



**Lisa Norby**

06/04/02 03:53 PM  
MDT

To: Ken McMullen/PAIS/NPS@NPS, Arlene Wimer/PAIS/NPS, Darrell  
Echols/PAIS/NPS@NPS, Linda Dansby  
cc: Jock Whitworth/PAIS/NPS@NPS  
Subject: Revised Chapter 1 - Lemon/Lemonseed Chapter 1

Good afternoon,

I am sending you the revised Chapter 1 for the Lemon/Lemonseed EA. Linda, Eddie, and I have incorporated all of the changes that were listed on the substantive comments table that was sent to you last week. All of the changes are shown in redline and strikeout for your review. Carol McCoy will be reviewing the impairment text to make sure that it conforms with the current NPS direction on impairment. If there are any changes to that text, she will let you know.

Please let us know what else we can do to help you get the EA completed by the 17th,

take care,

Lisa Norby



Lemon EA revised P&N.dc

National Park Service - Geologic Resources Division  
Mineral Operations Branch  
7333 West Jefferson Avenue, Suite 480  
Lakewood, CO 80235

email: [lisa\\_norby@nps.gov](mailto:lisa_norby@nps.gov)  
<http://www.nature.nps.gov/grd>

phone - 303-969-2318  
FAX - 303-987-6792

Mailing Address:  
WASO-GRD  
12795 West Alameda Parