHV-17](#)

**Response:** See response to Comments CHV-11 to CHV-14, (General Comment 3).

**Errata:** None.

**Comment Code:**Local Government Agencies Private Industry[CHV-18](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-19](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Local Government Agencies Private Industry[CHV-20](#)

**Response:** Mitigation levels under DOE ownership are clearly described in Section 4.5 of the DSEIS/PEIR. See the CDFG Comment Letter. CDFG has included many of the Biological Opinion's mitigation measures in a draft proposed MOU with the potential new owner.

**Errata:** None.

**Comment Code:**Private Industry[CHV-21](#)

**Response:** If the government continued to operate NPR-1 through its useful life as an oil field and it was still an important conservation area for threatened and endangered species, the lack of a profit motive on the part of the government would mean that a reasonably foreseeable outcome would be to create a permanent conservation area. There is a precedent for this type of action in the DOE's recommendation with respect to NPR-2, as discussed in the DSEIS/PEIR. Also in closing military bases, the Department of Defense has deferred to FWS on portions of the bases that were important for conservation rather than sell them off for commercial development.

**Errata:** None.

**Comment Code:**Private Industry[CHV-22](#)

**Response:** See response to Comment CHV-21.

**Errata:** None.

**Comment Code:**Private Industry[CHV-23](#)

**Response:** Comment noted. See revised Section 4.6, Cultural Resources provided in response to Comment AG1-1.

**Errata:** None.

**Comment Code:**Private Industry[CHV-24](#)

**Response:** Commented noted. DOE agrees with the commenter. See revised Section.

**Errata:** Replace paragraph 1 on page ES-10 with the following:

The third major impact from the future development of NPRs would be the possibility that state ambient air quality standards for PM<sub>10</sub> could be exceeded off-site. On-site, Federal ambient air quality standards for NO<sub>2</sub> and state ambient air quality standards for PM<sub>10</sub> and SO<sub>2</sub> might be exceeded. As stated in Section 4.3.1, for the two years analyzed, no violations of Federal or state ambient air quality standards were predicted in the areas surrounding NPR-1

with one exception: off-site particulate concentrations (PM<sub>10</sub>) under all cases are estimated to exceed the state ambient air quality standards for both years. 2001 NO<sub>x</sub> emission concentrations on-site are also expected to exceed Federal ambient air quality standards; while 2001 SO<sub>2</sub> concentrations and PM<sub>10</sub> concentrations for both years on-site are estimated to exceed state standards. The on-site exceedances are expected to occur where the public does not have access.

**Comment Code:** Private Industry [CHV-25](#)

**Response:** DOE agrees that oil spill rates and volumes could decline with future capital improvements. The main point of Section 4.10, however, is that even assuming an increase in future oil spills corresponding to increased production levels, oil spill risk levels are not considered to be significant. Accelerated capital improvements in the future, by either government or commercial entities, would not change this conclusion.

**Errata:** Insert the following after page ES-10, paragraph 2, sentence3:

Assuming an increase in future oil spills corresponding to increased production levels, oil spill risk levels are not considered significant.

**Comment Code:** Private Industry [CHV-26](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:** Private Industry [CHV-27](#)

**Response:** Comment noted. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:** Private Industry [CHV-28](#)

**Response:** Comment noted. No response necessary.

**Errata:** None.

**Comment Code:** Private Industry [CHV-29](#)

**Response:** Issues relevant to NEPA were included in the document even if they were not relevant to CEQA due to the dual purpose of the document.

**Errata:** None.

**Comment Code:** Private Industry [CHV-30](#)

**Response:** The requirements for CEQA are noted. However, DOE and Kern County disagree with this comment, since these differences are not germane to an understanding of the significant impacts of the Proposed Action and Alternatives.

**Errata:** None.

**Comment Code:** Private Industry [CHV-31](#)

**Response:** DOE and Kern County disagree that the term is unclear. The bullets under the term provide the necessary definition. The important procedural aspects of NEPA and CEQA are explained in the DSEIS/PEIR.

**Errata:** None.

**Comment Code:**Private Industry[CHV-32](#)

**Response:** See response to Comment CHV-10. In this context the reference to affirmative Federal obligation is Section 7(a)(1) of the ESA. Section 7(a)(1) is implemented by the Federal agency owning a property. FWS would not own NPR-1 if it were sold to one or more oil companies and therefore there would be a loss of affirmative Federal obligation unless appropriate mitigation measures are placed in the sales agreement, the Final EIR, and/or the 2081 permit. See Major Issue 1.4, Loss of Affirmative Federal Obligation and response to Comment CHV-10.

**Errata:** None.

**Comment Code:**Private Industry[CHV-33](#)

**Response:** DOE and Kern County agree that the timing and pace would not adversely impact cultural resources. See the revision to Table 2.1-1 and the revised Section 4.6, Cultural Resources.

**Errata:** Delete the following in the second sentence in bullet six of Table 2.1-1 on Page 2.1.2:

"and cultural resources."

**Comment Code:**Private Industry[CHV-34](#)

**Response:** DOE and Kern County do not believe that references to biodiversity should be removed because it is generally accepted that any habitat disturbance can threaten biodiversity. DOE and Kern County agree with the suggestion that a definition of biodiversity be added, and have done so in the glossary.

**Errata:** Insert the following definition of biodiversity to the glossary on page GLS-1:

Biodiversity can be defined as "the variety of organisms considered at all levels, from genetic variants belonging to the same species through species to arrays of genera, families, and still higher taxonomic levels." Biodiversity also includes "the variety of ecosystems, which comprise both the communities of organisms within particular habitats and the physical conditions under which they live." (E.O. Wilson, 1992, The Diversity of Life, W.W. Norton & Co., New York, NY.). According to DOE, " ecological organization, and therefore biodiversity, is a hierarchically arranged continuum, and reduction of diversity at any level will have effects at the other levels." (CEQ, 1994, Incorporating Biodiversity Considerations Into Environmental Impact Analysis Under the National Environmental Policy Act).

**Comment Code:**Private Industry[CHV-35](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-36](#)

**Response:** The Kern County General Plan designation for NPR-1 is "non-jurisdictional." The Kern County zoning ordinance designation is either Limited Agricultural or Exclusive Agricultural as the quoted material indicates. No revision is required.

**Errata:** None.

**Comment Code:**Local Government Agencies Private Industry[CHV-37](#)

**Response:** Comment noted. See revision to Section 2.2 in Chapter 4.

**Errata:** Change page 2.2-1, paragraph 4, sentence 4 to read:



These requirements include environmental compliance, financial responsibility, well activity approval, well closure approval, and proper conservation activities of the natural resource.

**Comment Code:**Private Industry[CHV-38](#)

**Response:** See responses to Comments to CHV-11, CHV-13, and CHV-14.

**Errata:** None.

**Comment Code:**Private Industry[CHV-39](#)

**Response:** They do represent the same unproved probable reserves. For further explanation of risk factors, see the NPR-1 Long Range Plan referenced in the document. No further response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-40](#)

**Response:** Comment noted. See the revised text for Section 2.2 contained within this document.

**Errata:** Change "CCOGP" in Footnote 5 on page 2.2-4 to read:

"CCCOGP"

**Comment Code:**Private Industry[CHV-41](#)

**Response:** Comment noted. No responses required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-42](#)

**Response:** See response to Comment CHV-15.

**Errata:** None.

**Comment Code:**Private Industry[CHV-43](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-44](#)

**Response:** DOE and Kern County disagree with implication of this comment that Section 10 permits would result in the same level of protection as a Section 7 consultation. Accordingly, sentence 3 has not been revised. However, Section 10 permits and Section 7 consultations do involve similar approaches to mitigation: take avoidance and habitat conservation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-45](#)

**Response:** The source of the information was the DOGGR cited in the Chapter References, which was the most current published information when the DSEIS/PEIR was published. The DSEIS/PEIR indicates the date of the information. No revision is required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-46](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-47](#)

**Response:** Comment noted. The document already indicates the small NPR-1 range of the Tipton Kangaroo rat. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-48](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-49](#)

**Response:** See response to Comment CHV-21.

**Errata:** None.

**Comment Code:**Private Industry[CHV-50](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-51](#)

**Response:** This comment appears to acknowledge the difference between a Section 7 consultation and a Section 10 permit. However, while technically different, the two do require similar approaches to mitigation, i.e. take avoidance and habitat conservation. See response to Comment DOI-6 and CHV-14.

**Errata:** See Revised Section 4.6.

**Comment Code:**Private Industry[CHV-52](#)

**Response:** See revised Section 4.6, Cultural Resources provided in response to Comment AG1-1.

**Errata:** See Revised Section 4.6.

**Comment Code:**Private Industry[CHV-53](#)

**Response:** See response to Comment CHV-24.

**Errata:** None.

**Comment Code:**Private Industry[CHV-54](#)

**Response:** See response to Comment [CHV-25](#)

**Errata:** None.

**Comment Code:**Private Industry [CHV-55](#)

**Response:** DOE and Kern County agree with the comment. See the revised text in Section 3.2.

**Errata:** Change page 3.2-1, paragraph 5, sentence 2 to read:

"and NPR-2 are" with "is"

**Comment Code:**Private Industry [CHV-56](#)

**Response:** Section 3.2.3 starting on page 3.2-2 of the DSEIS/PEIR identifies, in narrative form, the location and status of each site contaminated with hazardous substances, each hazardous waste transfer station, and each non-hazardous waste facility on NPR-1. Readers desiring more information on these sites are referred to the ATI Phase I Assessment of NPR-1, published in 1997. DOE believes this text and reference give readers all the information needed and that a summary table repeating this same information is unnecessary.

**Errata:** None.

**Comment Code:**Private Industry [CHV-57](#)

**Response:** The statement quoted by the comment is based on a review of Permits to Operate issued by the San Joaquin Valley Unified Air Pollution Control District.

**Errata:** Change page 3.3-1, paragraph 4, last sentence, to read:

"SO<sub>2</sub>" with "sulfur compound"

Insert the following footnote on page 3.3-1, paragraph 4, last sentence:

Based on a review of Permits to Operate issued by the San Joaquin Valley Unified Air Pollution Control District.

**Comment Code:**Private Industry [CHV-58](#)

**Response:** Comment noted. See revision to Section 3.3.1 in Chapter 4.

**Errata:** Delete the following from 3.3-1, paragraph 7, sentence 1:

"ATC's and"

**Comment Code:**Private Industry [CHV-59](#)

**Response:** Comment noted. As stated in the document, DOE chose to apply for two separate Title V permits for two areas: 1) 35 R Gas Plant Source and 2) Western Light Oil Source. The Title V applications cover all applicable equipment associated with these areas. No further clarification is necessary in the text under the scope of this document

**Errata:** None.

**Comment Code:**Private Industry [CHV-60](#)

**Response:** Comment noted. The document has been modified accordingly.

**Errata:** Change page 3.3-3, paragraph 3, sentence 6 to read:

In general, the larger IC engines did not meet the BARCT standard in 1995. However, with the implementation of appropriate control technology, they are expected to meet the SJVUAPCD limits required by 2001.

**Comment Code:**Private Industry[CHV-61](#)

**Response:** Comment noted. The document has been revised to reflect the latest, slightly lower, figure.

**Errata:** Insert the following bullet after page 3.3-4, partial paragraph 1, bullet 3:

- VOC - 546.3 tons per year

**Comment Code:**Private Industry[CHV-62](#)

**Response:** DOE has the option to retain ownership of the ERC certificates, but plans to transfer them to the purchaser, as indicated in the Environmental Permit Transfer Implementation Plan (Jan. 1997). See Section 3.3-4 for additional text regarding this revision.

**Errata:** Replace on page 3.3-4, paragraph 1, sentence 2 with the following:

DOE may retain ownership of the ERCs or may transfer them to the new owner. If DOE retains ownership, the new owner may be required to obtain ERCs for any permit modifications with emissions increases. The new owner may obtain the ERCs from DOE or elsewhere. DOE may also transfer the ERCs as a part of the sale. If DOE transfers the ERCs to the new owner, the new owner would be required to submit an application to transfer ERC certificates at the completion of the sale.

**Comment Code:**Private Industry[CHV-63](#)

**Response:** Comment noted. The text of Section 3.3.2 has been revised consistent with this comment and information provided in comments by the SJVUAPCD.

**Errata:** Change page 3.3-5, paragraph 2, the first three sentences to read:

Kern Count is in nonattainment for ozone and fine dust (PM<sub>10</sub>) (see Table 3.3-1). In addition, the City of Bakersfield is in nonattainment of the Federal standard for carbon monoxide (CO).

**Comment Code:**Private Industry[CHV-64](#)

**Response:** Comment noted. See revision to Section 3.3.

**Errata:** Delete on page 3.3-4, paragraph 2, last two sentences to read:

EPA revised the primary standards in July 1997 by adding a new annual PM<sub>2.5</sub> standard set at 15 microgram/m<sup>3</sup> and a new 24 hour PM<sub>2.5</sub> standard set at 65 microgram/m<sup>3</sup>. EPA will work with states to deploy the PM<sub>2.5</sub> monitoring networks to determine (1) which areas meet or do not meet the new air quality standards (2) what are the major sources of PM<sub>2.5</sub> in various regions, and (3) what actions are necessary to reduce emissions. States will have 3 years from the date of being designated nonattainment to develop pollution control plans and submit to EPA showing how they will meet the new standards. Areas will then have up to 10 years from their designation as non attainment to attain PM<sub>2.5</sub> standards with the possibility of two 1-year extensions.

**Comment Code:**Private Industry[CHV-65](#)

**Response:** Comment noted. The purpose of this Section of the document is to discuss the existing conditions at NPR-1

and consequently it is not the appropriate location for a discussion of the need for CEQA mitigation measures.

**Errata:** None.

**Comment Code:**Private Industry[CHV-66](#)

**Response:** Comment noted. The requested clarification has been added to the referenced text.

**Errata:** Change page 3.4-1, paragraph 3, to read:

Under the provisions of the Clean Water Act, standards are also set to protect the nation's waters from polluted storm water discharges. The only water body on NPR-1 that has been classified as a navigable waterway, and thus falls under the provisions of the Clean Water Act, is Buena Vista Creek. NPR-1 is presently exempt from the NPDES storm water discharge permit requirements because there have been no reportable quantity spills into storm water and because storm water is basically non-existent at Elk Hills. As a best management practice, however, site personnel have been monitoring Buena Vista Creek and other drainages during storm events since 1992 to determine if any contaminated runoff occurs and if it contains an oily sheen. Existing procedures call for NPR-1 to submit a Notice of Intent to receive coverage under a general NPDES permit for storm water runoff within 30 days to the California Regional Water Quality Control Board, if a reportable quantity spill occurs into Buena Vista Creek. Other environmentally sensitive areas that have been designated since the establishment of NPR-1 include the Fern Fan Element of the Kern Water Bank located adjacent to the northeast flank of Elk Hills, and the Buena Vista Aquatic Recreation Area located two miles southwest of NPR-1 (BPOI et al. 1995).

**Comment Code:**Private Industry[CHV-67](#)

**Response:** The comment about the Section 7 process and the concern about possible duplication of mitigation measures are noted. However, DOE and Kern County disagree that discussion of Section 9 of the ESA would add significantly to the discussion in the Biological Resources Section of the DSEIS/PEIR.

**Errata:** None.

**Comment Code:**Private Industry[CHV-68](#)

**Response:** DOE and Kern County disagree with the comment. While it is true that CEQA does require state lead agencies to conduct such an evaluation, this section of the DSEIS/PEIR discusses the requirements of the California Endangered Species Act, which also have such a requirement independent of CEQA.

**Errata:** None.

**Comment Code:**Private Industry[CHV-69](#)

**Response:** Page 3.5-2 has a detailed discussion of the California Endangered Species Act. Additional discussion of Section 2080 would not contribute meaningfully to the reader's understanding of the issues.

**Errata:** Insert on page 3.5-2, paragraph 1, at the end of sentence6:

in Section 2080

**Comment Code:**Private Industry[CHV-70](#)

**Response:** This court action has been overturned by the California Legislature. See Revision to Section 3.5 in Chapter 4.

**Errata:** Delete the last two sentences from bullet 1 on page 3.5-2.

**Comment Code:**Private Industry[CHV-71](#)

**Response:** For a more complete discussion of plant communities on NPR-1 the commenter is referred to the 1993 SEIS, which was referenced in the DSEIS/PEIR.

**Errata:** None.

**Comment Code:**Private Industry[CHV-72](#)

**Response:** DOE and Kern County agree with this statement. This comment will be included as indicated in the revisions of this document.

**Errata:** Change page 3.5-3, paragraph 4, sentence 6 to read:

Both the western whip tail and side-blotched lizard occur on NPR-1, as well as several species of snakes and lizards.

**Comment Code:**Private Industry[CHV-73](#)

**Response:** DOE and Kern County disagree with the comment. As the text indicates, the statement is based on research and the professional opinions of the researchers and FWS.

**Errata:** None.

**Comment Code:**Private Industry[CHV-74](#)

**Response:** The DSEIS/PEIR clearly defines "species of concern" as used in the document in the footnote on p.3.5-1. The titles in Tables 3.5-2 and 3.5-3 refer to "special status" which includes species of concern, Federally or state endangered, and Federally or state threatened as noted in the footnote on p. 3.5-7.

**Errata:** None.

**Comment Code:**Private Industry[CHV-75](#)

**Response:** Footnote 3 on Page 3.5-7 provides a definition of the term "special" for Table 3.5-2. However, DOE and Kern County agree that the use of the term needs to be clarified. See the addition to Section 3.5 footnote number one.

**Errata:** Insert the following on page 3.5-1 at the end of footnote 1:

Species recognized as "special" by the state of California are those species listed in the California Natural Diversity Data Base or other similar California data bases listing plant and animals considered to be threatened, rare or sensitive under one or more criteria.

**Comment Code:**Private Industry[CHV-76](#)

**Response:** DOE and Kern County agree with the comment. See the revision to Section 3.5.

**Errata:** Change page 3.5-8 paragraph 1, sentence 1 to read:

Kern Mallow (*Eremalche parryi* ssp. *kernensis*) (Federally endangered, state special) is a small annual plant with mostly small white flowers.

**Comment Code:**Private Industry[CHV-77](#)

**Response:** See response to Comment CHV-74.

**Errata:** None.

**Comment Code:**Private Industry[CHV-78](#)

**Response:** DOE and Kern County agree with the first part of the comment and have added a clarifying footnote to Table 3.5-3. With respect to the definition of "special," see the response to Comment CHV-75.

**Errata:** Insert the following footnote after page 3.5-11, Table 3.5-3, the "BIRDS" heading:

Raptors, while in some cases being designated as California species of special concern, are also protected under the California Fish and Game Code.

**Comment Code:**Private Industry[CHV-79](#)

**Response:** The referenced paragraph discusses past operations that have affected the existing conditions at NPR-1 rather than future operations. DOE and Kern County have revised the title and the first sentence of the paragraph accordingly.

**Errata:** Replace the heading on page 3.5-15, paragraph 6 and delete the words "Potential" and "continued" from the first sentence to read:

Past Effects of NPR-1 Operations on San Joaquin Kit Fox. Effects of oil field development and production under the Reference Case on NPR-1 have been previously discussed in detail. (Martinson 1980; Kato and O'Farrell 1986; O'Farrell et al. 1986; Berry et al. 1987; Harris et al. 1987; Kobetich 1987; Scrivner et al. 1987a; Zollick et al. 1987; DOE 1991, DOE SEIS 1993; Medlin 1995b)

**Comment Code:**Private Industry[CHV-80](#)

**Response:** The referenced paragraph discusses past operations that have affected the existing conditions at NPR-1 rather than future operations. DOE and Kern County have revised the title and the first sentence of the paragraph accordingly.

**Errata:** Replace the heading on page 3.5-17, paragraph 4 and delete the words "potential" and "continuing" from the first sentence to read:

Past Effects of NPR-1 Activities on Blunt-nosed Leopard Lizards. Loss of habitat due to construction and operational activities was identified as the most significant impact on the blunt-nosed leopard lizard of MER development at NPR-1 (Kato and O'Farrell 1986).

**Comment Code:**Private Industry[CHV-81](#)

**Response:** The referenced paragraph discusses past operations that have affected the existing conditions at NPR-1 rather than future operations. DOE and Kern County have revised the title and the first sentence of the paragraph accordingly.

**Errata:** Replace the heading on page 3.5-20, paragraph 1 and delete the words "Potential" and "continuing" from the first sentence to read:

"Past Effects of NPR-1 Activities on Giant Kangaroo Rats": Impacts of NPR-1 operations on the giant kangaroo rat include loss of habitat, burial of burrows, being struck by vehicles, getting caught in an oil spill, exposure to contaminants, and fire (O'Farrell and Kato).

**Comment Code:**Private Industry[CHV-82](#)

**Response:** The referenced paragraph discusses past operations that have affected the existing conditions at NPR-1 rather than future operations. DOE and Kern County have revised the title and the first sentence of the paragraph accordingly.



**Errata:** Replace the heading on page 3.5-22, paragraph 1, replace the heading and delete the word "Potential" from the second sentence to read:

Past Effects of NPR-1 Activities on San Joaquin Antelope Squirrel: Loss of habitat, displacement by California ground squirrels (usually found near human activity), mortality or injury from construction activities, vehicle impacts, and getting caught in oil spills or trapped in oil field activities could adversely affect San Joaquin antelope squirrels at NPR-1. Effects of NPR-1 activities on this species have not been carefully studied, but based on results of site wide surveys conducted in 1984 and 1989, the decline in observations of this species do not appear to be related to petroleum production activities.

**Comment Code:**Private Industry [CHV-83](#)

**Response:** Footnote 1 on p. 3.5-1 defines "species of concern" as used in the DSEIS/PEIR and so the reference is correct. As the sentence refers to the definition, it is not necessary to repeat it in its entirety.

**Errata:** None.

**Comment Code:**Private Industry [CHV-84](#)

**Response:** Comment noted. The referenced text has been modified accordingly.

**Errata:** Change page 4.2-1, paragraph 4 to read:

Some programs required by DOE to be implemented under the No Action Alternative (e.g., the Rad Con program and environmental training program) may or may not continue on the same level under the Proposed or Alternative to Proposed Action, depending on the environmental practice of the proposed purchaser. The waste minimization/pollution prevention program currently implemented by DOE in accordance with DOE Order 0440.1, or some comparable program, is expected to be implemented by the new owner in accordance with the California Hazardous Waste Source Reduction and Management Review Act (California Health and Safety Code Section 25244 et seq.).

**Comment Code:**Private Industry [CHV-85](#)

**Response:** The incorrect reference to Table 3.2-1 has been deleted. Also, as discussed in response to Comment CHV-56, DOE believes all of the information of interest to the commenter is presented in narrative form on pages 3.2-2 and 3.2-3. Additional detail, if desired, can be obtained from ATI 1997 referenced in the DSEIS/PEIR. Therefore, DOE believes it is unnecessary to revise the document to include the summary table requested by the commenter.

**Errata:** Delete the last sentence in the first paragraph on page 4.2-4.

**Comment Code:**Private Industry [CHV-86](#)

**Response:** See response to Comment CHV-84.

**Errata:** None.

**Comment Code:**Private Industry [CHV-87](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation and response to Comment CHV-84.

**Errata:** None.

**Comment Code:**Private Industry [CHV-88](#)

**Response:** Comment noted. The fact that the DOE orders would not apply does not change the general conclusions.



**Errata:** None.

**Comment Code:**Private Industry[CHV-89](#)

**Response:** See response to Comment CHV-24. The modeling results indicate a possible need for additional mitigation in the issuance of future new source permits because the modeling shows the potential for emissions exceeding state and national standards. Exclusion of statutory mandated mitigation from the document would leave the discussion incomplete.

**Errata:** None.

**Comment Code:**Private Industry[CHV-90](#)

**Response:** Comment noted. In estimating emissions, it was assumed that the internal combustion engines did not meet BARCT requirements in 1995 and that with the implementation of appropriate requirements, they may be able to meet the SJVUAPCD limits required by 2001.

**Errata:** None.

**Comment Code:**Private Industry[CHV-91](#)

**Response:** These engines were included in the air modeling because they were included in the 1995 actual emission inventory. In addition, these engines were included for later years because the analysis focused on maximum potential/allowable emissions as would be stated in the permits or required by regulations. Because DOE does hold permits for these engines, the possibility of operating them in the future exists; however, if in the future these engines are not operated, the emissions estimated under this analysis are very conservative. As noted elsewhere in the text, by using the maximum potential/allowable emissions for future year analysis, the emission estimates are conservative because the actual emissions may in fact be lower than allowed.

**Errata:** None.

**Comment Code:**Private Industry[CHV-92](#)

**Response:** See response to CHV-89.

**Errata:** None.

**Comment Code:**Private Industry[CHV-93](#)

**Response:** See response to CHV-89.

**Errata:** None.

**Comment Code:**Private Industry[CHV-94](#)

**Response:** See response to CHV-89.

**Errata:** None.

**Comment Code:**Private Industry[CHV-95](#)

**Response:** The only water body on NPR-1 that has been classified as a navigable waterway under the Clean Water Act is Buena Vista Creek. Sandy Creek and Broad Creek also qualify as navigable waterways, but only on NPR-2. The referenced text has been modified to make this clarification.

**Errata:** Change page 4.4-3, paragraph 6, the last two sentences to read:

The only water body on NPR-1 that has been classified as a navigable waterway under the Clean Water Act is Buena Vista Creek. Although NPR-1 has been exempted from the Act's storm water permit requirements, facility personnel (as a best management practice) monitor the quality of storm water entering Buena Vista Creek during heavy precipitation events. No pollution incidents have been observed since this monitoring was initiated in 1992.

**Comment Code:**Private Industry[CHV-96](#)

**Response:** Comment noted. The referenced text has been revised accordingly.

**Errata:** Change page 4.4-3, paragraph 7, sentence 3 to read:

Smaller volumes of produced water (7,000 to 8,000 barrels per day) are disposed in four active surface sumps, in accordance with waste discharge requirements issued by the Regional Water Quality Control Board.

**Comment Code:**Private Industry[CHV-97](#)

**Response:** Comment noted. The referenced text has been modified accordingly.

**Errata:** Change page 4.4-8, sentence 3 to read:

Most produced water on NPR-1 is injected into the Tulare Zone, portions of which have been designated as an exempt aquifer for the purpose of Class II underground injection (meaning that Class II injection can occur without having to protect the Tulare Zone as an underground source of drinking water).

**Comment Code:**Private Industry[CHV-98](#)

**Response:** Comment noted. The referenced text has been modified accordingly.

**Errata:** Change page 4.4-13, paragraph 3, sentence 4 to read:

Wells must be plugged and abandoned in a manner that prevents movement of fluids into or between underground sources of drinking water.

**Comment Code:**Private Industry[CHV-99](#)

**Response:** Comment noted. The referenced text has been modified accordingly.

**Errata:** Change page 4.4-15, paragraph 1, sentence 3 to read:

However, if an injection well leaks or fails mechanically, the impact on drinking water should not be significant because the Tulare Zone is an exempt aquifer for Class II underground injection (meaning that it is not protected as an underground source of drinking water). In addition, available data indicate that local ground water is typically nonpotable due to high total dissolved solids levels.

**Comment Code:**Private Industry[CHV-100](#)

**Response:** Comment noted. The referenced text has been modified accordingly.

**Errata:** Change page 4.4-15 paragraph 5 to read:

There are five active sumps used to dispose of produced water at NPR-1. Four sumps, all located in Section 10G, are in regular use and receive a total of 7,000 to 8,000 barrels of produced water per day. The other active sump, located in Section 26Z, is used only in emergency or abnormal situations, when produced waters cannot be disposed of through normal means (e.g., during injection well system shutdowns). Overall, continued use of these sumps should not cause significant environmental impacts. As it has in the past, the amount of produced water disposed of in sumps is

expected to decline, as oil and water production levels continue to trend downward and more of the produced water is recycled for water flooding purposes. There are no new sumps planned for the site. In addition, the active sumps are permitted by the Regional Water Quality Control Board and designed to avoid impacts to drinking water supplies. For example, the one active sump located in an alluvial area where produced water could percolate and potentially contaminate a drinking water aquifer (the emergency sump in Section 26Z) is equipped with a liner.

Although there are several other sumps on site in Sections 9G and 18G, they are all inactive. Closure and remediation activities of old sumps are summarized in Section 3.2.3.

**Comment Code:**Private Industry[CHV-101](#)

**Response:** Comment noted. The referenced text has been modified accordingly.

**Errata:** Change page 4.4-17 bullet 4 to read:

Obtaining permits and complying with waste discharge requirements issued by the Regional Water Quality Control Board for the disposal of produced water in surface sumps; and

**Comment Code:**Private Industry[CHV-102](#)

**Response:** Due to the affirmative Federal obligation to protect the environment over and above statutory minimums, it cannot be said with certainty that the new owner will adopt similar plans that provide the same level of protection and the cited paragraph reflects this. However, DOE and Kern County agree that the difference in the plans in this instance would not be significant.

**Errata:** None.

**Comment Code:**Private Industry[CHV-103](#)

**Response:** As stated in response to Comment CHV-25, DOE believes that the risk of oil spills is not significant, even assuming an increase in future oil spills corresponding to increased production levels. Nevertheless, DOE acknowledges that an increased availability and commitment of capital under the commercial development case could counteract an increased spill risk caused by increased production levels. This concept has been reflected in revised text.

**Errata:** Change page 4.4-20, paragraph 3, sentence 1 and 2 to read:

The higher production levels expected in the upper bound of the Commercial Development Case, compared to the Reference Case and the upper bound of the Government Development Case, would result in a need for larger volumes of freshwater, a larger number of wells, and larger volumes of produced water and fluid injection. These increased volumes also would imply an increased risk of spills, although an increased availability and commitment of capital toward system maintenance and improvements by commercial entities could act to offset this increased risk.

**Comment Code:**Private Industry[CHV-104](#)

**Response:** Comment noted. The referenced text has been revised accordingly.

**Errata:** Change page 4.4-21 paragraph 3, sentence 1 to read:

Finally, ... that migrate off site, outside the portion of the Tulare Zone designated as an exempt aquifer for the purpose of Class II underground injection.

**Comment Code:**Private Industry[CHV-105](#)

**Response:** See response to CHV-21.

**Errata:** None.

**Comment Code:**Private Industry[CHV-106](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-107](#)

**Response:** The comment implies that reconsultation under the 1995 Biological Opinion could occur. As the DSEIS/PEIR discusses, the new owner would have to obtain a Section 10 permit.

**Errata:** None.

**Comment Code:**Private Industry[CHV-108](#)

**Response:** See response to CHV-69.

**Errata:** None.

**Comment Code:**Private Industry[CHV-109](#)

**Response:** See Figure 2.5-1 and the VFHCP. DOE and Kern County agree with the proposed change. See page 4.5-11 in the DSEIS/PEIR and there vision of Section 4.5 in Chapter 4.

**Errata:** Change page 4.5-5, paragraph 2, sentence 3 to read:

"However, even that impact could be mitigated to less than significant levels within the meaning of CEQA by the adoption and implementation of a regional HCP or other mitigation measures properly structured to account for the loss of the Federal protection of NPR-1."

**Comment Code:**Private Industry[CHV-110](#)

**Response:** See response to Comment CHV-34.

**Errata:** None.

**Comment Code:**Private Industry [CHV-111](#)

**Response:** See response to Comment CHV-25.

**Errata:** None.

**Comment Code:**Private Industry[CHV-112](#)

**Response:** See response to CHV-34.

**Errata:** None.

**Comment Code:**Private Industry[CHV-113](#)

**Response:** DOE and Kern County disagree with general comment 2, see Major Issue 1.4, Loss of Affirmative Federal Obligation. The comment on the possibility that the new owner would not accept the transfer of the terms and conditions of the Biological Opinion is noted. In fact, the proposed purchaser has accepted the transfer of the Biological Opinion. Therefore, no response is required. DOE and Kern County disagree with the comment that the mitigation measures are confusing. The tables and the narrative explain their origin and organization.

**Errata:** None.

**Comment Code:**Private Industry[CHV-114](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation, and response to Comment CHV-113.

**Errata:** None.

**Comment Code:**Private Industry[CHV-115](#)

**Response:** DOE and Kern County do not agree with the comment. As the items are from the 1995 Biological Opinion, they do not represent items addressed in the 1993 SEIS.

**Errata:** None.

**Comment Code:**Private Industry[CHV-116](#)

**Response:** See response to Comment CHV-115.

**Errata:** None.

**Comment Code:**Private Industry[CHV-117](#)

**Response:** See Major response 1.4, Loss of Affirmative Federal Obligation. Regarding the ultimate disposition of NPR-1, see Major Issue 1.8, Future Uses of the NPR-1 Property.

**Errata:** None.

**Comment Code:**Private Industry[CHV-118](#)

**Response:** As indicated in Comment DOI-7, revegetation is not a mitigation measure that FWS would include in future consultation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-119](#)

**Response:** See response to Comment CHV-118.

**Errata:** None.

**Comment Code:**Private Industry[CHV-120](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[CHV-121](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation, and response CHV-113.

**Errata:** None.

**Comment Code:**Private Industry[CHV-122](#)

**Response:** See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:**Private Industry[CHV-123](#)

**Response:** See Major Issue 1.6, Mitigation Implementation Process, and Major Issue 1.8, Future Uses of the NPR-1 Property.

**Errata:** None.

**Comment Code:**Private Industry[CHV-124](#)

**Response:** Comment noted. See Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Private Industry[CHV-125](#)

**Response:** DOE and Kern County disagree with the comment. The table reflects the discussion in the section.

**Errata:** None.

**Comment Code:**Private Industry[CHV-126](#)

**Response:** See the response to Comment AG1-1 and revised Section 4.6 in Chapter 4.

**Errata:** None.

**Comment Code:**Private Industry[CHV-127](#)

**Response:** See the response to Comment AG1-1 and revised Section 4.6 in Chapter 4.

**Errata:** None.

**Comment Code:**Private Industry[CHV-128](#)

**Response:** See the response to Comment AG2-1 and revised Section 4.6 in Chapter 4.

**Errata:** None.

**Comment Code:**Private Industry[CHV-129](#)

**Response:** See the response to Comment AG2-1 and revised Section 4.6 in Chapter 4.

**Errata:** None.

**Comment Code:**Private Industry[CHV-130](#)

**Response:** See the response to Comment AG2-1 and revised Section 4.6 in Chapter 4.

**Errata:** None.

**Comment Code:**Private Industry[CHV-131](#)

**Response:** See the response to Comment AG2-1 and revised Section 4.6 in Chapter 4.

**Errata:** None.

**Comment Code:**Private Industry[CHV-132](#)

**Response:** The above comment concerning the California Teachers Retirement Fund is mentioned in Section 4.9.3.3. (page 4.9-6) of the DSEIS/PEIR.

**Errata:** None.

**Comment Code:**Private Industry[CHV-133](#)

**Response:** See response to Comment CHV-25.

**Errata:** None.

**Comment Code:**Private Industry[CHV-134](#)

**Response:** See response to Comment CHV-25.

**Errata:** None.

**Comment Code:**Private Industry[CHV-135](#)

**Response:** Table 4.10-4 is a matrix showing qualitatively the relative risk of various hazard scenarios. The matrix illustrates that certain combinations of accident likelihood and severity, the two major components of risk, are significant with respect to public safety. Such significant combinations are indicated as shaded areas in the matrix.

**Errata:** See Chapter 4 for a table with darker shading.

**Comment Code:**Private Industry[CHV-136](#)

**Response:** DOE estimated impacts under both government and commercial operation scenarios based on an analysis of historical oil spill and accident data for NPR-1. DOE used these data to determine spill or accident rates associated with particular activities (e.g., production of a barrel of oil, remedial actions, etc.). DOE then applied these rates to production levels under the various alternatives for purposes of comparison. DOE believes this is a valid approach for estimating impacts and that the results do not understate impacts related to the Government Operation.

Using this methodology, the No Action Alternative would result in less impact than the Proposed Alternative since the risk of spills increases with increased production levels projected under commercial development. DOE did not base this finding on any existing study.

Finally, the commenter refers to studies indicating that the performance of operations at NPR-1 is below industry's performance, without providing any references. Thus, DOE cannot respond with specificity to this matter.

**Errata:** None.

**Comment Code:**Private Industry[CHV-137](#)

**Response:** See response to Comment CHV-25.

**Errata:** None.

**Comment Code:**Private Industry[CHV-138](#)

**Response:** See response to Comment CHV-25.

**Errata:** None.

**Comment Code:**Private Industry[CHV-139](#)

**Response:** Comment noted. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:**Private Industry[CHV-140](#)

**Response:** The referenced section is a requirement of NEPA, and is a standard section in all EIS's.

**Comment Code:**Private Industry[KOR-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[KOR-2](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[KOR-3](#)

**Response:** Comment noted. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:**Private Industry[KOR-4](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[PGE-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[PGE-2](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Private Industry[PGE-3](#)

**Response:** DOE believes that the existing electrical system of substations and transmission lines is adequate to accommodate expanded production from NPR-1 and the replacement of internal combustion powered compressors. See modified discussion of future electric power use in Section 4.11.3. However, it should be noted that the document is a program level EIR and if additional electrical facilities are required in the future, appropriate CEQA review will occur at that time.

**Errata:** Insert the following after page 4.11-2, paragraph 2, the last sentence:

As the existing transmission lines and associated facilities were developed to support higher levels of electricity use on



NPR-1 before the installation of the on-site cogeneration facility, these facilities are adequate to handle any future needs for the delivery of electric power to the site in excess of the capacity of the cogeneration plant without the need for any significant new construction that might impact the surrounding environment.

**Comment Code:**Private Industry [PGE-4](#)

**Response:** See the response to Comment PGE-3.

**Errata:** None.

**Comment Code:**Private Industry [PEN-1](#)

**Response:** Several commenters have noted concerns about the socioeconomic impacts related to the sale of NPR-1. However, DOE and Kern County disagree that the Section 4.9 is flawed. See Major Issue 1.7, Socioeconomics. It further should be noted that these issues are beyond the scope of CEQA.

**Errata:** None.

**Comment Code:**Private Industry [PEN-2](#)

**Response:** Comment noted. See Major Issue Section 1.7,Socioeconomics.

**Errata:** None.

**Comment Code:**Private Industry [PEN-3](#)

**Response:** The commenter addresses issues related to the outcome of the sale of Elk Hills and its impact on the West Coast Petroleum market, which are shared by others. DOE and Kern County disagree that the DSEIS/PEIR misrepresents the impacts of the Proposed Action and Alternatives. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:**Private Industry [PEN-4](#)

**Response:** Concerns about regional or state-wide impacts as a result of the sale of NPR-1 are noted. However, DOE and Kern County disagree that significant impacts have been omitted from the document. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:**Private Industry [PEN-5](#)

**Response:** The 200 to 300 jobs that were estimated to be eliminated in the DSEIS/PEIR consist mainly of non-field personnel that are associated with the Federal government's current operations at the site. The respondent's assertion that job losses could be less, depending on the nature of the winning bidder, would not alter the conclusion of the DSEIS/PEIR that the surrounding physical environment will not be negatively impacted as a result of any socioeconomic effects that result from the proposed sale.

**Errata:** None.

**Comment Code:**Local Government Agencies Private Industry [PEN-6](#)

**Response:** Concerns about potential impacts on upstream oil and gas operations as a result of selling NPR-1 to a private entity--whether the buyer is an integrated California oil company or has existing production operations in the area--are noted. However, DOE and Kern County disagree that the DSEIS/PEIR does not adequately address socioeconomic impacts. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:**Private Industry[PEN-7](#)

**Response:** DOE notes that this assumption was used in the 1993 EIS because NPR's demand for goods and services can not be entirely met by regional supplies. According to the 1995 Annual Report, less than five percent of total NPR expenditures accounted for the salaries and support of the Government employees at Elk Hills. The majority of NPR expenditures were made for engineering support services, which were provided by a firm headquartered outside of the region.

**Errata:** None.

**Comment Code:**Local Government Agencies Private Industry[PEN-8](#)

**Response:** Concerns about the actual operating expenditures for NPR-1 are noted. However, DOE and Kern County disagree that the report overstates these numbers. According to NPR's Annual Report of Operations, during fiscal year 1995, total costs at NPR-1 were \$169,608,231, which is consistent with the estimate used in the DSEIS/PEIR.

**Errata:** None.

**Comment Code:**Local Government Agencies Private Industry[PEN-9](#)

**Response:** This assumption is consistent with that used in the 1993 SEIS. This assumption was made because the manufacturing and retail sale of this equipment is generally found outside of the County. Consequently, the expenditures made by NPR for this type of equipment do not generally benefit the local economy.

**Errata:** None.

**Comment Code:**Private Industry[PEN-10](#)

**Response:** As discussed in the document, NPR-1 is currently in full compliance with all SJUVAPCD permits and expects to remain in full compliance until the time of the sale, at which time recompliance responsibility would transfer to the new owner. Any failure to file a plan, while violating the regulation, would not result in significant air quality impacts. NEPA and CEQA do not require the analyses of impacts unless they are reasonably foreseeable.

**Errata:** None.

**Comment Code:**Private Industry[PEN-11](#)

**Response:** As the new National Ambient Air Quality Standards for PM<sub>2.5</sub> and ozone had not been adopted before the DSEIS/PEIR was prepared, it did not address the consequences. Now that the new NAAQS have been adopted, more details are available on the NAAQS. Note, however, that EPA has not indicated how the new PM<sub>2.5</sub> NAAQS will be addressed. See the revised text for Section 3.3 in Chapter 4.

**Errata:** See errata for response to Comment CHV-64.

**Comment Code:**Private Industry[PEN-12](#)

**Response:** DOE and Kern County believe that the assumptions used to model air emissions for the DSEIS/PEIR fairly represent the facility and emissions sources as they are currently configured at Elk Hills. As the set-aside is likely to occur in the least developed areas of NPR-1, it is unlikely that the establishment of the conservation areas would affect the facility air emissions in a material fashion.

**Errata:** None.

**Comment Code:**Private Industry [PEN-13](#)

**Response:** As the exact equipment and configuration of facilities under the proposed action could vary, the DSEIS/PEIR analyzed the maximum emissions that might result from the proposed action.

**Errata:** None.

**Comment Code:**Private Industry [PEN-14](#)

**Response:** As the DSEIS/PEIR states in Section 4.5, P.L. 104-106 authorizes the transfer of the terms and conditions of the Biological Opinion See also the letter from the Department of the Interior in the Appendix. Therefore this should not be a concern for any new operator.

**Errata:** None.

**Comment Code:**Private Industry [PEN-15](#)

**Response:** As Section 4.5 of the DSEIS/PEIR indicates, obtaining these permits would be a key concern of any new owner. However, CDFG appears prepared to work with the new owner, as indicated by their proposed memorandum of understanding attached to their comment letter.

**Errata:** None.

**Comment Code:**Private Industry [PEN-16](#)

**Response:** The objective of the DSEIS/PEIR is to analyze the impacts of the Proposed Action and Alternatives, not determine how to maximize the value of NPR-1 to the government, which is part of the sales process. See Major Issue 1.7, Socioeconomics.

**Errata:** None.





Associations

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**Comment Code:**Association [CNP-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Association [CNP-2](#)

**Response:** See Major Issue 1.6.1, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:** Association[CC1-1](#)

**Response:** Comment noted. See revision to Section 2.2 in Chapter 4.

**Errata:** Change page 2.2-2, paragraph 4, sentence 5 to read;

In carrying out its authorities, DOGGR is advised by the Conservation Committee of California Oil and Gas Producers (CCCOGP), a unique, industry supported, tax exempt organization that was created in 1929 and that pursuant to state statute has administered a voluntary hydrocarbon resource conservation program for DOGGR since 1995.

**Comment Code:** Association[CC1-2](#)

**Response:** Comment noted. See revision to section 3.11.1.

**Errata:** Change page 3.11-1, paragraph 3 to read:

The Conservation Committee of California Oil and Gas Producers (CCCOGP) is an industry-supported, tax exempt organization that was created in 1929 and that pursuant to state statute has administrated a voluntary hydrocarbon resource conservation program for the DOGGR since 1955. CCCOGP represents the oil and gas industry before the DOGGR on matters related to oil and gas conservation. Comprised of both majors and independents, membership accounts for over 80-percent of California production, excluding Elk Hills. It is funded by millage on production of large producers and by a fixed membership fee of \$60 per year for very small producers.

**Comment Code:** Association[CC1-3](#)

**Response:** Comment noted. See revision to Section 3.11.1.

**Errata:** Change page 3.11-1, paragraph 4, sentence 1 to read:

The Committee's conservation efforts have been compared to the Texas Railroad Commission's production proration program with the significant exception that it is operated by the industry rather than the state.

**Comment Code:** Association[CC1-4](#)

**Response:** Comment noted. See revision to Section 3.11.1.

**Errata:** Change page 3.11-1, paragraph 4, sentence 4 to read:

The Committee collects, prints, and distributes information on oil and gas operations in the state.

**Comment Code:** Association [EDF-1](#)

**Response:** Several commenters have discussed their concerns that mitigation measures might not be sufficient to protect endangered species, like that of the San Joaquin kit fox. However, DOE and Kern County believe that the proposed mitigation measures meet the requirements of CEQA to identify measures that would mitigate impacts to less than significant. The California DFG comments (comments from a state agency with responsibilities under both CEQA and the California endangered species act) are relevant with respect to this point. See Comment CFG-18. In addition, see Major Issues Section 1.6, Mitigation Implementation Process. DOE and Kern County further believe that the DSEIS/PEIR adequately delineates the impacts to biological resources in Section 4.5 and analyzes the level of significance.

**Errata:** None.

**Comment Code:** Association [EDF-2](#)

**Response:** The extinction of any endangered species is of great concern. However, the disclosure delineated in this comment would not change the overall impact analysis or mitigation discussion of the DSEIS/PEIR. It is uncertain which "reduced protection" the comment is referring to. DOE and Kern County do not agree that the small level of reduced protection after the implementation of the mitigation measures that would be imposed during the state CEQA and permitting process and any future Federal permitting process virtually assures a continued decline. As the DSEIS/PEIR discusses, the primary factors currently affecting the kit fox population at NPR-1 are predation and rainfall. DOE has a substantial history of operations at NPR-1 and has conducted substantial studies of the effects of those operations on the threatened and endangered species located there. Nothing in DOE's experience demonstrates that even with accelerated development under a commercial owner, the impacts to those species cannot be mitigated. Therefore, DOE lacks any basis on which to conclude that with, mitigation, the Proposed Action will increase the likelihood of the extinction of all four species. DOE and Kern County do acknowledge however, that given the time frame covered by the document, future enforcement of these mitigation measures remains uncertain. See Major Issue 1.4, Loss of the Affirmative Federal Obligation.

**Errata:** None.

**Comment Code:** Association [EDF-3](#)

**Response:** Concerns about the responsibilities of private parties to protect endangered and threatened species are noted. However, DOE and Kern County disagree with this comment. The DSEIS/PEIR clearly defines the impacts to biological resources, including the loss of affirmative federal obligations to protect, conserve and help recover threatened and endangered species and their habitats. It also provides mitigation measures for the loss of affirmative federal obligations (BRMs on p. 4.5-31 and 4.5-32), and includes measures for compensation of habitat loss (BRM-17.2) as well as conservation measures (BRM-19.1 and BRM-19.2). Section 10 is not the only mechanism available for limiting or mitigating impacts on biological resources discussed in the document. See Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:** Association [EDF-4](#)

**Response:** DOE and Kern County believe that the comment understates the responsibilities of a private owner, particularly with respect to the requirements for the development of a habitat conservation plan. Notwithstanding those obligations, they do agree that, without more, the transition from the Section 7 process to the Section 10 process would

involve significant impacts to threatened and endangered species. However, the CEQ A mitigation obligation should assure appropriate mitigation is adopted. See response to EDF-3, as well as the discussion under Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Association [EDF-5](#)

**Response:** DOE and Kern County disagree that monitoring has to occur before mitigation would apply. Many of the mitigation measures discussed in the document, some of which are typically included as mitigating measures in Section 10 permits, are sufficiently broad to permit their implementation without detailed project plans or extensive additional monitoring. See response to EDF-3, as well as the discussion under Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Association [SC1-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Association [SC1-2](#)

**Response:** DOE and Kern County are aware that this study is out in draft form for public comment but have not reviewed that document in preparing this DSEIS/PEIR; however, the importance of habitat to threatened and endangered species is well recognized. As the document indicates, extensive biological resource references were used and cited in preparation DSEIS/PEIR.

**Errata:** None.

**Comment Code:**Association [SC1-3](#)

**Response:** Comment noted. See revision to Section 3.7 in Chapter 3.

**Errata:** Insert the following after page 3.7-2, paragraph 6, sentence 1:

Other major open areas include the 6,000 acre Coles Levee Ecosystem Preserve.

**Comment Code:**Association [SC1-4](#)

**Response:** Comment noted. See Major Issues Section 1.1, DOE's Preferred Alternative.

**Errata:** None.

**Comment Code:**Association [SC1-5](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Association [SC1-6](#)

**Response:** FWS and CDFG do not consider this species as a candidate for listing and therefore, it would be beyond the scope of this document to analyze the eligibility of this species for protected status.

**Errata:** None.

**Comment Code:**Association [SC1-7](#)

**Response:** See the new table for inclusion in Section 4.11 in Chapter 4.

**Errata:** Insert the following table after page 4.11-1, paragraph 3:

**NPR-1 Summary of Production Projections With Energy Equivalents of Total Energy Consumption For All Development Cases**

	Production Projections Total1997- End of Field Life (MMBOE)	Energy Equivalent <sup>a</sup> of Total1996 Energy Consumption <sup>b</sup> (days)
Reference Case Total Hydrocarbon Production	856	31.13
Government Case - Lower Bound Total Hydrocarbon Production	582	21.16
Government Case - Upper Bound Total Hydrocarbon Production	1,089	39.60
Commercial Case - Lower Bound Total Hydrocarbon Production	918	33.38
Commercial Case - Upper Bound Total Hydrocarbon Production	1,433	44.55

<sup>a</sup> = Energy equivalent calculated using the conversion equation bbl = 5.800mmbtu and with the statistic1996 Total US Energy Consumption =58.214 quadrillion btu.

((Case amount MMBOE \* 5800000 btu per bbl) / 58.214 quad btu per year) \* 365days

<sup>b</sup> = The 1996 Total US Energy Consumption estimate was referenced from the EIA/DOE web site for petroleum and natural gas consumption in the United States.

**Comment Code:**Association [SC1-8](#)

**Response:** The diluent issue is discussed in Section 4.11.5 of the DSEIS/PEIR. The discussion in Major Issue 1.7, Socioeconomics, is also relevant to this comment.

**Errata:** None.

**Comment Code:** Association[WIR-1](#)

**Response:** Comment noted. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:** Association [WIR-2](#)

**Response:** Comment noted. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:** Association [WIR-3](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:** Association [WIR-4](#)

**Response:** DOE and Kern County are unaware of any studies, analyses or other information to support this Comment.

**Errata:** None.

**Comment Code:** Association [WIR-5](#)

**Response:** Comment noted. See Major Issue Section 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:** Association [WIR-6](#)

**Response:** DOE notes that currently, purchasers of the small refiner set-aside under NPR-1 sales are prohibited from trading the crude. DOE and Kern county assume this comment refers to possible future trades if small refineries have access to NPR-1 crude after the sale. See Major Issue Section 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:** Association [WIR-7](#)

**Response:** Comment noted. See Major Issue Section 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:** Association [WIR-8](#)

**Response:** DOE acknowledges the concern. See Major Issue 1.7, Socioeconomics.

**Errata:** None.

**Comment Code:** Association [WIR-9](#)

**Response:** See Major Issue 1.7, Socioeconomics. No information was provided in Comment that would invalidate the conclusions of the DSEIS/PEIR with respect to the environmental impacts of the Proposed Action.

**Errata:** None.

**Comment Code:** Association [WIL-1](#)



**Response:** Several commenters have discussed reconsultation with the USFWS. See Major Issue 1.3, Reconsultation Under the Biological Opinion.

**Errata:** None.

**Comment Code:**Association [WIL-2](#)

**Response:** DOE and Kern County acknowledge this concern about mitigation efforts. See Major Issue Section 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Association [SWS-1](#)

**Response:** DOE and Kern County acknowledges this concern. However, see Major Issue 1.3, Reconsultation Under the Biological Opinion. See also Major Issue 1.4, Loss of the Affirmative Federal Obligation, and 1.8, Future Uses of the NPR-1 Property.

**Errata:** None.

**Comment Code:**Association [SWS-2](#)

**Response:** DOE and Kern County acknowledge this concern. See Issue1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Association [SWS-3](#)

**Response:** DOE and Kern County acknowledge this concern. See Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.





## Concerned Citizens

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### **Comment Code:**Concerned Citizen[S\\_F-1](#)

**Response:** The concern about mitigation details are noted. However,DOE and Kern County disagree with the comment. See Major Issue 1.4, Loss of Affirmative Federal Obligation.

**Errata:** None.

### **Comment Code:**Concerned Citizen[S\\_F-2](#)

**Response:** The DSEIS/PEIR states on Page 4.5-4 that the existing permit would only cover the short-term operations of a new owner. It also states that "[a]s these are the same protections that DOE applies in its operations, this would mitigate the impacts to biological resources from commercial ownership to less than significant, at least for the short term." With regard to future land uses after the field is depleted, see Major Issue1.8, Future Uses of the NPR-1 Property.

**Errata:** None.

### **Comment Code:**Concerned Citizen[S\\_F-3](#)

**Response:** DOE acknowledges the concern, but must comply with P.L.104-106; see Major Issue Section 1.1, DOE's Preferred Alternative. Regarding the analysis of transferring NPR-1 to BLM, also see Major Issue 1.1, DOE's Preferred Alternative.

**Errata:** None.

### **Comment Code:**Concerned Citizen[S\\_F-4](#)

**Response:** DOE and Kern County recognize the concern that there is the long-term potential loss of valuable habitat, see Major Issue 1.8, Future Uses of the NPR-1 Property.

**Errata:** None.

### **Comment Code:**Concerned Citizen[S\\_F-5](#)

**Response:** The DSEIS/PEIR does consider selling the mineral right sand transferring the remaining property rights to BLM. As the discussion of this alternative indicates, the key consideration is Federal ownership, not which agency manages the land. Analysis of USFWS managing the land as a separate alternative would not add to an understanding of the issues. DOE acknowledges the concern about the land being sold and then re-acquired for habitat conservation, see Major Issue 1.1, DOE's Preferred Alternative, and 1.6, Mitigation Implementation Process.

**Errata:** None.

### **Comment Code:**Concerned Citizen[S\\_F-6](#)

**Response:** As the DSEIS/PEIR discusses, P.L. 104-106 establishes a process for assuring that the government receives full market value for NPR-1.

**Errata:** None.

**Comment Code:**Concerned Citizen[S\\_F-7](#)

**Response:** NPR-1 was offered for sale in 14 separate segments. The largest segment (approximately 74% of DOE's interest in NPR-1) would give the purchaser approximately 51% of the entire NPR-1 field and would constitute the operatorship for the entire field. The remainder (approximately 26% of DOE's interests in NPR-1) was offered as thirteen 2% segments. The statutory requirements of P.L. 104-106 precluded the conducting of the sale over an extended time period.

**Errata:** None.

**Comment Code:**Concerned Citizen[S\\_F-8](#)

**Response:** DOE refers the commenter to Major Issue 1.6, Mitigation Implementation Process, which discusses how mitigation measures, including conservation easements, are addressed in the sales process.

**Errata:** None.

**Comment Code:**Concerned Citizen[S\\_F-9](#)

**Response:** This concern is acknowledged but is beyond the scope of NEPA.

**Errata:** None.

**Comment Code:**Concerned Citizen[S\\_F-10](#)

**Response:** NEPA requires a comparison of alternatives based on environmental considerations, not economic considerations. See Major Issue 1.1, DOE's Preferred Alternative.

**Errata:** None.

**Comment Code:**Concerned Citizen[S\\_F-11](#)

**Response:** See the revised section 4.6 in Chapter 4 for the latest information on DOE's plans to mitigate impacts to cultural resources.

**Errata:** None.

**Comment Code:**Concerned Citizen[PAK-1](#)

**Response:** DOE and Kern County disagree that the document was not well researched. The reader is referred to the EPA comment letter rating the document. DOE and Kern County also disagree that the document requires greater detail. With respect to the effectiveness of mitigation measures, see Major Issue 1.6, Mitigation Implementation Process.

**Errata:** None.

**Comment Code:**Concerned Citizen[PAK-2](#)

**Response:** See Major Issue 1.3, Reconsultation Under the Biological Opinion and the DOI letter in the Appendix. DOE and Kern County disagree that the Proposed Action and the Alternatives go far beyond the levels addressed by the 1995 Biological Opinion document's quantitative analysis of future production and acre age disturbance. Finally, the document includes numerous mitigation measures that go significantly beyond the 1995 Biological Opinion.

**Errata:** None.

**Comment Code:**Concerned Citizen[PAK-3](#)

**Response:** DOE and Kern County agree to some extent that the mitigation measures are imprecise. This is due to the need for broad mitigation measures that could cover the broad range of future actions at Elk Hills. DOE and Kern County disagree that the document does not address the consequences to listed plants of the proposed action. See also the discussion under Major Issue 1.6, Mitigation Implementation Process and 1.3, Need for Reconsultation. Also, it should again be noted that this is a Program level EIR and to the extent that a new owner might propose a development different from that described in the document, additional CEQA analysis including possible additional mitigation measures would be required.

**Errata:** None.

**Comment Code:** Concerned Citizen [D\\_M-1](#)

**Response:** Section 3416 of P.L. 104-106 indicates a Congressional intent that actions with respect to the other naval petroleum reserves other than retention and operation by DOE would be undertaken by legislative action. Therefore, DOE does not intend to proceed until Congressional direction is forthcoming.

**Errata:** None.





## Public Hearing Comments

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**Comment Code:**Public Hearing Commenter[SC2-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Public Hearing Commenter[SC2-2](#)

**Response:** See response to Comment SC1-2, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Public Hearing Commenter[SC2-3](#)

**Response:** See response to Comment SC1-3, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Local Government Agencies Public Hearing Commenter[SC2-4](#)

**Response:** See response to Comment SC1-4 and SC1-5, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Local Government Agencies Public Hearing Commenter[SC2-5](#)

**Response:** See response to Comment SC1-6, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Public Hearing Commenter[SC2-6](#)

**Response:** See response to Comment SC1-7, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Public Hearing Commenter[SC2-7](#)

**Response:** See response to Comment SC1-8, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Public Hearing Commenter[SC2-8](#)

**Response:** See response to Comment SC1-7, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Local Government Agencies Public Hearing Commenter[SC2-9](#)

**Response:** See response to Comment SC1-7, the written version of this public hearing comment.

**Errata:** None.

**Comment Code:**Local Government Agencies Public Hearing Commenter[WSP-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Local Government Agencies Public Hearing Commenter[AG1-1](#)

**Response:** DOE and Kern County agree that this section of the document should be expanded to reflect events since the DSEIS/PEIR was published. See Chapter 4 for the revised Section 4.6.

**Errata:** See revised Section 4.6.

**Comment Code:**Public Hearing Commenter[KRP-1](#)

**Response:** DOE and Kern County share the commenter's concern about the preservation of cultural sites and the restoration of grave sites. See Major Issue 1.5, Native American Cultural Resources.

**Errata:** None.

**Comment Code:**Public Hearing Commenter[CC2-1](#)

**Response:** Comment noted. No response required.

**Errata:** None.

**Comment Code:**Public Hearing Commenter[AG2-1](#)

**Response:** The comment correctly summarizes from the DSEIS/PEIR. A new private owner would need to apply for a Section 10 permit if NPR-1 is developed at production levels above those contained in the 1995 Biological Opinion. For the meaning of current level of operation, please refer to the 1995 Biological Opinion. Also see the comments from the U.S. Fish and Wildlife Service (USFWS) in this document. Regarding the additional 411 acres, the new owner would have to reconsult with USFWS if projects at NPR would permanently disturb more than the 828 acres allowed under the 1995 Biological Opinion (417 having already been disturbed by DOE operations).

**Errata:** None.

**Comment Code:**Local Government Agencies Public Hearing Commenter[AG2-2](#)

**Response:** The proposed purchaser will be required to comply with all the terms and conditions of the 1995 Biological Opinion. See also the letter from the Department of Interior in the Appendix to this document. In essence, as the DSEIS/PEIR indicates, compliance with the 1995 Biological Opinion requires the implementation of all current protection species programs ongoing at NPR-1. These are summarized in the document. There are two key documents that fully explain the obligations of the new owner, the 1995 Biological Opinion and the "Conservation Plan for Protected Species on NPR-1" referenced in the 1995 Biological Opinion and the DSEIS/PEIR. The 1995 Biological Opinion is included in the DSEIS/PEIR; the Conservation Plan is available in the public reading room.

**Errata:** None.

**Comment Code:**Public Hearing Commenter[AG2-3](#)

**Response:** The new owner will have to apply for a Section 2081 permit of the California Fish and Game Code for the

incidental taking of threatened and endangered species on NPR-1. The transfer of ownership does not assure that the new owner would obtain a Section 2081 permit. However, the fact that CDFG has proposed a Memorandum of Understanding between the Elk Hills unit operator and CDFG should facilitate the process for obtaining a 2081 permit that would allow the new owner to proceed with expanded development of NPR-1. For further information, see the letter from CDFG.

**Errata:** None.

**Comment Code:** Public Hearing Commenter [AG2-4](#)

**Response:** See response AG2-3.

**Errata:** None.

**Comment Code:** Local Government Agencies Public Hearing Commenter [AG2-5](#)

**Response:** See response to Comment AG2-3.

**Errata:** None.

**Comment Code:** Public Hearing Commenter [CCB-1](#)

**Response:** Several commenters have expressed concern about the desecration of grave sites. See Major Issue 1.5, Native American Cultural Resources.

**Errata:** None.

**Comment Code:** Public Hearing Commenter [CCB-2](#)

**Response:** DOE and Kern County have included measures to mitigate possible damage to culturally sensitive sites. See Major Issue 1.5, Native American Cultural Resources.

**Errata:** None.





# CHAPTER FOUR

## Changes to the Draft Supplemental Environmental Impact Statement/Program Environmental Impact Report

Editorial note: The paragraphs referred to in this Chapter are full paragraphs counting from the top of a given page. Thus, paragraph 2, for example, refers to the second complete paragraph on the page.







## EXECUTIVE SUMMARY

**Replace on ES-1, heading "Executive Summary" to read:**

Summary

**Change page numbers ES-1 to ES-20 to S-1 to S-20.**

**Insert the following after page ES-2, paragraph 3, sentence 1:**

DOE has selected the Proposed Action as its Preferred Alternative.

**Change page ES-2, paragraph 4, sentence 3 to read:**

Estimated total production for the Commercial Development Case ranges from approximately 849 to 1,225 million barrels of oil equivalent from 1997 to 2034.

**Change page ES-5, paragraph 1, sentence 5 to read:**

Estimated total production for the Reference Case is approximately 730 million barrels of oil equivalent (including oil, gas, and other non-gas liquids) from 1997 through 2034.

**Change page ES-5, paragraph 2, sentence 4 to read:**

Estimated total production for the Government Development Case ranges from approximately 689 to 950 million barrel of oil equivalents from 1997 through 2034

**Change page ES-7, paragraph 3, sentence 2 to read:**

Currently there are approximately 200 active wells, 225 abandoned or idle wells, 34 tank settings and six oil/water sumps on DOE lands within NPR-2.

**Change page ES-7, paragraph 3, sentence 3 to read:**

Expected activities in NPR-2 include drilling and completing approximately 75 new production wells.

**Change page ES-7, paragraph 3, sentence 6 to read:**

In addition, petroleum support facilities would be kept in good repair to ensure operation of tank settings and oil/water/gas hydration/lease automatic custody transfer (LACT) units.

**Change page ES-8, item 2, sentence 1 to read:**

NPR-2 Sale of Remaining Mineral Rights Subject to Current Leases and Transfer of Remaining Interest to BLM for Management of the Surface Interest in Accordance with Federal Law would have DOE sell the remaining mineral rights in NPR-2, subject to existing leases, and then transfer DOE's current permitting and management responsibilities for the existing leases to BLM.

**Replace paragraph 1 on page ES-10 with the following:**

The third major impact from the future development of NPRs would be the possibility that state ambient air quality standards for PM<sub>10</sub> could be exceeded off-site and on-site Federal ambient air quality standards for NO<sub>2</sub> and state

ambient air quality standards for PM<sub>10</sub> and SO<sub>2</sub> might be exceeded. As stated in Section 4.3.1, for the two years analyzed, no violations of Federal or state ambient air quality standards were predicted in the areas surrounding NPR-1 with one exception: off-site particulate concentrations (PM<sub>10</sub>) under all cases are estimated to exceed the state ambient air quality standards for both years. 2001 NO<sub>x</sub> emission concentrations on-site are also expected to exceed Federal ambient air quality standards; while 2001 SO<sub>2</sub> concentrations and PM<sub>10</sub> concentrations for both years on-site are estimated to exceed state standards. The on-site exceedances are expected to occur where the public does not have access.

**Insert the following after page ES-10, paragraph 2, sentence 3:**

Assuming an increase in future oil spills corresponding to increased production levels, oil spill risk levels are not considered significant.

**Insert the following after page ES-10, paragraph 3, sentence 4:**

The risk of contamination is also mitigated somewhat by the fact that local water quality is typically nonpotable due to high total dissolved solids levels.





## **2. ALTERNATIVES INCLUDING THE PROPOSED ACTION**

### **2.1. OVERVIEW**

**Insert the following after page 2.1-1, paragraph 1, sentence 3:**

DOE has selected the Proposed Action as its Preferred Alternative.

**Delete the following in the second sentence in bullet six of Table 2.1-1 on Page 2.1-2:**

"and cultural resources"

### **2.2. NPR-1 PROPOSED ACTION AND ALTERNATIVES**

**Change page 2.2-1, paragraph 4, sentence 4 to read:**

These requirements include environmental compliance, financial responsibility, well activity approval, well closure approval, and proper conservation activities of the natural resource.

**Insert the following on page 2.2-2, paragraph 1, sentence 3:**

...(for commercial Class II injection wells).

**Insert the following after page 2.2-2, paragraph 4, sentence 4:**

The DOGGR's discretionary Permit to Conduct Well Operations could include conditions used for environmental mitigation required in the NEPA/CEQA process.

**Change page 2.2-2, paragraph 4, sentence 5 to read:**

In carrying out its authorities, DOGGR is advised by the Conservation Committee of California Oil and Gas Producers (CCCOGP), a unique, industry supported, tax exempt organization that was created in 1929 and that pursuant to state statute has administered a voluntary hydrocarbon resource conservation program for DOGGR since 1995.

#### **2.2.1. The Reference Case**

**Change "CCCOGP" in Footnote 5 on page 2.2-4 to read:**

"CCCOGP"

#### **2.2.3 NPR-1 Proposed Action**

**Insert the following after page 2.2-11, paragraph 1, sentence 2:**

DOE has selected the Proposed Action as its Preferred Alternative.

### **2.3. NPR-2 RECOMMENDED ACTION AND ALTERNATIVES**

#### **2.3.2. NPR-2 Recommended Action**

##### ***2.3.2.1. NPR-2 Recommended Action: Transfer of NPR-2 to BLM***

**Change page 2.3-3, paragraph 1, sentence 6 to read:**

The Department of Interior's Minerals Management Service would collect royalties from NPR-2 production, as it does for all leases managed by BLM.

**2.3.3. NPR-2 Alternatives to the Recommended Action**

***2.3.3.2. NPR-2 Alternative Considered But Not Analyzed in Detail: Sale of Remaining Mineral Rights Subject to Current Leases and Transfer of Remaining Interest to BLM for Management of the Surface Interest in Accordance with Federal Law***

**Change page 2.3-5, paragraph 5, sentence 5 to read:**

Like the purchasers of the smaller non-operating interests in Sales Scenario1 of the proposed NPR-1 action, the buyers of the remaining mineral rights would not control how future development of reserves would occur unless the buyer were the same as the existing lessee of a given tract of land.

**2.4. CUMULATIVE PROJECTS**

**2.4.1. Basis for Cumulative Projects**

**Change page 2.4-1, paragraph 3, sentence 4 to read:**

For comparative purposes, that EIS estimates that 150 to 260 new wells would be drilled annually on Federal lands compared to the highest projected well drilling activities under this DSEIS/PEIR of 89 new wells to be drilled on NPR-1 and NPR-2.

**2.4.2. Cumulative Oil and Gas Projects**

**Change page 2.4-2, paragraph 4, sentence 6 to read:**

Although Elk Hills is the fourth largest oil field in California, from 1994 to 1995 it ranked third among the top ten oil fields with the largest production decreases.

**Change page 2.4-3, paragraph 1, sentence 6 to read:**

Buena Vista ranks tenth among the California giant oil fields, with ultimate recovery of 100 million barrels or more.

**Change page 2.4-6, partial paragraph 1, sentence 1 to read:**

Producers at Midway-Sunset include BLM lessees and more than 50 private companies and independents.

**Insert the following after page 2.4-3, paragraph 3, sentence 1:**

Producers at McKittrick include BLM lessees and more than 13 private companies and independents.

**Change page 2.4-6, paragraph 7, sentence 4 to read:**

Producers at Cymric include BLM lessees and more than 25 private companies and independents.





### 3 DESCRIPTION OF EXISTING ENVIRONMENT

#### 3.1. GEOLOGY AND SOILS

##### 3.1.6. Soils

**Change page 3.1-4 and page 3.1-5 paragraph 4 and paragraph 1 respectively to read:**

The soils of Elk Hills are composed of highly stratified deposits that vary greatly in their proportions of gravel, sand, silt, and clay. Some strata are gravelly sands, some are clayey, and some have a loamy texture with a mixture of sand, silt, and clay that is poorly sorted. A few areas have a soil layer that is chemically cemented hard pan (Regal 1997).

Many areas of Elk Hills contain loamy surface soils that are underlain by mottled clayey former lake deposits. Some of the subsurface layers containing gypsum crystals and other salts (e.g., sodium, chlorine, and boron) that commonly accumulate in arid regions. Salt concentrations usually are highest in fine-grained soils where the low permeability associated with these materials, low annual precipitation, and insufficient perennial surface water allow only minimal leaching to occur. In these high-saline areas, plant growth is reduced dramatically and shifts toward more salt-tolerant species.

#### 3.2. HAZARDOUS MATERIALS AND WASTE MANAGEMENT

##### 3.2.1. Applicable Regulations

**Change page 3.2-1, paragraph 5, sentence 2 to read:**

"and NPR-2 are" with "is"

##### 3.2.3. Updated Status of Waste Facilities

**Insert the following footnote on page 3.2-3 at the end of the first partial sentence:**

Any hazardous waste or wastes containing PCBs at these transfer areas would be disposed of at a properly permitted facility before transfer of NPR-1 to a new owner.

**Change page 3.2-3, Table 3.2-1, fourth row to read:**

Facility: Section 20 trash dump

Waste Managed or Contamination (if applicable): general trash

Activity and Status: Cleaned up and sold by ARCO to Vintage in 1997

References: Dave Bone (BPOI)

**Change page 3.2-3, Table 3.2-1, seventh row under the "Waste Managed or Contamination (if applicable)" heading to read:**

"copper, chrome, and oily soil."

**Delete the last row in Table 3.2-1 on page 3.2-3.**

#### 3.3. AIR RESOURCES

### **3.3.1. Applicable Regulations**

**Change page 3.3-1, paragraph 4, last sentence, to read:**

"SO<sub>2</sub>" with "sulfur compound"

**Insert the following footnote on page 3.3-1, paragraph 4, last sentence:**

Based on a review of Permits to Operate issued by the San Joaquin Valley Unified Air Pollution Control District.

**Delete the following from page 3.3-1, paragraph 7, sentence 1:**

"ATCs and."

**Change page 3.3-3, paragraph 3, sentence 6 to read:**

In general, the larger IC engines did not meet the BARCT standard in 1995. However, with the implementation of appropriate control technology, they are expected to meet the SJVUAPCD limits required by 2001.

**Insert the following bullet after page 3.3-4, partial paragraph 1, bullet 3:**

- VOC - 546.3 tons per year.

**Replace on page 3.3-4, paragraph 1, sentence 2 with the following:**

DOE may retain ownership of the ERCs or may transfer them to the new owner. If DOE retains ownership, the new owner may be required to obtain ERCs for any permit modifications with emissions increases. The new owner may obtain the ERCs from DOE or elsewhere. DOE may also transfer the ERCs as a part of the sale. If DOE transfers the ERCs to the new owner, the new owner would be required to submit an application to transfer ERC certificates at the completion of the sale.

**Change on page 3.3-4, paragraph 2, last two sentences to read:**

EPA revised the primary standards in July 1997 by adding a new annual PM<sub>2.5</sub> standard set at 15 microgram/m<sup>3</sup> and a new 24 hour PM<sub>2.5</sub> standard set at 65 microgram/m<sup>3</sup>. EPA will work with states to deploy the PM<sub>2.5</sub> monitoring networks to determine (1) which areas meet or do not meet the new air quality standards (2) what are the major sources of PM<sub>2.5</sub> in various regions, and (3) what action is needed to cleanup the air. states will have 3 years from the date of being designated nonattainment to develop pollution control plans and submit to EPA showing how they will meet the new standards. Areas will then have up to 10 years from their designation as non attainment to attain PM<sub>2.5</sub> standards with the possibility of two 1-year extensions.

### **3.3.2. Baseline Meteorology and Air Quality**

**Change page 3.3-5, paragraph 2, the first three sentences to read:**

Kern County is in nonattainment for ozone and fine dust (PM<sub>10</sub>) (see Table 3.3-1). In addition, the City of Bakersfield is in nonattainment of the Federal standard for carbon monoxide (CO).

**Revise Table 3.3-1 , Kern County Attainment Status, to reflect the following changes:**

- The attainment status for the state standard for Ozone is revised to read "Severe Nonattainment"
- The attainment status for the state standard for Carbon Monoxide is revised to read "Attainment".

**Delete on page 3.3-5, paragraph 2, sentence 3.**

**Delete on page 3.3-6, paragraph 1, sentence 7 the following:**

"including the Bakersfield nonattainment area."

### **3.4. WATER RESOURCES**

#### **3.4.1. Applicable Regulations**

**Change page 3.4-1, paragraph 3 to read:**

Under the provisions of the Clean Water Act, standards are also set to protect the nation's waters from polluted storm water discharges. The only water body on NPR-1 that has been classified as a navigable waterway, and thus falls under the provisions of the Clean Water Act, is Buena Vista Creek. NPR-1 is presently exempt from the NPDES storm water discharge permit requirements because there have been no reportable quantity spills into storm water and because storm water is basically non-existent at Elk Hills. As a best management practice, however, site personnel have been monitoring Buena Vista Creek and other drainages during storm events since 1992 to determine if any contaminated runoff occurs and if it contains an oily sheen. Existing procedures call for NPR-1 to submit a Notice of Intent to receive coverage under a general NPDES permit for storm water runoff within 30 days to the California Regional Water Quality Control Board, if a reportable quantity spill occurs into Buena Vista Creek. Other environmentally sensitive areas that have been designated since the establishment of NPR-1 include the Fern Fan Element of the Kern Water Bank located adjacent to the northeast flank of Elk Hills, and the Buena Vista Aquatic Recreation Area located two miles southwest of NPR-1 (BPOI et al. 1995).

**Insert the following paragraph after page 3.4-1, paragraph 3:**

The seasonal drainages present on NPR-1 are generally under the jurisdiction of the California Department of Fish and Game. Under the Fish and Game Code (section 1600 et seq.), the Department must be notified and streambed alteration agreements must be obtained for work in the bed banks or channels of lakes, ponds, rivers, or streams.

### **3.5. BIOLOGICAL RESOURCES**

**Insert the following after page 3.5-1 at the end of footnote 1:**

Species recognized as "special" by the state of California are those species listed in the California Natural Diversity Data Base or other similar California data bases listing plant and animals considered to be threatened, rare or sensitive under one or more criteria.

#### **3.5.1. Applicable Regulations**

##### ***3.5.1.2. California Endangered Species Act***

**Insert on page 3.5-2, paragraph 1, at the end of sentence 6:**

in Section 2080.

**Delete on page 3.5-2, the last two sentences from bullet 1.**

#### **3.5.3. Animal Communities on NPR-1**

**Change page 3.5-3, paragraph 4, sentence 6 to read:**

Both the western whip tail and side-blotched lizard occur on NPR-1, as well as several species of snakes and lizards.

#### **3.5.4. Threatened and Endangered Species on NPR-1**

#### **3.5.4.2. Listed Plant Species and Plant Species of Concern on NPR-1**

##### **Listed Plant Species for which Suitable Habitat Exists on NPR-1**

###### **Kern Mallow.**

**Change page 3.5-8, paragraph 1, sentence 1 to read:**

Kern Mallow (*Eremalche parryi* ssp. *kernensis*) (Federally endangered, state special) is a small annual plant with mostly small white flowers.

#### **3.5.4.3. Listed Animal Species and Animal Species of Concern on NPR-1**

##### **San Joaquin Kit Fox**

###### **Status of the San Joaquin Kit Fox on NPR-1.**

**Insert the following footnote after page 3.5-11, Table 3.5-3, the "BIRDS" heading:**

Raptors, while in some cases being designated as California species of special concern, are also protected under the California Fish and Game Code.

###### **Potential Effects of NPR-1 Operations on San Joaquin Kit Fox.**

**Replace the heading on page 3.5-15, paragraph 6 and delete the words "Potential" and "continued" to read:**

Past Effects of NPR-1 Operations on San Joaquin Kit Fox. Effects of oil field development and production under the Reference Case on NPR-1 have been previously discussed in detail (Martinson 1980; Kato and O'Farrell 1986; O'Farrell et al. 1986; Berry et al. 1987; Harris et al. 1987; Kobetich 1987; Scrivner et al. 1987a; Zoellick et al. 1987; DOE 1991; DOE SEIS 1993; Medlin 1995b).

##### **Blunt-nosed Leopard Lizard**

###### **Potential Effects of NPR-1 Activities on Blunt-nosed Leopard Lizards.**

**Replace the heading on page 3.5-17, paragraph 4 and delete the words "potential" and "continuing" to read:**

Past Effects of NPR-1 Activities on Blunt-nosed Leopard Lizards. Loss of habitat due to construction and operational activities was identified as the most significant impact on the blunt-nosed leopard lizard of MER development at NPR-1 (Kato and O'Farrell 1986).

##### **Giant Kangaroo Rat**

###### **Potential Effects of NPR-1 Activities on Giant Kangaroo Rat.**

**Replace the heading on page 3.5-20, paragraph 1 and delete the words "Potential" and "continuing" to read:**

Past Effects of NPR-1 Activities on Giant Kangaroo Rats. Impacts of NPR-1 operations on the giant kangaroo rat include loss of habitat, burial of burrows, being struck by vehicles, getting caught in an oil spill, exposure to contaminants, and fire (O'Farrell and Kato 1987).

##### **San Joaquin Antelope Squirrel**

###### **Potential Effects of NPR-1 Activities on San Joaquin Antelope Squirrel.**

**Replace the heading on page 3.5-22, paragraph 1 and delete the word "Potential" to read:**



Past Effects of NPR-1 Activities on San Joaquin Antelope Squirrel. Loss of habitat, displacement by California ground squirrels (usually found near human activity), mortality or injury from construction activities, vehicle impacts, and getting caught in oil spills or trapped in oil field facilities could adversely affect San Joaquin antelope squirrels at NPR-1. Effects of NPR-1 activities on this species have not been carefully studied, but based on results of site wide surveys conducted in 1984 and 1989, the decline in observations of this species do not appear to be related to petroleum production activities.

3.6 CULTURAL RESOURCES

3.6.3 Elk Hills Resources

3.6.3.2 Prehistoric Sites

**Change page 3.6-10, by deleting the last two sentences in paragraph 3 and adding the following paragraph:**

Twelve prehistoric archaeological sites at NPR-1 have been evaluated for NRHP eligibility and four have been determined by DOE to be potentially eligible for NRHP listing according to 36 CFR 60.4 (Criterion D): CA-KER-3082 and CA-KER-3085/H. SHPO concurred in this determination in August 1997. Results of a review of all sites and prehistoric resources recorded as of late 1996, with field testing of some in 1997, form the basis for recognition of an Elk Hills archaeological District that is eligible for the NRHP under criterion 36 CFR60.4(d), based on its potential to yield information important in prehistory.

3.6.3.4. Native American Concerns

**Insert the following as the first sentence on page 3.6-11, paragraph 3:**

In 1993, DOE completed a programmatic notification and summary in accordance with the NAGPRA agreement.

3.7. LAND USE

3.7.2.Naval Petroleum Reserve No.1

**Insert the following paragraph and table after page 3.7-2, paragraph 2:**

The site contains various geodetic control monuments of the National Geodetic Survey.

The following list of monuments in the general region of the longitude and latitude of NPR-1 was prepared from the Survey's web site a <http://www.ngs.noaa.gov>. Federal Agencies are required to contact the Survey prior to moving any such monuments.

**Geodetic Control Monuments within the Vicinity of NPR-1**

PID	Designation	Lat	Lon
FU1982	V 548	351239	1192412
FU1400	Y 326 UOCO	351259	1193354
FU1401	R 951	351300	1193353
FU2311	LAKE RM 3	351301	1192237
FU2312	LAKE RM 4	351301	1192237
FU2310	LAKE	351302	1192237

FU1980	U 548	351315	1192320
FU1402	1275 USGS	351321	1193414
FU1403	CDS	351324	1193417
FU2309	195 DWR	351326	1192232
FU1977	EH 11 DWR	351328	1192643
FU2303	S 548	351345	1192035
FU2308	T 548	351346	1192232
FU3243	J 1292	351352	1193447
FU2302	R 548	351358	1192048
FU2305	L 1098	351358	1192126
FU2297	192 DWR	351402	1192016
FU1976	EH 10 DWR	351403	1192642
FU1406	Z 326	351425	1193517
FU1975	EH 9 DWR	351442	1192725
FU1407	A 951	351444	1193538
FU1589	EH 8 DWR	351516	1192747
FU1588	EH 7 DWR	351605	1192758
FU3676	PUFF	351606	1192427
FU3679	PIPE MARK NEAR STA PUFF 1958	351606	1192427
FU3675	ELK 2	351611	1192519
FU3677	ELK	351612	1192519
FU3678	BFI 1334	351612	1192519
FU1587	EH 6 DWR	351635	1192804
FU1503	184 DWR	351711	1192009
FU3682	WEST ELK	351717	1193038
FU1586	EH 5 DWR	351722	1192751
FU1506	K 1098 K CO	351734	1192047
FU1514	183 A DWR	351747	1192101
FU1518	182 A DWR	351801	1192128
FU1517	183 DWR	351801	1192130
FU1525	182 DWR	351825	1192217

FU1571	181 DWR	351839	1192305
FU1576	180 A DWR	351906	1192338
FU1584	EH 3 DWR	351911	1192750
FU1568	Z 980	351929	1192335
FU1581	180 DWR	351934	1192443
FU1565	H 981	351950	1192442
FU1583	EH 2 DWR	351953	1192744
FU1558	179 DWR	351958	1192550
FU1582	EH 1 DWR	352020	1192755
FU1551	178 DWR	352022	1192649

**3.7.3. Adjacent Land Uses**

**3.7.3.1 Agriculture and Open Space**

**Insert the following after page 3.7-2, paragraph 6, sentence 1:**

Other major open areas include the 6,000 acre Coles Levee Ecosystem Preserve.

**3.7.3 Adjacent Land Uses**

**3.7.3.3 Water Banking**

**Change page 3.7-3, paragraph 1, sentences 2 and 3 to read:**

The Kern Water Bank Plan is part of the Kern Water Bank Authority and will be managed for water recharge and endangered species. The Bank is approximately 20,000 acres, which is located near the eastern border of NPR-1 and is the subject of an HCP application.

**3.11. ENERGY CONSERVATION**

**3.11.1 Applicable Regulations**

**Change page 3.11-1, paragraph 3 to read:**

The Conservation Committee of California Oil and Gas Producers (CCCOGP) is an industry-supported, tax exempt organization that was created in 1929 and that pursuant to state statute has administrated a voluntary hydrocarbon resource conservation program for the DOGGR since 1955. CCCOGP represents the oil and gas industry before the DOGGR on matters related to oil and gas conservation. Comprised of both majors and independents, membership accounts for over 80-percent of California production, excluding Elk Hills. It is funded by millage on production of large producers and by a fixed membership fee of \$60 per year for very small producers.

**Change page 3.11-1, paragraph 4, sentence 1 to read:**

The Committee's conservation efforts have been compared to the Texas Railroad Commission's production proration program with the significant exception that it is operated by the industry rather than the state.

**Change page 3.11-1, paragraph 4, sentence 4 to read:**

The Committee collects, prints, and distributes information on oil and gas operations in the state.





## 4. ENVIRONMENTAL CONSEQUENCES

### 4.1. GEOLOGY AND SOILS

#### 4.1.3. NPR-1 Impacts

##### 4.1.3.1 No Action

**Change page 4.1-3, paragraph 4, sentence 3 to read:**

All critical structures at NPR-1 have been upgraded to conform to design standards.

### 4.2. HAZARDOUS MATERIALS AND WASTE MANAGEMENT

#### 4.2.1. SUMMARY OF IMPACTS FOR NPR-1

**Change page 4.2-1 paragraph 4 to read:**

Some programs required by DOE to be implemented under the No Action Alternative (e.g., the RadCon program and environmental training program) may or may not continue on the same level under the Proposed or Alternative to Proposed Action, depending on the environmental practices of the proposed purchaser that ultimately operate the oil and gas production at NPR-1. The waste minimization/pollution prevention program currently implemented by DOE in accordance with DOE Order 0440.1, or some comparable program, is expected to be implemented by the new owner in accordance with the California Hazardous Waste Source Reduction and Management Review Act (California Health and Safety Code Section 25244 et seq.).

**Change page 4.2-2, paragraph 4, sentence 1 to add the following footnote:**

"Although DOE intends to conduct all necessary remedial action on federally owned lands prior to the transfer date, the State Department of Toxic Substances Control has asked DOE to assess particular areas of the site for possible hazardous substance contamination and that process may extend beyond the transfer date. As a result, in accordance with applicable laws, DOE may submit a request to the Governor to defer the requirement that all necessary remedial action be taken prior to the transfer." Any deferral is not expected to have a significant impact to the environment, since assessment and remediation would eventually occur under any of the alternatives.

#### 4.2.3 NPR-1 IMPACTS

##### 4.2.3.1 No Action Alternative

**Delete the last sentence in the first paragraph on page 4.2-4.**

### 4.3. AIR IMPACTS

#### 4.3.3. NRP-1 Impacts

##### 4.3.3.2. Proposed Action

**Insert after page 4.3-5, paragraph 4, sentence 2:**

Any such permits would only be issued after a clear demonstration of consistency with the State Implementation Plan.

### 4.4. WATER RESOURCES

**4.4.1 Surface Water**

**4.4.1.3. NPR-1 Impacts**

**Change page 4.4-3, paragraph 7, the last two sentences to read:**

The only water body on NPR-1 that has been classified as a navigable waterway under the Clean Water Act is Buena Vista Creek. Although NPR-1 has been exempted from the Act's storm water permit requirements, facility personnel (as a best management practice) monitor the quality of storm water entering Buena Vista Creek during heavy precipitation events. No pollution incidents have been observed since this monitoring was initiated in 1992.

**Change page 4.4-3, paragraph 6, sentence 3, to read:**

Smaller volumes of produced water (7,000 to 8,000 barrels per day) are disposed in four active surface sumps, in accordance with waste discharge requirements issued by the Regional Water Quality Control Board.

**4.4.2. Ground water**

**4.4.2.1 Summary of Impacts**

**Change page 4.4-8, paragraph 4, sentence 3 to read:**

Most produced water on NPR-1 is injected into the Tulare Zone, portions of which have been designated as an exempt aquifer for the purpose of Class II underground injection (meaning that Class II injection can occur without having to protect the Tulare Zone as an underground source of drinking water).

**4.4.2.3. NPR-1 Impacts**

**Change page 4.4-13, paragraph 3, sentence 4 to read:**

Wells must be plugged and abandoned in a manner that prevents movement of fluids into or between underground sources of drinking water.

**Change page 4.4-15, paragraph 1, sentence 3 to read:**

However, if an injection well leaks or fails mechanically, the impact on drinking water should not be significant because the Tulare Zone is an exempt aquifer for Class II underground injection (meaning that it is not protected as an underground source of drinking water). In addition, available data indicate that local Ground water is typically nonpotable due to high total dissolved solids levels.

**Change page 4.4-15, paragraph 5 to read:**

There are five active sumps used to dispose of produced water at NPR-1. Four sumps, all located in Section 10G, are in regular use and receive a total of 7,000 to 8,000 barrels of produced water per day. The other active sump, located in Section 26Z, is used only in emergency or abnormal situations, when produced waters cannot be disposed of through normal means (e.g., during injection well system shutdowns). Overall, continued use of these sumps should not cause significant environmental impacts. As it has in the past, the amount of produced water disposed of in sumps is expected to decline, as oil and water production levels continue to trend downward and more of the produced water is recycled for water flooding purposes. There are no new sumps planned for the site. In addition, the active sumps are permitted by the Regional Water Quality Control Board and designed to avoid impacts to drinking water supplies. For example, the one active sump located in an alluvial area where produced water could percolate and potentially contaminate a drinking water aquifer (the emergency sump in Section 26Z) is equipped with a liner.

Although there are several other sumps on-site in Sections 9G and 18G, they are all inactive. Closure and remediation activities of old sumps are summarized in Section 3.2.3.

**Change page 4.4-17, bullet 4 to read:**

- Obtaining permits and complying with waste discharge requirements issued by the Regional Water Quality Control Board for the disposal of produced water in surface sumps; and

**Change page 4.4-20, paragraph 3, sentence 1 and 2 to read:**

The higher production levels expected in the upper bound of the Commercial Development Case, compared to the Reference Case and the upper bound of the Government Development Case, would result in a need for larger volumes of fresh water, a larger number of wells, and larger volumes of produced water and fluid injection. These increased volumes also would imply an increased risk of spills, although an increased availability and commitment of capital toward system maintenance and improvements by commercial entities could act to offset this increased risk.

**Change page 4.4-21, paragraph 3, sentence 1 to read:**

Finally, ... that migrate off-site, outside the portion of the Tulare Zone designated as an exempt aquifer for the purpose of Class II underground injection.

## **4.5. BIOLOGICAL RESOURCES**

### **4.5.1. Summary**

#### ***4.5.1.1. NPR 1 Impacts***

**Change page 4.5-4, paragraph 6, sentence 3 to read:**

However, subsequent legislation restores CDFG's 2081 permitting authority.

**Delete on page 4.5-4, paragraph 6, the last two sentences and insert the following:**

It would be in the new owner's best interests to ensure that the additional measures taken to mitigate the impacts of future planned expansion are approved at both the state and Federal levels. Simultaneous negotiations with CDFG and the USFWS would allow the new owner to develop mitigation measures that meet the requirements of CEQA and the California ESA, as well as the Federal ESA. Such joint negotiations would ensure that expanded development of NPR-1 could be carried out as swiftly as possible, without sacrificing the existing level of mitigation. This is the procedure currently employed in developing HCPs and conducting Section 7 consultations in the San Joaquin Valley for jointly listed species.

#### ***4.5.1.3. Cumulative Impacts***

**Change page 4.5-5, paragraph 2, sentence 3 to read:**

However, even that impact could be mitigated to less than significant levels within the meaning of CEQA by the adoption and implementation of a regional HCP, or other mitigation measures properly structured to account for the loss of the Federal protection of NRP-1.

### **4.5.2. Methodology**

#### ***4.5.2.1 Overview of Approach***

**Insert the following footnote after page 4.5-6, Table 4.5-2, row 4:**

Latest estimates are that only 401 acres have been disturbed to date.

#### **4.5.3. NPR-1 Impacts**

#### **4.5.3.1 No Action Alternative**

**Replace on page 4.5-8, paragraph 1, sentence 1 "...DOE 1987; DOE1992; DOE 1993" to read:**

"EG&G 1987; DOE 1991; DOE 1992"

#### **4.5.3.2. Proposed Action for NPR-1**

**Change page 4.5-27, paragraph 3 to read:**

Issuance of a 2081 permit. Recently enacted legislation (AB21 and SB879) has rendered the California Court of Appeals ruling moot, so that a new owner will be assured of obtaining a 2081 permit. Therefore, this is the most likely approach that a new owner would take in order to obtain the necessary approvals from CDFG. However, these recent changes, enacted in two separate bills, in addition to providing the authority for CDFG to issue a 2081, contain two provisions that are potentially significant to the mitigation of the impacts of the proposed action. Until the necessary regulatory changes are adopted, further understanding of the significance of these changes to the issues analyzed in this document cannot be achieved. First, the revisions provide that if a party already has a Federal Endangered Species Act permit, further authorization is not required under the CESA if the Federal Permit is consistent with CESA. Since the San Joaquin Antelope Squirrel is a state only listed Species, then the new owner would appear to require a 2081 permit. The second important provision is that 2081 has been amended to provide that mitigation measures must be "roughly proportional" to the impacts to the species. Absent implementing regulations, it is uncertain what this means. However, any permit would still be subject to the requirements of CEQA which require the adoption of mitigation measures to reduce the impacts of the action to less than significant. Therefore, at the current time, the discussion in this chapter remains the best available analysis of the impacts of the Proposed Action.

**Change page 4.5-31 BRM-16 in Table 4.5-8 to read:**

Transfer Section 7 permit with all its terms and conditions, including the requirements for the establishment of a 7,075 acre conservation area.

**Add the following mitigation measures below Table 4.5-8 on p. 4.5-32:**

Memorandum of Understanding Mitigation measures (MOUMs). In addition to those measures previously listed, the draft CESA MOU by and between the Elk Hills Unit Operator (EHUO) and the California Department of Fish and Game (CDFG) proposes additional mitigation measures.

MOUM-1: At least 30 days before initiating ground-disturbing activities, the EHUO should designate a representative responsible for communications with CDFG and overseeing compliance with the CESA MOU. CDFG should be notified in writing of the representative's name, business address and telephone number, and should be notified in writing if a substitute representative is designated.

MOUM-2: The EHUO should notify CDFG 14 days before initiating ground-disturbing activities. CDFG should specify other notification timing at its discretion.

MOUM-3: The EHUO should clearly delineate the boundaries of the project site by posting stakes, flags, and/or rope or cord, and should post signs and place fencing as necessary to exclude vehicle traffic unrelated to project construction.

MOUM-4: All project-related parking and equipment storage should be confined to the construction site or to previously disturbed off-site areas. Undisturbed areas and off-site Covered Species habitat should not be used for parking or equipment storage.

MOUM-5: The EHUO should conduct an orientation program for all persons who will work on-site during construction. The program should consist of: 1) a brief presentation from a person knowledgeable about the biology of the Covered Species, the terms of the CESA MOU and CESA; 2) a discussion of the biology of the Covered Species,



their habitat needs, their status under CESA, and management measures of the CESA MOU; 3) a fact sheet containing all this information; and 4) upon completion of the orientation, employees shall sign a form stating that they attended the program and understand all protection measures.

MOUM-6: Exclusion zones should be established to protect dens, nests and burrows as necessary.

MOUM-7: At sites likely to support blunt-nosed leopard lizard, the EHUO should evaluate potential for take of that species before conducting ground-disturbing work. If there is a likelihood of take, the EHUO should modify the project, or employ relocation or other take-avoidance measures subject to CDFG's written or verbal approval.

MOUM-8: Disturbed areas should be revegetated within two years from the cessation of disturbance, given normal rainfall for two consecutive years.

MOUM-9: For specific construction projects, the EHUO should conduct compliance inspections once a week during construction. CDFG should require summary compliance reports on a monthly or longer basis for long-term projects, and should require a final compliance report within 45 days of project completion.

MOUM-10: The EHUO should allow CDFG representatives access to the project site to monitor compliance with the terms and conditions of the CESA MOU.

MOUM-12: The EHUO should provide habitat management lands prior to disturbances. The habitat lands should be on or adjacent to the EHU, and CDFG should require that they be adjacent to other protected lands.

MOUM-13: The habitat management lands acreage is based upon biological assessment of the project's impact on the Covered Species and an estimate of the acreage necessary to provide for adequate biological carrying capacity at are placement location.

MOUM-14: The EHUO should agree to provide a recent preliminary title report and initial hazardous materials survey report for the habitat management lands to CDFG.

MOUM-15: Prior to the transfer of habitat management lands to CDFG, the EHUO should inspect the habitat lands and remove any debris located thereon. A biologist acceptable to CDFG should be contracted to recommend suitable protection for the habitat management lands.

MOUM-15: If fee title to the habitat management lands is transferred to CDFG or to an approved non-profit corporation, the EHUO agrees to provide to CDFG or the non-profit corporation, a check in an amount to be determined by an analysis of the scope of management, but at least \$375/acre, drawn from a banking institution located within California for use as principal for a permanent capital endowment. Interest from this amount should be available for the operation, management and protection of the habitat management lands. Operation, management, and protection activities should include reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action designed to protect or improve the habitat values of the habitat management lands. The endowment principal should not be drawn upon unless such withdrawal is deemed necessary by CDFG or non-profit corporation to ensure the continued viability of the species on the habitat management lands. Monies received by CDFG pursuant to this provision should be deposited in a special deposit account established pursuant to Government Code 16370. CDFG should pool the endowment with other endowments for the operation, management and protection of habitat management lands for local populations of the Covered Species.

MOUM-16: The EHUO should agree to reimburse CDFG for reasonable expenses incurred as a result of the approval and implementation of the project, including costs of title and document review, expenses incurred from other state agency reviews, CDFG costs directly related to administration of the CESA MOU, including travel, personnel, and overhead. The Parties estimate that this project would create an additional cost to CDFG of no more than \$3,000.00 annually.

#### **4.5.4. NPR-2 Impacts**

#### ***4.5.4.2 Recommended Action for NPR-2: Transfer of NPR-2 to Bureau of Land Management***

**Replace page 4.5-37, paragraph 6, with the following:**

Mitigation measures under BLM management would be virtually identical to those under the "No action - continued DOE leasing" alternative since both are federal agencies and have the same requirements under the Endangered Species Act.

#### ***4.5.4.4. Comparison of Impacts Resulting from the Proposed Action and Alternatives for NPR-2***

**Replace page 4.5-39, Table 4.5-10, in the "Transfer to BLM" column with the following:**

The same abbreviations as appear in the "continued DOE Leasing" column.

### **4.5-6 References**

**Change page 4.5-52, lines 1, 2 and 3 to read:**

Berry, W.H., et al., 1987, Sources and Rates of Mortality of the San Joaquin Kit Fox, Naval Petroleum Reserve #1, Kern County, California, 1980-1986, Santa Barbara Operations Goleta, California.

Suter II, Glenn W., et al., 1992, Results of Analyses of Fur Samples from the San Joaquin Kit Fox and Associated Soil and Water Samples from the Naval Petroleum Reserve No.1, Tipman, California, Oak Ridge National Laboratory, Oak Ridge, Tennessee.

U.S. Department of Energy, 1991, Biological Assessment of the Effects of Petroleum Production at Maximum Efficient Rate, Naval Petroleum Reserve No. 1 (Elk Hills), Kern County, California, on Threatened and Endangered Species, Department of Energy, Naval Petroleum Reserves in California.

### **4.6. CULTURAL RESOURCES**

**Replace page 4.6-1, Section 4.6 to read:**

This section discusses the current status of the analysis of potential impacts of the Proposed Action and Alternatives to cultural resources on NPR-1 and NPR-2. Section 4.6.1 summarizes the analysis to date. Section 4.6.2 describes the methodology used to identify and determine the significance of cultural resources. Section 4.6.3 discusses the ongoing analysis at NPR-1. Section 4.6.4 discusses cultural resources on NPR-2. Finally, Section 4.6.5 discusses the potential for cumulative impacts.

#### **4.6.1. Summary of Impacts**

Approximately 50 percent of the area of NPR-1 has been subject to archaeological survey and inventory. There are 106 historic archaeological sites (including five historic components of prehistoric/historic multi-component sites) and three isolated finds documented at NPR-1. These sites consist of artifacts relevant to the history of industrial development in the region. Fifty-seven (57) prehistoric sites and 35 prehistoric isolates had been documented at NPR-1 as of December 1996. These sites are represented by accumulations of flaked and ground stone, shell and bone artifacts, features, faunal dietary remains (especially *Anadonta* shell) and (at two known sites) human remains. Results of a review of the records of all of these sites and prehistoric resources, with field testing of some during 1997, form the basis for recognition of an Elk Hills Archaeological District that is eligible for the NRHP under criterion 36CFR60.4(d), due to its potential to yield information important in prehistory. Further evaluation of the information discussed in the DSEIS/PEIR has resulted in a determination by DOE that four prehistoric sites are eligible for the NRHP. In August 1997, the California State Historic Preservation Officer (SHPO) concurred in this determination.

Under both the No Action Alternative and the Alternative to the Proposed Action, there would be a continuing Federal obligation under the National Historic Preservation Act and other applicable statutes to protect cultural resources and

to consult with the SHPO before taking any action that could affect such resources. This would mitigate any impacts of future oil and gas development under either of these alternatives to less than significant.

Under the Proposed Action, preliminary archaeological surveys indicate that no impacts to significant historic archaeological sites or buildings are expected primarily because any such sites already have been so disturbed as to destroy their informational values. The potential loss of information from the District under the NPR-1 Proposed Action or the NPR-2 Alternative Action is expected to be mitigated through a data recovery program stipulated in a Programmatic Agreement among DOE, the SHPO and the Advisory Council on Historic Preservation. This agreement currently is in preparation, with completion expected by December 1997. The mitigation measures to be included in the agreement are expected to be completed by February 1998 before any proposed sale of NPR-1.

Sites containing human remains have religious significance for Native Americans. There are two known locations containing human remains and six others that are considered likely to contain remains because of similarities in their makeup to sites on or near NPR-1 that contain human remains. DOE believes that all locations likely to contain human remains have been identified because, following an analysis of all previously recorded prehistoric resources, an additional archaeological survey of approximately 3000 acres was completed September 1997 of all previously unsurveyed areas predicted to be sensitive for prehistoric archaeological resources. None of the newly recorded prehistoric resources identified by the recently-completed survey appeared to be like the two locations where human remains have been previously found. Impacts to the two locations where human remains have been previously found and to some of the other locations that are considered or likely to contain human remains, which have religious significance, could be mitigated through inclusion of these sites within the acreage set-aside for conservation of biological resources. However, it is uncertain that all of the locations of concern would be included within the conservation set-aside. Hence both the NPR-1 Proposed Action and the NPR-2 Alternative Action are likely to have significant impacts on some places of religious significance to Native Americans.

#### **4.6.2. Methodology**

The California SHPO has indicated that the sale or transfer of Federal land is considered to be an undertaking that may have an adverse effect on cultural resources. To determine the potential impacts of the Proposed Action and Alternatives, the SHPO will need to concur on DOE determinations of NRHP-eligibility for identified sites, historic districts or cultural landscapes in the sale area and then consider potential effects on these. The SHPO has concurred that there are prehistoric resources eligible for the NRHP and is currently reviewing a request for concurrence on significance of a cultural landscape comprising the historic period sites.. Concurrence on the significance of the prehistoric Elk Hills Archaeological District will be a part of the Programmatic Agreement.

CEQA approaches the determination of the significance of archaeological resources with more stringency than the Federal criteria for eligibility to the National Register of Historic Places. Under CEQA, if a project may cause damage to an "important archaeological resource," the project may have a significant effect on the environment. For the purposes of CEQA, an "important archaeological resource" is one which:

1. Is associated with an event or person of:
  1. Recognized significance in California or American history, or
  2. Recognized scientific importance in prehistory;
2. Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable or archaeological research questions;
3. Has a special or particular quality such as oldest, best example, largest or last surviving example of its kind;
4. Is at least 100 years old and possesses substantial stratigraphic integrity; or
5. Involves an important research question that historical research has shown can be answered only with archaeological methods.

The proposed Elk Hills Archaeological District includes resources that meet CEQA definitions of importance and DOE is working with the SHPO through the Programmatic Agreement process to develop appropriate mitigation. Likewise, should the SHPO concur on the significance of the historic cultural landscape, DOE will include appropriate mitigation of impacts in the Programmatic Agreement..

The SHPO also inquired whether any Native American groups have expressed concern about the proposed sale of NPR-1. DOE is currently working with Native Americans (Yokuts, Paiute, Kitanemuk and inland Chumash) with traditional ties to Elk Hills to identify their concerns (see Section 3.6.3.4) and possible mitigation measures (see below).

In late July 1997, DOE submitted a draft Programmatic Agreement to the SHPO for concurrence on project effects and mitigation measures. The SHPO declined to comment until it received information documenting the presence of NRHP-eligible historic properties on NPR-1. Following SHPO concurrence in August 1997 on the NRHP-eligibility of four prehistoric sites, DOE and SHPO began discussing revisions to the initial draft Programmatic Agreement. DOE and the SHPO expect to complete an agreement, with approval of the Advisory Council, by December 1, 1997.

#### **4.6.3. NPR-1 Impacts and Mitigation**

Approximately 50 percent of the area of NPR-1 has been subject to archaeological survey and inventory. There are 106 historic archaeological sites (including five historic components of prehistoric/historic multi-component sites) and three isolated finds documented at NPR-1. The sites are classified into eight types: Navy Wells; 4-Pad Wells; General Wells; Industrial Plant; Kiln Remnants; Structural Remnants; Railroad Grades; and Trash Dumps. Three historic period isolated finds are formally documented, although individual and clusters of historic period artifacts are widely distributed at NPR-1. The historical archaeologist currently working on analyzing the historical resources reports that all 21 of the documented historic period sites inspected in 1997 have sustained significant damage by vandalism, which has compromised their integrity. None of the recorded historic period sites or artifacts is regarded as individually eligible for listing in the National Register of Historic Places (NRHP) according to 36 CFR 60.4 (Criterion D). NPR-1 itself may be NRHP-eligible at the local, state or national level, as a rural historic landscape according to 36 CFR 60.4, Criterion A for its role in the development of the California oil industry, as the nation's first Naval Petroleum Reserve and for its relationship to the infamous "Teapot Dome" scandal of the Harding presidential administration. On September 16, 1997, DOE submitted a recommendation to the SHPO that NPR-1 may be NRHP-eligible as a rural historic landscape. The SHPO is currently reviewing this evaluation.

Fifty-seven (57) prehistoric sites and 35 prehistoric isolates are documented at NPR-1. These sites are represented by accumulations of flaked and ground stone, shell and bone artifacts, features, faunal dietary remains (especially *Anadonta* shell) and (at two known sites) human remains. Hypothetically, these remains could date from 10,000 years before present (B.P.) to historic times (ca. A.D. 1850) but studies at NPR-1 prehistoric sites to-date suggest that most remains date to the late prehistoric period post-A.D. 1500.

The actual number of prehistoric archaeological sites and isolated finds at NPR-1 is uncertain. Based on work completed in September 1997, on analyzing the previously recorded sites, DOE archaeologists have determined that the vast majority of prehistoric archaeological sites at NPR-1 occur in geomorphic environments characterized by deflation. It is very difficult to ascertain, based on surface inspection alone, whether observed cultural material is *insitu* and whether the material retains integrity. The majority of 18 sites inspected by archaeologists in 1997, using limited subsurface excavation, were found to be so substantially deflated that they do not retain integrity. At the same time, cultural remains on the surface of other "sites" were found to have been redeposited to their observed location by wind and rain. Additionally, oil field development in the high production area of NPR-1 has so substantially transformed the topography of the area that it is unlikely that the number and distribution of prehistoric archaeological sites in those portions of the installation can ever be known.

Twelve prehistoric archaeological sites at NPR-1 have been evaluated for NRHP eligibility and four have been determined by DOE to be potentially eligible for NRHP listing according to 36 CFR 60.4 (Criterion D): CA-KER-3079, CA-KER-3080, CA-KER-3082 and CA-KER-3085/H. SHPO concurred in this determination in August 1997. Results of a review of all sites and prehistoric resources recorded as of late 1996, with field testing of some in 1997, form the basis for recognition of an Elk Hills Archaeological District that is eligible for the NRHP under criterion 36CFR60.4(d), for its potential to yield information important in prehistory. SHPO concurrence on the significance of the prehistoric Elk Hills Archaeological District will be a part of the Programmatic Agreement.

##### **4.6.3.1. No Action Alternative**

There would be no effect on archaeological resources if DOE continues its current procedures of pre-activity survey and consultation with the SHPO to prepare treatment plans when historic properties or CEQA-important sites cannot be avoided. There may be impacts on places of traditional or religious importance to Native Americans if there are sites other than sites containing human remains that have this importance. Currently there is no overall inventory of such sites on NPR-1 and no procedures requiring project-specific inventories as part of the clearance process. However, all locations known to contain or considered likely to contain human remains are recognized to have religious significance to Native Americans. Because these are protected by the same procedures that protect archaeological resources, no impacts to resources of this type are expected.

There are no impacts expected to paleontological resources under any of the alternatives. As indicated in Section 3.6, there are only two exposures of significance on NPR-1 and these are currently exposed in road cuts. Continued road maintenance is expected to keep the exposures visible and accessible to scientists and there is no expectation that future production activities would destroy these localities. Future work may expose additional localities, but is not expected to provide exposures of other significant paleontological resources. Hence no impacts are expected.

**4.6.3.2. Proposed Action**

The SHPO has concurred that there are significant prehistoric resources at NPR-1 and that some of these have religious significance for Native Americans. The SHPO is reviewing the possibility that the historic resources at NPR-1 comprise a historic cultural landscape. DOE and SHPO staff are developing a Programmatic Agreement to fulfill DOE's responsibilities under the National Historic Preservation Act.

Although SHPO consultation is still in progress, preliminary results suggest the following conclusions about impacts. No impacts to historic archaeological sites or buildings are expected from any of the NPR-1 alternatives as these sites have already been so disturbed as to destroy their value. None of the individual historic sites appear to meet the criteria for NRHP-eligibility or importance under CEQA criteria, i.e., they embody no significant values that would be lost if they are damaged or destroyed. As a group, they may comprise a historic cultural landscape significant for the role it played in local and state history and development of the oil and natural gas fields; the SHPO has not yet made this determination. However, even if the landscape is determined to be NRHP-eligible, the sale of NPR-1 is not expected to have an impact on the landscape because the sale will not change the nature of the landscape, i.e. oil and gas production activities will continue. Should the SHPO determine that additional historic research is warranted to document the historical values embodied in the landscape, such research will be specified as a requirement in the Programmatic Agreement. With regard to prehistoric resources, the SHPO has agreed that the Proposed Action would cause impacts unless DOE carries out mitigation measures to be specified in the Programmatic Agreement. Furthermore, at least two locations contain human remains, which makes them significant for Native Americans. It appears that the prehistoric sites that are NRHP-eligible, CEQA-important, and of concern to Native Americans, are located away from active oil production areas. However, under the Proposed Action, some of these sites might be disturbed or destroyed as a result of oil production or related activities.

**4.6.3.3. Mitigation**

DOE and the SHPO are currently in the process of entering into a Programmatic Agreement concerning cultural resources at NPR-1. This agreement will include appropriate mitigation measures that DOE will commit to prior to the sale of NPR-1. Although this is not expected to be finalized until December 1, 1997, the agreement is likely to include the measures discussed below.

An additional survey of approximately 3,000 acres was completed in September 1997. This survey encompassed those areas known to be archaeologically sensitive based on the results of prior archaeological survey and archival historic research. As a result of this latest survey, all areas expected to be archaeologically sensitive for prehistoric resources have been surveyed.

A set of prehistoric resources representative of those types known on NPR-1 would be treated through data recovery consisting of surface mapping and collection, subsurface excavations and analysis to address questions in the research design prepared as part of the ongoing studies ancillary to preparation of this document. Work would be conducted

under permits issued pursuant to the archaeological Resources Protection Act of 1979 (ARPA) with appropriate notice to Native Americans in compliance with the Native American Graves Protection and Repatriation Act (NAGPRA). This work will be completed before the completion of the sale process. The treatment plan is expected to reflect consideration of NPR-1 as a prehistoric archaeological district, with emphasis on recovering the information that makes the district NRHP-eligible and protecting Native American values identified through consultation. Additionally, archaeological collections would be curated to appropriate standards. An article would be prepared for archaeological journals and a booklet describing the results of the analysis would be prepared and distributed to oil museums, schools, government agencies and others.

Protection of Native American values could be accomplished by inclusion of as many as possible of those locations known to contain human remains or considered likely to contain human remains (based on the above studies) in the acreage set-aside for biological resource conservation. The SHPO has indicated to DOE that the Programmatic Agreement that will define mitigation of impacts to the prehistoric archaeological resources must also address concerns related to NAGPRA. As DOE develops the Programmatic Agreement with the SHPO, DOE will provide for involvement and comment by Native Americans, both from tribes on the NAGPRA list and from others with traditional ties to Elk Hills.

Although physical destruction of historic archaeological sites would not affect the criteria that make them contributors to a NRHP-eligible historic cultural landscape (if SHPO concurs that one is present), DOE would mitigate potential effects on specific development features and the overall historic landscape in the following ways.

1. Prepare a scholarly history of NPR-1 based on archival research that provides a context for understanding the buildings and archaeological features that have been recorded;
2. Publish findings of the historic archaeological research and field work through 1997 in scholarly journals;
3. Prepare and publish a history of NPR-1 for the lay public, to be distributed to schools and historical societies in California; and
4. Update existing site records to ensure that good examples of each type of historic archaeological site are thoroughly recorded to the most recent state of California standards.

#### ***4.6.3.4. Alternatives to the Proposed Action***

The impacts under the Alternative to the Proposed Action would be the same as the No Action Alternative, as the government would continue to hold an ownership interest in the property.

#### ***4.6.3.5. Comparison of Impacts***

No action and the Alternative to the Proposed Action would have no effect, except on Native American traditional or religious sites. The Proposed Action would have potential effects, mitigable through the measures described above.

### **4.6.4. NPR-2 Impacts**

#### ***4.6.4.1. No Action Alternative***

There would be no effect on archaeological resources if DOE continues its current procedures of pre-activity survey and consultation with the SHPO to prepare treatment plans when historic properties or CEQA-important sites cannot be avoided. There may be impacts on places of traditional or religious importance to Native Americans unless current procedures are augmented to require specific consideration of these resources in ongoing activities. Currently there is no overall inventory of such sites on NPR-2 and no procedures requiring project-specific inventories as part of the clearance process.

#### ***4.6.4.2. Recommended Action***

Continued oversight by a federal agency would require continued compliance with the NHPA. Hence, as with the No Action Alternative, no significant impacts would result. This conclusion extends to Native American sites on the assumption that the Bureau of Land Management would apply to NPR-2 its guidelines for Native American

consultation (BLM 1990 and 1994).

4.6.4.3. *Alternative Action*

Impacts under this action would be similar to impacts under the commercial sale scenarios for NPR-1 and would depend upon the degree to which CEQA would apply to production activities and to particular sites and site types at NPR-2. This impact analysis will be completed when this information is available from the NPR-1 SHPO consultation process.

4.6.5. **Cumulative Impacts**

Both NPR-1 and NPR-2 sale scenarios would add to ongoing impacts to significant prehistoric sites, some of which have Native American values associated with burials and cemeteries. The cumulative effect would be more than additive because only NPR-1 and NPR-2, among all the projects considered, currently require NHPA compliance. Hence, a block of sites that has been protected up to this time would be lost. However, the mitigation measures discussed above would likely reduce this effect to less than significant.

4.6.6. **References**

BLM see U.S. Department of the Interior, Bureau of Land Management.

U.S. Department of the Interior, Bureau of Land Management, 1990, BLM Manual Section 8160 - Native American Coordination and Consultation, Washington D.C., January.

U.S. Department of the Interior, Bureau of Land Management, 1994, BLM Manual Handbook H-8160 - 1, General Procedural Guidance for Native American Consultation, Washington D.C., November.

4.10. **HAZARDS RISK ASSESSMENT**

4.10.3. **NPR-1 Impacts**

Replace page 4.10-4, Table 4.10-4 with the following table:

Table 4.10-4 Hazard Scenario Risk Ranking Matrix

LIKELIHOOD					
Frequent					
Likely					
Unlikely					
Rare					
Extraordinary					
	Negligible	Minor	Major	Severe	Disastrous
SEVERITY					

4.11. **ENERGY CONSERVATION**

4.11.1. **Summary of Impacts for NPR-1**

Insert the following table after page 4.11-1, paragraph 3:

**NPR-1 Summary of Production Projections With Energy Equivalents of Total Energy Consumption For All Development Cases**

	Production Projections Total1997- End of Field Life (MMBOE)	Energy Equivalent <sup>a</sup> of Total1996 Energy Consumption <sup>b</sup> (days)
Reference Case Total Hydrocarbon Production	856	31.13
Government Case - Lower Bound Total Hydrocarbon Production	582	21.16
Government Case - Upper Bound Total Hydrocarbon Production	1,089	39.60
Commercial Case - Lower Bound Total Hydrocarbon Production	918	33.38
Commercial Case - Upper Bound Total Hydrocarbon Production	1,433	44.55

<sup>a</sup> = Energy equivalent calculated using the conversion equation bbl = 5.800 mmbtu and with the statistic 1996 Total US Energy Consumption = 58.214 quadrillion btu.

((Case amount MMBOE \* 5800000 btu per bbl) / 58.214 quad btu per year) \* 365days

<sup>b</sup> = The 1996 Total US Energy Consumption estimate was referenced from the EIA/DOE web site for petroleum and natural gas consumption in the United States.

4.11-3 NPR-1 IMPACTS

4.11.3.1 No Action

Insert the following after page 4.11-2, paragraph 2, the last sentence:

As the existing transmission lines and associated facilities were developed to support higher levels of electricity use on NPR-1 before the installation of the on-site cogeneration facility, these facilities are adequate to handle any future needs for the delivery of electric power to the site in excess of the capacity of the cogeneration plant without the need for any significant new construction that might impact the surrounding environment.







**8. LIST OF PREPARERS/CONTRIBUTORS**

**Remove Thom Kato's Name From the List of Preparers.**





# GLOSSARY

**Insert the following definition of biodiversity to the glossary on page GLS-1:**

Biodiversity can be defined as "the variety of organisms considered at all levels, from genetic variants belonging to the same species through species to arrays of genera, families, and still higher taxonomic levels." Biodiversity also includes "the variety of ecosystems, which comprise both the communities of organisms within particular habitats and the physical conditions under which they live" (E.O. Wilson, 1992, The Diversity of Life, W.W. Norton & Co., New York, NY). According to DOE, "ecological organization, and therefore biodiversity, is a hierarchically arranged continuum, and reduction of diversity at any level will have effects at the other levels." (DOE, 1994, Incorporating Biodiversity Considerations Into Environmental Impact Analysis Under the National Environmental Policy Act).





## APPENDIX C. NPR-2 OPERATIONS, FACILITIES AND PRODUCTION

### Change page C.2-1, paragraph 1, sentence 1 to read:

Currently there are approximately 200 active wells, 225 abandoned or idle wells, 34 tank settings and six oil/water sumps on DOE lands within NPR-2.

### Change page C.2-1, paragraph 1, sentence 2 to read:

Continued production and development of known reserves at NPR-2 would require drilling and completing new production wells, commonly known as in fill wells.

### Change page C.2-1, paragraph 1, sentence 4 to read:

The additional production or in fill wells would require pipelines, pumps, storage tanks, and other permanent equipment.

### Change page C.2-1, paragraph 4, bullet 2 to read:

Workers are trained in emergency response procedures to protect human health and the environment.

### Change page C.2-2, paragraph 2, sentence 1 to read:

The private companies that conduct petroleum-related activities on DOE-owned NPR-2 lands include Chevron USA, Inc. Fred S. Holmes; Aera Energy; Oakland Petroleum Operating Company; Phillips Petroleum Company; Texaco, USA; UNOCAL Corporation; Vintage Petroleum Company; and numerous petroleum pipeline companies (see Figure 1.4.1).

### Change page C.2-2, paragraph 5 to read:

Aera Energy / Oakland Petroleum Operating Company. Aera has three leases totaling 280 acres (110 ha) in Section 32G. Aera has reassigned one of these leases totaling 80 acres (32 ha) to the Oakland Petroleum Operating Company and has not conducted operations on lands under the other two leases for over 30 years. Aera is considering reassigning the remaining two leases as well. Oakland is currently operating one tank setting and two stripper wells. The stripper wells produce eight barrels/d. The tank setting consists of one 500-barrel shipping tank, one 100-barrel produced water tank, one 500-barrel oil/ water separator, and one covered oil/water sump. Oakland generates approximately 9,000 barrels of produced water per year, which is disposed of by injection off-site.

### Delete page C.2-3, paragraph 5.

### Change page C.2-3, paragraph 2, sentence 3 to read:

Texaco operates approximately 124 oil and gas wells and produces approximately 447 barrels/d of oil, 6,857 MCF/d of gas, and 6,300 gallons/d of natural gas liquids.





## APPENDIX D. AIR RESOURCES

**Revise page D.2-3, Table D.2-1 to reflect the following changes:**

- change the 8 hour California standard for CO from 9 to 9.0 ppm;
- delete the duplicate listing of the one hour California standard for NO<sup>2</sup>;
- change the one hour California standard for NO<sub>2</sub> from 131 to 470µg/m<sup>3</sup> ;
- add the one hour California standard for SO<sub>2</sub> of 0.25ppm;
- add the 24 hour California standard for SO<sub>2</sub> in units of µg/m<sup>3</sup>of 105; and
- change the text describing the California standard for Visibility-reducing Particles from "Insufficient amount..." to "In sufficient amount..."

**Revise page D.2-4, Table D.2-3, Kern County Attainment Status, to reflect the following changes:**

- The attainment status for the state standard for Ozone is revised to read "Severe Nonattainment"
- The attainment status for the state standard for Carbon Monoxide is revised to read "Attainment".

**Change page D.2-10, paragraph 2 to read:**

Of the four monitoring stations in Kern County where samplers were in operation throughout the year, only the Bakersfield Golden state Highway site measured an exceedance of the annual NAAQS for PM<sub>10</sub> (60ug/m<sup>3</sup>as an arithmetic mean) in 1995. All four stations with PM<sub>10</sub>monitoring, however, exceeded the California standard (50 ug/m<sup>3</sup>) while the federal 24-hour standard (150 ug/m<sup>3</sup>) was exceeded at only one station (Oildale). These data show that PM<sub>10</sub> emissions continue to be a major air pollution problem in the county (DOE 1993).

**Delete page D.2-11, paragraph 1, sentence 5.**





# CHAPTER FOUR

## Changes to the Draft Supplemental Environmental Impact Statement/Program Environmental Impact Report

Editorial note: The paragraphs referred to in this Chapter are full paragraphs counting from the top of a given page. Thus, paragraph 2, for example, refers to the second complete paragraph on the page.





## EXECUTIVE SUMMARY

**Replace on ES-1, heading "Executive Summary" to read:**

Summary

**Change page numbers ES-1 to ES-20 to S-1 to S-20.**

**Insert the following after page ES-2, paragraph 3, sentence 1:**

DOE has selected the Proposed Action as its Preferred Alternative.

**Change page ES-2, paragraph 4, sentence 3 to read:**

Estimated total production for the Commercial Development Case ranges from approximately 849 to 1,225 million barrels of oil equivalent from 1997 to 2034.

**Change page ES-5, paragraph 1, sentence 5 to read:**

Estimated total production for the Reference Case is approximately 730 million barrels of oil equivalent (including oil, gas, and other non-gas liquids) from 1997 through 2034.

**Change page ES-5, paragraph 2, sentence 4 to read:**

Estimated total production for the Government Development Case ranges from approximately 689 to 950 million barrel of oil equivalents from 1997 through 2034

**Change page ES-7, paragraph 3, sentence 2 to read:**

Currently there are approximately 200 active wells, 225 abandoned or idle wells, 34 tank settings and six oil/water sumps on DOE lands within NPR-2.

**Change page ES-7, paragraph 3, sentence 3 to read:**

Expected activities in NPR-2 include drilling and completing approximately 75 new production wells.

**Change page ES-7, paragraph 3, sentence 6 to read:**

In addition, petroleum support facilities would be kept in good repair to ensure operation of tank settings and oil/water/gas hydration/lease automatic custody transfer (LACT) units.

**Change page ES-8, item 2, sentence 1 to read:**

NPR-2 Sale of Remaining Mineral Rights Subject to Current Leases and Transfer of Remaining Interest to BLM for Management of the Surface Interest in Accordance with Federal Law would have DOE sell the remaining mineral rights in NPR-2, subject to existing leases, and then transfer DOE's current permitting and management responsibilities for the existing leases to BLM.

**Replace paragraph 1 on page ES-10 with the following:**

The third major impact from the future development of NPRs would be the possibility that state ambient air quality standards for PM<sub>10</sub> could be exceeded off-site and on-site Federal ambient air quality standards for NO<sub>2</sub> and state

ambient air quality standards for PM<sub>10</sub> and SO<sub>2</sub> might be exceeded. As stated in Section 4.3.1, for the two years analyzed, no violations of Federal or state ambient air quality standards were predicted in the areas surrounding NPR-1 with one exception: off-site particulate concentrations (PM<sub>10</sub>) under all cases are estimated to exceed the state ambient air quality standards for both years. 2001 NO<sub>x</sub> emission concentrations on-site are also expected to exceed Federal ambient air quality standards; while 2001 SO<sub>2</sub> concentrations and PM<sub>10</sub> concentrations for both years on-site are estimated to exceed state standards. The on-site exceedances are expected to occur where the public does not have access.

**Insert the following after page ES-10, paragraph 2, sentence 3:**

Assuming an increase in future oil spills corresponding to increased production levels, oil spill risk levels are not considered significant.

**Insert the following after page ES-10, paragraph 3, sentence 4:**

The risk of contamination is also mitigated somewhat by the fact that local water quality is typically nonpotable due to high total dissolved solids levels.





## **2. ALTERNATIVES INCLUDING THE PROPOSED ACTION**

### **2.1. OVERVIEW**

**Insert the following after page 2.1-1, paragraph 1, sentence 3:**

DOE has selected the Proposed Action as its Preferred Alternative.

**Delete the following in the second sentence in bullet six of Table 2.1-1 on Page 2.1-2:**

"and cultural resources"

### **2.2. NPR-1 PROPOSED ACTION AND ALTERNATIVES**

**Change page 2.2-1, paragraph 4, sentence 4 to read:**

These requirements include environmental compliance, financial responsibility, well activity approval, well closure approval, and proper conservation activities of the natural resource.

**Insert the following on page 2.2-2, paragraph 1, sentence 3:**

...(for commercial Class II injection wells).

**Insert the following after page 2.2-2, paragraph 4, sentence 4:**

The DOGGR's discretionary Permit to Conduct Well Operations could include conditions used for environmental mitigation required in the NEPA/CEQA process.

**Change page 2.2-2, paragraph 4, sentence 5 to read:**

In carrying out its authorities, DOGGR is advised by the Conservation Committee of California Oil and Gas Producers (CCCOGP), a unique, industry supported, tax exempt organization that was created in 1929 and that pursuant to state statute has administered a voluntary hydrocarbon resource conservation program for DOGGR since 1995.

#### **2.2.1. The Reference Case**

**Change "CCCOGP" in Footnote 5 on page 2.2-4 to read:**

"CCCOGP"

#### **2.2.3 NPR-1 Proposed Action**

**Insert the following after page 2.2-11, paragraph 1, sentence 2:**

DOE has selected the Proposed Action as its Preferred Alternative.

### **2.3. NPR-2 RECOMMENDED ACTION AND ALTERNATIVES**

#### **2.3.2. NPR-2 Recommended Action**

##### ***2.3.2.1. NPR-2 Recommended Action: Transfer of NPR-2 to BLM***



**Change page 2.3-3, paragraph 1, sentence 6 to read:**

The Department of Interior's Minerals Management Service would collect royalties from NPR-2 production, as it does for all leases managed by BLM.

**2.3.3. NPR-2 Alternatives to the Recommended Action**

***2.3.3.2. NPR-2 Alternative Considered But Not Analyzed in Detail: Sale of Remaining Mineral Rights Subject to Current Leases and Transfer of Remaining Interest to BLM for Management of the Surface Interest in Accordance with Federal Law***

**Change page 2.3-5, paragraph 5, sentence 5 to read:**

Like the purchasers of the smaller non-operating interests in Sales Scenario1 of the proposed NPR-1 action, the buyers of the remaining mineral rights would not control how future development of reserves would occur unless the buyer were the same as the existing lessee of a given tract of land.

**2.4. CUMULATIVE PROJECTS**

**2.4.1. Basis for Cumulative Projects**

**Change page 2.4-1, paragraph 3, sentence 4 to read:**

For comparative purposes, that EIS estimates that 150 to 260 new wells would be drilled annually on Federal lands compared to the highest projected well drilling activities under this DSEIS/PEIR of 89 new wells to be drilled on NPR-1 and NPR-2.

**2.4.2. Cumulative Oil and Gas Projects**

**Change page 2.4-2, paragraph 4, sentence 6 to read:**

Although Elk Hills is the fourth largest oil field in California, from 1994 to 1995 it ranked third among the top ten oil fields with the largest production decreases.

**Change page 2.4-3, paragraph 1, sentence 6 to read:**

Buena Vista ranks tenth among the California giant oil fields, with ultimate recovery of 100 million barrels or more.

**Change page 2.4-6, partial paragraph 1, sentence 1 to read:**

Producers at Midway-Sunset include BLM lessees and more than 50 private companies and independents.

**Insert the following after page 2.4-3, paragraph 3, sentence 1:**

Producers at McKittrick include BLM lessees and more than 13 private companies and independents.

**Change page 2.4-6, paragraph 7, sentence 4 to read:**

Producers at Cymric include BLM lessees and more than 25 private companies and independents.





### 3 DESCRIPTION OF EXISTING ENVIRONMENT

#### 3.1. GEOLOGY AND SOILS

##### 3.1.6. Soils

**Change page 3.1-4 and page 3.1-5 paragraph 4 and paragraph 1 respectively to read:**

The soils of Elk Hills are composed of highly stratified deposits that vary greatly in their proportions of gravel, sand, silt, and clay. Some strata are gravelly sands, some are clayey, and some have a loamy texture with a mixture of sand, silt, and clay that is poorly sorted. A few areas have a soil layer that is chemically cemented hard pan (Regal 1997).

Many areas of Elk Hills contain loamy surface soils that are underlain by mottled clayey former lake deposits. Some of the subsurface layers containing gypsum crystals and other salts (e.g., sodium, chlorine, and boron) that commonly accumulate in arid regions. Salt concentrations usually are highest in fine-grained soils where the low permeability associated with these materials, low annual precipitation, and insufficient perennial surface water allow only minimal leaching to occur. In these high-saline areas, plant growth is reduced dramatically and shifts toward more salt-tolerant species.

#### 3.2. HAZARDOUS MATERIALS AND WASTE MANAGEMENT

##### 3.2.1. Applicable Regulations

**Change page 3.2-1, paragraph 5, sentence 2 to read:**

"and NPR-2 are" with "is"

##### 3.2.3. Updated Status of Waste Facilities

**Insert the following footnote on page 3.2-3 at the end of the first partial sentence:**

Any hazardous waste or wastes containing PCBs at these transfer areas would be disposed of at a properly permitted facility before transfer of NPR-1 to a new owner.

**Change page 3.2-3, Table 3.2-1, fourth row to read:**

Facility: Section 20 trash dump

Waste Managed or Contamination (if applicable): general trash

Activity and Status: Cleaned up and sold by ARCO to Vintage in 1997

References: Dave Bone (BPOI)

**Change page 3.2-3, Table 3.2-1, seventh row under the "Waste Managed or Contamination (if applicable)" heading to read:**

"copper, chrome, and oily soil."

**Delete the last row in Table 3.2-1 on page 3.2-3.**

#### 3.3. AIR RESOURCES

### **3.3.1. Applicable Regulations**

**Change page 3.3-1, paragraph 4, last sentence, to read:**

"SO<sub>2</sub>" with "sulfur compound"

**Insert the following footnote on page 3.3-1, paragraph 4, last sentence:**

Based on a review of Permits to Operate issued by the San Joaquin Valley Unified Air Pollution Control District.

**Delete the following from page 3.3-1, paragraph 7, sentence 1:**

"ATCs and."

**Change page 3.3-3, paragraph 3, sentence 6 to read:**

In general, the larger IC engines did not meet the BARCT standard in 1995. However, with the implementation of appropriate control technology, they are expected to meet the SJVUAPCD limits required by 2001.

**Insert the following bullet after page 3.3-4, partial paragraph 1, bullet 3:**

- VOC - 546.3 tons per year.

**Replace on page 3.3-4, paragraph 1, sentence 2 with the following:**

DOE may retain ownership of the ERCs or may transfer them to the new owner. If DOE retains ownership, the new owner may be required to obtain ERCs for any permit modifications with emissions increases. The new owner may obtain the ERCs from DOE or elsewhere. DOE may also transfer the ERCs as a part of the sale. If DOE transfers the ERCs to the new owner, the new owner would be required to submit an application to transfer ERC certificates at the completion of the sale.

**Change on page 3.3-4, paragraph 2, last two sentences to read:**

EPA revised the primary standards in July 1997 by adding a new annual PM<sub>2.5</sub> standard set at 15 microgram/m<sup>3</sup> and a new 24 hour PM<sub>2.5</sub> standard set at 65 microgram/m<sup>3</sup>. EPA will work with states to deploy the PM<sub>2.5</sub> monitoring networks to determine (1) which areas meet or do not meet the new air quality standards (2) what are the major sources of PM<sub>2.5</sub> in various regions, and (3) what action is needed to cleanup the air. states will have 3 years from the date of being designated nonattainment to develop pollution control plans and submit to EPA showing how they will meet the new standards. Areas will then have up to 10 years from their designation as non attainment to attain PM<sub>2.5</sub> standards with the possibility of two 1-year extensions.

### **3.3.2. Baseline Meteorology and Air Quality**

**Change page 3.3-5, paragraph 2, the first three sentences to read:**

Kern County is in nonattainment for ozone and fine dust (PM<sub>10</sub>) (see Table 3.3-1). In addition, the City of Bakersfield is in nonattainment of the Federal standard for carbon monoxide (CO).

**Revise Table 3.3-1 , Kern County Attainment Status, to reflect the following changes:**

- The attainment status for the state standard for Ozone is revised to read "Severe Nonattainment"
- The attainment status for the state standard for Carbon Monoxide is revised to read "Attainment".

**Delete on page 3.3-5, paragraph 2, sentence 3.**

**Delete on page 3.3-6, paragraph 1, sentence 7 the following:**

"including the Bakersfield nonattainment area."

### **3.4. WATER RESOURCES**

#### **3.4.1. Applicable Regulations**

**Change page 3.4-1, paragraph 3 to read:**

Under the provisions of the Clean Water Act, standards are also set to protect the nation's waters from polluted storm water discharges. The only water body on NPR-1 that has been classified as a navigable waterway, and thus falls under the provisions of the Clean Water Act, is Buena Vista Creek. NPR-1 is presently exempt from the NPDES storm water discharge permit requirements because there have been no reportable quantity spills into storm water and because storm water is basically non-existent at Elk Hills. As a best management practice, however, site personnel have been monitoring Buena Vista Creek and other drainages during storm events since 1992 to determine if any contaminated runoff occurs and if it contains an oily sheen. Existing procedures call for NPR-1 to submit a Notice of Intent to receive coverage under a general NPDES permit for storm water runoff within 30 days to the California Regional Water Quality Control Board, if a reportable quantity spill occurs into Buena Vista Creek. Other environmentally sensitive areas that have been designated since the establishment of NPR-1 include the Fern Fan Element of the Kern Water Bank located adjacent to the northeast flank of Elk Hills, and the Buena Vista Aquatic Recreation Area located two miles southwest of NPR-1 (BPOI et al. 1995).

**Insert the following paragraph after page 3.4-1, paragraph 3:**

The seasonal drainages present on NPR-1 are generally under the jurisdiction of the California Department of Fish and Game. Under the Fish and Game Code (section 1600 et seq.), the Department must be notified and streambed alteration agreements must be obtained for work in the bed banks or channels of lakes, ponds, rivers, or streams.

### **3.5. BIOLOGICAL RESOURCES**

**Insert the following after page 3.5-1 at the end of footnote 1:**

Species recognized as "special" by the state of California are those species listed in the California Natural Diversity Data Base or other similar California data bases listing plant and animals considered to be threatened, rare or sensitive under one or more criteria.

#### **3.5.1. Applicable Regulations**

##### ***3.5.1.2. California Endangered Species Act***

**Insert on page 3.5-2, paragraph 1, at the end of sentence 6:**

in Section 2080.

**Delete on page 3.5-2, the last two sentences from bullet 1.**

#### **3.5.3. Animal Communities on NPR-1**

**Change page 3.5-3, paragraph 4, sentence 6 to read:**

Both the western whip tail and side-blotched lizard occur on NPR-1, as well as several species of snakes and lizards.

#### **3.5.4. Threatened and Endangered Species on NPR-1**

#### ***3.5.4.2. Listed Plant Species and Plant Species of Concern on NPR-1***

##### **Listed Plant Species for which Suitable Habitat Exists on NPR-1**

Kern Mallow.

**Change page 3.5-8, paragraph 1, sentence 1 to read:**

Kern Mallow (*Eremalche parryi* ssp. *kernensis*) (Federally endangered, state special) is a small annual plant with mostly small white flowers.

#### ***3.5.4.3. Listed Animal Species and Animal Species of Concern on NPR-1***

##### **San Joaquin Kit Fox**

Status of the San Joaquin Kit Fox on NPR-1.

**Insert the following footnote after page 3.5-11, Table 3.5-3, the "BIRDS" heading:**

Raptors, while in some cases being designated as California species of special concern, are also protected under the California Fish and Game Code.

Potential Effects of NPR-1 Operations on San Joaquin Kit Fox.

**Replace the heading on page 3.5-15, paragraph 6 and delete the words "Potential" and "continued" to read:**

Past Effects of NPR-1 Operations on San Joaquin Kit Fox. Effects of oil field development and production under the Reference Case on NPR-1 have been previously discussed in detail (Martinson 1980; Kato and O'Farrell 1986; O'Farrell et al. 1986; Berry et al. 1987; Harris et al. 1987; Kobetich 1987; Scrivner et al. 1987a; Zoellick et al. 1987; DOE 1991; DOE SEIS 1993; Medlin 1995b).

##### **Blunt-nosed Leopard Lizard**

Potential Effects of NPR-1 Activities on Blunt-nosed Leopard Lizards.

**Replace the heading on page 3.5-17, paragraph 4 and delete the words "potential" and "continuing" to read:**

Past Effects of NPR-1 Activities on Blunt-nosed Leopard Lizards. Loss of habitat due to construction and operational activities was identified as the most significant impact on the blunt-nosed leopard lizard of MER development at NPR-1 (Kato and O'Farrell 1986).

##### **Giant Kangaroo Rat**

Potential Effects of NPR-1 Activities on Giant Kangaroo Rat.

**Replace the heading on page 3.5-20, paragraph 1 and delete the words "Potential" and "continuing" to read:**

Past Effects of NPR-1 Activities on Giant Kangaroo Rats. Impacts of NPR-1 operations on the giant kangaroo rat include loss of habitat, burial of burrows, being struck by vehicles, getting caught in an oil spill, exposure to contaminants, and fire (O'Farrell and Kato 1987).

##### **San Joaquin Antelope Squirrel**

Potential Effects of NPR-1 Activities on San Joaquin Antelope Squirrel.

**Replace the heading on page 3.5-22, paragraph 1 and delete the word "Potential" to read:**

Past Effects of NPR-1 Activities on San Joaquin Antelope Squirrel. Loss of habitat, displacement by California ground squirrels (usually found near human activity), mortality or injury from construction activities, vehicle impacts, and getting caught in oil spills or trapped in oil field facilities could adversely affect San Joaquin antelope squirrels at NPR-1. Effects of NPR-1 activities on this species have not been carefully studied, but based on results of site wide surveys conducted in 1984 and 1989, the decline in observations of this species do not appear to be related to petroleum production activities.

3.6 CULTURAL RESOURCES

3.6.3 Elk Hills Resources

3.6.3.2 Prehistoric Sites

**Change page 3.6-10, by deleting the last two sentences in paragraph 3 and adding the following paragraph:**

Twelve prehistoric archaeological sites at NPR-1 have been evaluated for NRHP eligibility and four have been determined by DOE to be potentially eligible for NRHP listing according to 36 CFR 60.4 (Criterion D): CA-KER-3082 and CA-KER-3085/H. SHPO concurred in this determination in August 1997. Results of a review of all sites and prehistoric resources recorded as of late 1996, with field testing of some in 1997, form the basis for recognition of an Elk Hills archaeological District that is eligible for the NRHP under criterion 36 CFR60.4(d), based on its potential to yield information important in prehistory.

3.6.3.4. Native American Concerns

**Insert the following as the first sentence on page 3.6-11, paragraph 3:**

In 1993, DOE completed a programmatic notification and summary in accordance with the NAGPRA agreement.

3.7. LAND USE

3.7.2.Naval Petroleum Reserve No.1

**Insert the following paragraph and table after page 3.7-2, paragraph 2:**

The site contains various geodetic control monuments of the National Geodetic Survey.

The following list of monuments in the general region of the longitude and latitude of NPR-1 was prepared from the Survey's web site a <http://www.ngs.noaa.gov>. Federal Agencies are required to contact the Survey prior to moving any such monuments.

**Geodetic Control Monuments within the Vicinity of NPR-1**

PID	Designation	Lat	Lon
FU1982	V 548	351239	1192412
FU1400	Y 326 UOCO	351259	1193354
FU1401	R 951	351300	1193353
FU2311	LAKE RM 3	351301	1192237
FU2312	LAKE RM 4	351301	1192237
FU2310	LAKE	351302	1192237

FU1980	U 548	351315	1192320
FU1402	1275 USGS	351321	1193414
FU1403	CDS	351324	1193417
FU2309	195 DWR	351326	1192232
FU1977	EH 11 DWR	351328	1192643
FU2303	S 548	351345	1192035
FU2308	T 548	351346	1192232
FU3243	J 1292	351352	1193447
FU2302	R 548	351358	1192048
FU2305	L 1098	351358	1192126
FU2297	192 DWR	351402	1192016
FU1976	EH 10 DWR	351403	1192642
FU1406	Z 326	351425	1193517
FU1975	EH 9 DWR	351442	1192725
FU1407	A 951	351444	1193538
FU1589	EH 8 DWR	351516	1192747
FU1588	EH 7 DWR	351605	1192758
FU3676	PUFF	351606	1192427
FU3679	PIPE MARK NEAR STA PUFF 1958	351606	1192427
FU3675	ELK 2	351611	1192519
FU3677	ELK	351612	1192519
FU3678	BFI 1334	351612	1192519
FU1587	EH 6 DWR	351635	1192804
FU1503	184 DWR	351711	1192009
FU3682	WEST ELK	351717	1193038
FU1586	EH 5 DWR	351722	1192751
FU1506	K 1098 K CO	351734	1192047
FU1514	183 A DWR	351747	1192101
FU1518	182 A DWR	351801	1192128
FU1517	183 DWR	351801	1192130
FU1525	182 DWR	351825	1192217

FU1571	181 DWR	351839	1192305
FU1576	180 A DWR	351906	1192338
FU1584	EH 3 DWR	351911	1192750
FU1568	Z 980	351929	1192335
FU1581	180 DWR	351934	1192443
FU1565	H 981	351950	1192442
FU1583	EH 2 DWR	351953	1192744
FU1558	179 DWR	351958	1192550
FU1582	EH 1 DWR	352020	1192755
FU1551	178 DWR	352022	1192649

**3.7.3. Adjacent Land Uses**

***3.7.3.1 Agriculture and Open Space***

**Insert the following after page 3.7-2, paragraph 6, sentence 1:**

Other major open areas include the 6,000 acre Coles Levee Ecosystem Preserve.

**3.7.3 Adjacent Land Uses**

***3.7.3.3 Water Banking***

**Change page 3.7-3, paragraph 1, sentences 2 and 3 to read:**

The Kern Water Bank Plan is part of the Kern Water Bank Authority and will be managed for water recharge and endangered species. The Bank is approximately 20,000 acres, which is located near the eastern border of NPR-1 and is the subject of an HCP application.

**3.11. ENERGY CONSERVATION**

**3.11.1 Applicable Regulations**

**Change page 3.11-1, paragraph 3 to read:**

The Conservation Committee of California Oil and Gas Producers (CCCOGP) is an industry-supported, tax exempt organization that was created in 1929 and that pursuant to state statute has administrated a voluntary hydrocarbon resource conservation program for the DOGGR since 1955. CCCOGP represents the oil and gas industry before the DOGGR on matters related to oil and gas conservation. Comprised of both majors and independents, membership accounts for over 80-percent of California production, excluding Elk Hills. It is funded by millage on production of large producers and by a fixed membership fee of \$60 per year for very small producers.

**Change page 3.11-1, paragraph 4, sentence 1 to read:**

The Committee's conservation efforts have been compared to the Texas Railroad Commission's production proration program with the significant exception that it is operated by the industry rather than the state.

**Change page 3.11-1, paragraph 4, sentence 4 to read:**



The Committee collects, prints, and distributes information on oil and gas operations in the state.





**8. LIST OF PREPARERS/CONTRIBUTORS**

**Remove Thom Kato's Name From the List of Preparers.**





## APPENDIX C. NPR-2 OPERATIONS, FACILITIES AND PRODUCTION

### Change page C.2-1, paragraph 1, sentence 1 to read:

Currently there are approximately 200 active wells, 225 abandoned or idle wells, 34 tank settings and six oil/water sumps on DOE lands within NPR-2.

### Change page C.2-1, paragraph 1, sentence 2 to read:

Continued production and development of known reserves at NPR-2 would require drilling and completing new production wells, commonly known as in fill wells.

### Change page C.2-1, paragraph 1, sentence 4 to read:

The additional production or in fill wells would require pipelines, pumps, storage tanks, and other permanent equipment.

### Change page C.2-1, paragraph 4, bullet 2 to read:

Workers are trained in emergency response procedures to protect human health and the environment.

### Change page C.2-2, paragraph 2, sentence 1 to read:

The private companies that conduct petroleum-related activities on DOE-owned NPR-2 lands include Chevron USA, Inc. Fred S. Holmes; Aera Energy; Oakland Petroleum Operating Company; Phillips Petroleum Company; Texaco, USA; UNOCAL Corporation; Vintage Petroleum Company; and numerous petroleum pipeline companies (see Figure 1.4.1).

### Change page C.2-2, paragraph 5 to read:

Aera Energy / Oakland Petroleum Operating Company. Aera has three leases totaling 280 acres (110 ha) in Section 32G. Aera has reassigned one of these leases totaling 80 acres (32 ha) to the Oakland Petroleum Operating Company and has not conducted operations on lands under the other two leases for over 30 years. Aera is considering reassigning the remaining two leases as well. Oakland is currently operating one tank setting and two stripper wells. The stripper wells produce eight barrels/d. The tank setting consists of one 500-barrel shipping tank, one 100-barrel produced water tank, one 500-barrel oil/ water separator, and one covered oil/water sump. Oakland generates approximately 9,000 barrels of produced water per year, which is disposed of by injection off-site.

### Delete page C.2-3, paragraph 5.

### Change page C.2-3, paragraph 2, sentence 3 to read:

Texaco operates approximately 124 oil and gas wells and produces approximately 447 barrels/d of oil, 6,857 MCF/d of gas, and 6,300 gallons/d of natural gas liquids.





## APPENDIX D. AIR RESOURCES

**Revise page D.2-3, Table D.2-1 to reflect the following changes:**

- change the 8 hour California standard for CO from 9 to 9.0 ppm;
- delete the duplicate listing of the one hour California standard for NO<sup>2</sup>;
- change the one hour California standard for NO<sub>2</sub> from 131 to 470µg/m<sup>3</sup> ;
- add the one hour California standard for SO<sub>2</sub> of 0.25ppm;
- add the 24 hour California standard for SO<sub>2</sub> in units of µg/m<sup>3</sup>of 105; and
- change the text describing the California standard for Visibility-reducing Particles from "Insufficient amount..." to "In sufficient amount..."

**Revise page D.2-4, Table D.2-3, Kern County Attainment Status, to reflect the following changes:**

- The attainment status for the state standard for Ozone is revised to read "Severe Nonattainment"
- The attainment status for the state standard for Carbon Monoxide is revised to read "Attainment".

**Change page D.2-10, paragraph 2 to read:**

Of the four monitoring stations in Kern County where samplers were in operation throughout the year, only the Bakersfield Golden state Highway site measured an exceedance of the annual NAAQS for PM<sub>10</sub> (60ug/m<sup>3</sup>as an arithmetic mean) in 1995. All four stations with PM<sub>10</sub>monitoring, however, exceeded the California standard (50 ug/m<sup>3</sup>) while the federal 24-hour standard (150 ug/m<sup>3</sup>) was exceeded at only one station (Oildale). These data show that PM<sub>10</sub> emissions continue to be a major air pollution problem in the county (DOE 1993).

**Delete page D.2-11, paragraph 1, sentence 5.**





# CHAPTER FIVE

## List of Agencies, Organizations, and Persons Receiving the Final SEIS/PEIR

### FEDERAL OFFICIALS

The Honorable Herbert Bateman Chairman, Subcommittee on Military Readiness Committee on National Security U.S. House of Representatives Washington, DC 20515	The Honorable Thomas J. Bliley, Jr. Chairman, Committee on Commerce U.S. House of Representatives Washington, DC 20515
The Honorable Barbara Boxer United States Senate Washington,DC 20510	The Honorable Dale Bumpers Ranking Minority Member Committee on Energy and Natural Resources United States Senate Washington, DC 20510
The Honorable Robert C. Byrd Ranking Minority Member Subcommittee on Interior and Related Agencies Committee on Appropriations United States Senate Washington, DC 20510	The Honorable Ronald V. Dellums Ranking Minority Member Committee on National Security U.S. House of Representatives Washington, DC 20515
The Honorable Robert L. Livingston Chairman, Committee on Appropriations U.S. House of Representatives Washington, DC 20515	The Honorable Calvin Dooley U.S. House of Representatives Washington,DC 20515
The Honorable Dianne Feinstein United States Senate Washington, DC 20510	The Honorable Slade Gorton Chairman, Subcommittee on Interior and Related Agencies Committee on Appropriations United States Senate Washington, DC 20510
The Honorable Ralph Hall Ranking Minority Member Subcommittee on Energy and Power Committee on Commerce U.S. House of Representatives Washington, DC 20515	The Honorable James Inhof Chairman, Subcommittee on Readiness Committee on Armed Services United States Senate Washington, DC 20510
The Honorable Carl Levin Ranking Minority Member Committee on Armed Services United States Senate Washington, DC 20510	The Honorable Frank H. Murkowski Chairman, Committee on Energy and Natural Resources United States Senate Washington, DC 20510

<p>The Honorable David R. Obey Ranking Minority Member Committee on Appropriations U.S. House of Representatives Washington, DC 20515</p>	<p>The Honorable Norman Sisisky Ranking Minority Member Subcommittee on Military Readiness Committee on National Security U.S. House of Representatives Washington, DC 20515</p>
<p>The Honorable Ted Stevens Chairman, Committee on Appropriations United States Senate Washington, DC 20510</p>	<p>The Honorable Ralph Regula Chairman, Subcommittee on Interior and Related Agencies Committee on Appropriations U.S. House of Representatives Washington, DC 20515</p>
<p>The Honorable Strom Thurmond Chairman, Committee on Armed Services United States Senate Washington, DC 20510</p>	<p>The Honorable William M. Thomas U.S. House of Representatives Washington, DC 20515</p>
<p>The Honorable Charles Robb Ranking Minority Member Subcommittee on Readiness Committee on Armed Services United States Senate Washington, DC 20510</p>	<p>The Honorable Dan Schaefer Chairman, Subcommittee on Energy and Power Committee on Commerce U.S. House of Representatives Washington, DC 20515</p>
<p>The Honorable Floyd Spence Chairman, Committee on Natl.</p>	<p>Security U.S. House of Representatives Washington, DC 20515</p>
<p>The Honorable John D. Dingell Ranking Minority Member Committee on Commerce United States Senate Washington DC 20510</p>	<p>The Honorable Sidney R. Yates Ranking Minority Member Subcommittee on Interior and Related Agencies Committee on Appropriations U.S. House of Representatives Washington, DC 20515</p>





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## List of Agencies, Organizations, and Persons Receiving the Final SEIS/PEIR

### CALIFORNIA STATE, COUNTY, AND LOCAL OFFICIALS

The Honorable Roy Ashburn, Chairman Supervisor, St. District Kern County Board of Supervisors 1115 Truxtun Avenue Bakersfield,CA 93301	The Honorable Wm. J. "Pete" Knight Senator, 17th District Room 2068, State Capitol Sacramento, CA 95814
The Honorable Pete Wilson Governor, State of California State Capitol, 1st Floor Sacramento, CA 95814	The Honorable Ken Knost Mayor of the City of Taft 209 East Kern Street Taft, CA 93268
The Honorable Pauline F. Larwood Supervisor, 3rd District Kern County Board of Supervisors 1115 Truxtun Ave., 5th Floor, Rm. 503 Bakersfield,CA 93301	The Honorable Bob Price Mayor of the City of Bakersfield 1501Truxtun Avenue Bakersfield, CA 93301
The Honorable Ken Maddy Senator, 14th District State Capitol, Room 305 Sacramento, CA 95814	The Honorable Jon McQuiston Supervisor, 1st District Kern County Board of Supervisors 1115 Truxtun Ave., 5th Floor Bakersfield, CA 93301
The Honorable Ken Peterson Supervisor, 4th District Kern County Board of Supervisors 1115 Truxtun Avenue Bakersfield, CA 93301	The Honorable Keith Olberg 34th Assembly District State Capitol, Room 4102 Sacramento, CA 95814 The Honorable Pete Parra Supervisor, 5th District Kern County Board of Supervisors 1115 Truxtun Ave., 5th Floor Bakersfield, CA 93301
The Honorable Barbara Patrick Supervisor, 3rd District Kern County Board of Supervisors 1115 Truxtun Ave., 5th Floor Bakersfield, CA 93301	The Honorable Robert Prenter 30th Assembly District 230 Truxtun Avenue Bakersfield, CA 93301
The Honorable Mary K. Shell Supervisor, 5th District Kern County Board of Supervisors 1115 Truxtun Ave., 5th Floor, Suite 505 Bakersfield, CA 93301	The Honorable Steve Perez Supervisor, 2nd District Kern County Board of Supervisors. 1115 Truxtun Ave., 5th Floor Bakersfield, CA 93301







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**List of Agencies, Organizations, and Persons Receiving the Final**  
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**FEDERAL AGENCIES**

<p>Mr. William Abel U.S. Department of Agriculture Bakersfield Work Station PPQO Minter Field Airport 5100 Douglas Avenue Shafter,CA 93263</p>	<p>Mr. James Abbott, Area Manager Bakersfield District U.S.Department of Interior Bureau of Land Management 3801 Pegasus Drive Bakersfield, CA 93308-6837</p>
<p>Ms. Margo Anderson, Director Natural Resources &amp; Environment Div. U.S. Department of Agriculture Economic Research Service 1301 New York Avenue, NW, Room 524 Washington, DC 20005</p>	<p>Ms. Heather Bell, Director Office of Environmental Affairs U.S. Department of Interior Fish &amp; Wildlife Service 3310 El Camino Avenue, Suite 130 Sacramento, CA 95821-6340</p>
<p>Mr. Ron Fellows, District Manager U.S. Department of the Interior Bureau of Land Management 3801 Pegasus Drive Bakersfield,CA 93308-6837</p>	<p>Mr. William A. Archambault Office of Policy and Strategic Planning National Oceanic and Atmospheric Adm. U. S. Department of Commerce Room 5805 14th St. &amp; Constitution Ave., NW, Washington,DC 20230</p>
<p>Mr. Jim Haas U. S. Department of Interior Fish &amp; Wildlife Service 3310 El Camino Avenue, Suite 130 Sacramento, CA95821-6340</p>	<p>Dr. D. Eng Acting Chief Environmental Resources U.S.Army Corps of Engineers Sacramento District Office of Environmental Overview 1325 J Street Sacramento, CA 95814-2922</p>
<p>Mr. Nick Arndt U. S. Department of the Interior Bureau of Reclamation So. Central California Office 2666 N. Grove Industrial Drive, Suite 106 Fresno, CA 93727-1551</p>	<p>Mr. Carl Bausch, Deputy Director Environmental Analysis &amp; Documentation Biotechnology, Biology and Environmental Protection Agency U.S. Department of Agriculture 4700 River Road, Unit 149 Riverdale, MD 20737</p>
<p>Ms. Andree DuVarney U. S. Department of Agriculture Natural Resources Conservation Service P. O. Box 2890, Room 6159 Washington, DC 20013</p>	<p>Mr. Peter Cross U. S. Department of Interior Fish &amp; Wildlife Service 3310 El Camino Avenue, Suite 130 Sacramento, CA 95821-6340</p>

Mr. Peter Miller, Energy Program Natural Resources Defense Council, Inc. 71 Stevenson Street, Suite 1825 San Francisco, CA 94105	Mr. Robert Fairweather, Chief Environmental Branch U.S. Office of Management and Budget 725 17th Street, NW, Room 8026-NEOB Washington,DC 20503
Mr. David Farrell, Chief U. S. Environmental Protection Agency 75 Hawthorne Street, Region 9 San Francisco, CA 94105-3901	Mr. Robert Jorgensen, District Supv. U.S. Department of Agriculture Animal Damage Control Division 213 Livestock Exchange/29th & O Street Omaha, NB 68107
Mr. Daniel Lashof, Senior Scientist Natural Resources Defense Council, Inc. 1200 New York Ave., NW, Suite 400 Washington, DC 20005	Mr. Joel Medlin, Field Representative U. S. Department of Interior Fish & Wildlife Service Division of Ecological Services 3310 El Camino Avenue, Suite 130 Sacramento, CA 95821-6340
U.S. Army Corps of Engineers Sacramento District 650 Capitol Mall, Room 6071 Sacramento, CA 95814	Ms. Camille Mittelholtz, Chief Headquarters Environmental Division U. S. Department of Transportation 400 7th Street, SW, Room 9217 Washington, DC 20590-0001
Dr. Frank Monteferrante, Senior Environmental Specialist U.S. Department of Commerce Herbert Hoover Building, Room 2019 14th and Constitution Avenue, NW Washington, DC 20230	Ms. Patricia Sanderson Port Regional Environmental Officer U.S.Department of the Interior Environmental Policy & Compliance 600 Harrison Street, Suite 515 San Francisco, CA 94107-1376
Ms. Susan B. Fruchter Acting NEPA Coordinator U.S.Department of Commerce Office of the Under Secretary for Oceans and Atmosphere Washington, DC 20230	Mr. Jim Regal, Soil Scientist U.S. Department of Agriculture Soil Conservation Service 1601 New Stine Road, Suite 270 Bakersfield,CA 93309-3698
Mr. Richard Sanderson, Director U. S. Environmental Protection Agency Office of Federal Activities 1200 Pennsylvania Avenue, NW Washington, DC 20044	Mr. Willie R. Taylor, Director U. S. Department of Interior Office of Environmental Policy & Compliance 1849 C Street, NW Room 2340 Washington, DC 20240
Mr. Doug Siglin, Acting Director of Government and Community Relations The Nature Conservancy 1815 N. Lynn Street, Suite 400 Arlington, VA 22209	





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## List of Agencies, Organizations, and Persons Receiving the Final SEIS/PEIR

### CALIFORNIA STATE OFFICES

Ms. Barbara Fry California Air Resources Board 2020 L Street Sacramento, CA 95814	Southern San Joaquin Valley Archaeological Inventory Center California State University 9001 Stockdale Highway Bakersfield,CA 93309
California State University Bakersfield Library 9001Stockdale Highway Bakersfield, CA 93309	Cal Trans District 6 P.O. Box 12616 Fresno, CA 93778
Cal Trans District 9 500 South Main Street Bishop, CA93514 Mr. Terry Rivasplata, Chief	California Department of Conservation Office of Mine Reclamation 801 K Street, MS 09-06 Sacramento, CA 95814-3529
Mr. Gary Yee Air Resources BD 2020 L Street Sacramento,CA 95812	California Department of Conservation Division of Oil, Gas and Geothermal Resources 801 K Street - MS 20-20 Sacramento, CA 95814-3530
California Department of Conservation Office of Mine Reclamation 801 K Street - MS 09-06 Sacramento, CA 95814-3530	Mr. Charles R. Imbrect, Chairmen California Energy Commission 1516 Ninth Street, Room 200 Sacramento, CA 95814
Ms. Nancy Deller, Chief California Energy Commission Energy Technology Development Division 1516 Ninth Street Sacramento, CA 95814	Mr. Robert L. Therkelsen California Energy Commission Facilities Siting/Environmental Div. 1516 Ninth Street Sacramento, CA 95814
Ms. Linda Spiegel California Energy Commission 1516 Ninth Street Sacramento, CA 95814	Mr. James M. Strock, Secretary Cal. Environmental Protection Agency 555 Capitol Mall, Suite 235 Sacramento, CA 95814
Mr. John D. Dunlap, III, Chairman Cal. Environmental Protection Agency Air Resources Board 2020 L Street Sacramento, CA95814	Mr. David Mitchell California Department of Conservation Division of Oil, Gas and Geothermal Resources 4800 Stockdale Highway, Suite 417 Bakersfield, CA 93309
Mr. Peter Venturini Cal. Environmental Protection Agency	Mr. Jesse Huff, Director Cal. Environmental Protection Agency

Stationary Source Division P.O. Box 2815 Sacramento, CA 95812	Toxic Substance Control Department P.O. Box 806 Sacramento,CA 95812-0806
Mr. Robert Treanor, Executive Director California Fish & Game Commission P.O. Box 944209 Sacramento, CA 94244-2090	Dr. Jeff Single California Department of Fish and Game 1234 East Shaw Avenue Fresno, CA 93710
Mr. Chuck Raysbrook, Director California Department of Fish and Game 1416 Ninth Street Sacramento, CA 95814	Mr. Ron Schlorff California Department of Fish and Game 1416 Ninth Street Sacramento, CA 95814
Mr. Rodney A. Clark Associate Entomologist Curly Top Virus Control Project California Dept. of Food and Agriculture 2895 N.Larkin Ave., Suite A Fresno, CA 93727	Mr. Charles MacDonald Deputy State Fire Marshall California Fire Marshal's Office 4800 Stockdale Highway, Suite 205 Bakersfield, CA93309
Mr. Al Aramburu, Director Conservation Corps. California Resources Agency 1530 Capitol Avenue Sacramento, CA 95814	California Highway Patrol 4040 Pierce Road Bakersfield,CA 93308
Mr. Charles T. Samo Pipeline Safety Engineer California Fire Marshal's Office 1501 W. Cameron Ave. South Building, Suite C-250 West Covina, CA 91790	Mr. Richard Wilson, Director California Forestry & Fire Protection P.O. Box 944246 Sacramento, CA 95814
Mr. Dean Cromwell, Executive Officer California Forestry Board 1416 Ninth Street, Rm. 1506-14 Sacramento, CA 95814	Ms. Anne DeBevec State Military Department Office of Adjutant General 9800 Goethe Road Sacramento, CA 95826-9101
Mr. Hal Bopp, Deputy Supervisor California Department of Conservation Division of Oil & Gas and Geothermal Resources,District 4 4800 Stockdale Highway, Suite 417 Bakersfield, CA 93309	Mr. John J. Adams, Jr., Chief Land Disposal Section State Water Resources Control Board 2014 T Street, Suite 130 Sacramento, CA 94244-2100
Ms. Cherilyn Widdel California Office of Historical Preservation P.O. Box 942896 Sacramento, CA 94296-0001	Mr. Vince Paul California Integrated Waste Management 8800 Cal Center Drive Sacramento, CA 95826
Mr. Bob Penny California Public Utilities Commission 350 McAllister St, Room 3230 San Francisco, CA 94102	Mr. John J. Adams, Jr. California Regional Water Quality Control Board/Central Valley Region 3614 East Ashlan Avenue Fresno, CA 93726

State Lands Commission 100 Howe Avenue, Suite 100 BS Sacramento, CA 95826	California Dept. of Water Resources San Joaquin District 3374 East Shields Avenue, Room A-7 Fresno, CA 93726
Mr. Gary Reinoehl Office of Historic Preservation California Dept. of Water Resources P.O. Box 942836 Sacramento, CA 95814	Mr. B. B. Blevins, Director California Resources Agency 801 K Street Sacramento, CA 95814
Raymond E. Barsch, Exec. Officer California Water Commission 1416 Ninth Street, Room 1148 Sacramento, CA 95814	California Reclamation Board 1416 Ninth Street, Room 706 Sacramento,CA 95814
Ms. Delores Brown Department of Water Resources 1416 Ninth Street Sacramento, CA 95814 Dr. Jack Erickson, Chief Div. of Planning California Dept. of Water Resources 1416 Ninth Street, Room252-22 Sacramento, CA 95814	Mr. David N. Kennedy P.O. Box 942896 Sacramento CA942960001 Mr. John Caffey, Chairman California Dept. of Water Resources P.O. Box 100 Sacramento, CA 95812-0100
California Department of Health Services 5545 East Shields Avenue Fresno, CA 93727	California Office of Planning & Research State Clearinghouse 1400 Tenth Street, Room 121 Sacramento, CA 95814





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## List of Agencies, Organizations, and Persons Receiving the Final SEIS/PEIR

### KERN COUNTY AGENCIES

*For Kern County Departments listed below, use the following address unless otherwise noted*

*Kern County (Department)  
2700 Main Street  
Bakersfield, CA 93301*

Kern County Airports	Kern County Air Pollution Control District
Kern County Administrative Officer Fiscal Analysis	Kern Co. Engineering and Survey Svcs/ Flood plain
Kern Co. Environmental Health Services	Kern County Library/Administration
Kern County Library	Beale Branch Public Review Copy
Kern Co. Engineering & Survey Services	Kern County Planning/Special Projects
Kern Co. Resource Management Agency/Fiscal	Kern County Waste Mgmt. Department Special Districts
Kern County Library Taft Branch 27 Emmons Park Drive Taft, CA 93268-2317	Kern County Parks and Recreation
Kern County Museum	Kern Co. Roads Dept./Transit
Kern Co. Sheriff's Department Fiscal Analysis	Kern County Roads Department
Kern County Clerk of the Board of Supervisors 1115 Truxtun Avenue, 5th Fl. Bakersfield, CA 93301	Mr. David Crow, Director San Joaquin Valley Unified APCD 1999 Tuolumne Street, Suite 200 Fresno, CA 93721
Kern County Waste Management Dept. Solid Waste	Kern Co. Waste Management Dept. Liquid Waste
Taft Elementary School District 820 N. 6th Street Taft, CA 93268	Mr. Raymond C. Bishop Director of Airports Department of Airports 1401 Skyway Drive, Suite 200 Bakersfield, CA 93308-1697
Mr. Gary G. Frank, Battalion Chief Kern County Fire Department	Dr. B. A. Jinadu Kern County Health Dept.

5642 Victor Street Bakersfield, CA 93308	1700 Flower Street Bakersfield, CA 93305
Kern Co. Superintendent of Schools 1300 17th Street Bakersfield, CA 93301	Mr. Tom Clark, General Manager Kern County Water Agency 3200 Rio Mirada Drive Bakersfield, CA 93308 B0058
Mr. J.R. Manuel Native American Heritage Preservation Council of Kern County P.O. Box 1507 Bakersfield CA 93302	Kern COG 1401 - 19th St., Suite 300 Bakersfield, CA93301
Kern Economic Develop. Corp. 2700 M Street, Suite 225 Bakersfield, CA 93301	Ms. Carola Rupert Enriquez Kern County Museum 3801 Chester Avenue Bakersfield, CA 93301 Kern County Local Agency Formation Commission 2700 M Street, Suite 290 Bakersfield, CA 93301
Mr. Jerry Pearson Director of Operations West Kern Water District P.O. Box MM Taft, CA 93268-0024	Ms. Martin Milobar, Manager Buena Vista Water Storage District P.O. Box 756 Buttonwillow, CA 93206
Golden Empire Transit 1830 Golden State Avenue Bakersfield, CA 93301	Mr. Joe O'Bannon San Joaquin Valley Unified APCD 2700 M Street, Suite 275 Bakersfield, CA 93301
Mr. C. H. Williams Kern River Watermaster P.O. Box 81435 Bakersfield, CA 93380-1435	Kern Co. Agriculture Department





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## List of Agencies, Organizations, and Persons Receiving the Final SEIS/PEIR

### KERN COUNTY CITIES AND SURROUNDING COUNTIES

City of Arvin P.O. Box 548 Arvin, CA 93203	City of Bakersfield Planning Department 1715 Chester Avenue Bakersfield, CA 93301
California City Planning 21000 Hacienda Boulevard California City, CA 93515	City of Delano P.O. Box 939 Delano, CA 93216
City of Maricopa P.O. Box 548 Maricopa, CA 93252	City of McFarland P.O. Box 1488 McFarland,CA 93250
City of Ridgecrest 100 West California Avenue Ridgecrest, CA 93555	City of Shafter 336 Pacific Avenue Shafter, CA 93263
City of Taft Planning and Building 209 East Kern Street Taft, CA 93268	City of Tehachapi P.O. Bin 668 Tehachapi,CA 93561
City of Wasco P.O. Box 159 Wasco, CA 93280	Inyo County Planning Dept. P.O. Drawer L Independence, CA 93526
Kings County Planning Agency Kings Co. Government Bldg. #6 1400 West Lacey Boulevard Hanford, CA 93230	Los Angeles County Dept. of Regional Planning 320 West Temple Street, Room 1390 Los Angeles, CA 90012
San Bernardino County Office of Planning 385North Arrowhead Ave. 3rd Floor San Bernardino, CA 92415	San Luis Obispo County Planning and Building Department County Government Center San Luis Obispo, CA 93408
Mr. Alan Kornicks, VP Crude Oil Supply Kern Oil & Refining Co. 180 E. Ocean Boulevard, Suite 910 Long Beach, CA90802	Santa Barbara County Resource Management Department 123 East Anapamu Street Santa Barbara, CA 93408
Tulare County Planning & Development Dept. County Civic Center, Room 105-111 Visalia, CA 93291-4503	







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## List of Agencies, Organizations, and Persons Receiving the Final SEIS/PEIR

### NON-GOVERNMENTAL ORGANIZATIONS

Mr. Jesse Grantham National Audubon Society Western Regional Activities Office 555 Audubon Place Sacramento, CA 95825-4866	Ms. Mary J. Griffin National Audubon Society Kern Chapter 1604 Duke Drive Bakersfield, CA 93305
American Farmland Trust 1002 W Main Street Visalia, CA 93291-5920	Mr. Daniel Taylor, Executive Director California Field Office National Audubon Society 555 Audubon Place Sacramento, CA 95825-4866
Mr. Robert Gomez Native American Heritage Council of Kern County 2619 Driller Avenue Bakersfield, CA 93306	Mr. Tom Donnelly Executive Vice President National Water Resources Association 3800 N. Fairfax Drive, Suite 4 Arlington, VA22203
Mr. Brian Costner Energy Research Foundation 537 Harden Street Columbia, SC 29205	Mr. Arthur Unger The Sierra Club/Kern Kaweah Chapter 2815 La Cresta Drive Bakersfield, CA 93305
Ms. Barbara Boyle, Regional Director The Sierra Club 923 12th Street, Suite 200 Sacramento, CA 95814-2923	Mr. Brent Scott Associate Representative The Sierra Club 3345 Wilshire Blvd., Suite 508 Los Angeles, CA 90010
Ms. Jan Scow Land Management Analyst California Native Plant Society 1722 J Street, Suite 17 Sacramento, CA 95814	Mr. Ron Wermuth, Chairman Kern Valley Indian Council P.O. Box 168 Kernville, CA 93238
Greater Bakersfield Chamber of Commerce 1033 Truxton Avenue P.O. Box 1947 Bakersfield, CA 93303	Ms. Ann Gutcher, Manager Kern County Board of Trade P.O. Box 1312 Bakersfield, CA 93302
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Mr. Floyd J. Frenko, Jr., Chairperson Tule River Tribal Council P.O. Box 589 Porterville, CA 93258	Mr. Leonard Manuel, Jr. Native American Cultural Specialist Route 7, Box 251 Porterville, CA 93257
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Mr. David S. Wilcove, Ph.D. Senior Ecologist Environmental Defense Fund, Inc. 1875 Connecticut Avenue, NW Washington, D.C. 20009	Mr. Michael J. Bean Environmental Defense Fund, Inc. 1875 Connecticut Avenue, NW Washington, D.C. 20009
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Mr. Larry Myers, Executive Secretary Native American Heritage Commission 915 Capitol Mall, Room 364 Sacramento, CA 95814	Mr. James Leon, Vice Chairman Chumash Council of Bakersfield P. O. Box 902 Bakersfield, CA 93302





# CHAPTER FIVE

## List of Agencies, Organizations, and Persons Receiving the Final SEIS/PEIR

### PRIVATE INTERESTS

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Mr. Robert P. Will Domestic Petroleum Council 101518th Street, NW, Suite 600 Washington, DC 20036	Mr. Brent Winn Environmental Affairs Manager Berry Petroleum P.O. Bin X Taft, CA 93268
Mr. Joe Hahn Senior Environmental Specialist Atlantic Richfield Company P.O. Box 147 Bakersfield, CA 93302	Mr. K. David Bone, DNPRC DOE BPOI OPS/CRCACCT 28590 HWY 119 P.O. Box 127 Tupman, CA 93276
Mr. George Gough BPOI P.O. Box 127 Tupman,CA 93276	Mr. Bill Dixon BPOI P.O. Box 127 Tupman,CA 93276
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Ms. Carnie R. Block Chevron U.S.A.	Mr. Pete Boyce California Independent

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Ms. Sharlene Lopez Graystone Development Consultants 5990 Greenwood Plaza Blvd., Suite 250 Inglewood, CO 80111	Mr. C. Ed Hall, V.P. Public Affairs Santa Fe Energy Res., Inc. 1616 S. Voss, Suite1000 Houston, TX 77057
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## List of Agencies, Organizations, and Persons Receiving the Final SEIS/PEIR

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Mr. Tom Bukoski BDM-Oklahoma/NIPER P.O.Box 2565 Bartlesville, OK 74005	Mr. Dave Dougall AGIP Petroleum 2950 North Loop W. Houston, TX 77092
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## List of Agencies, Organizations, and Persons Receiving the Final SEIS/PEIR

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# Appendix

- [Department of the Interior: Office of the Solicitor](#)
- [Department of the Interior: Fish and Wildlife Service](#)
- [Department of Energy: Naval Petroleum Reserves in California](#)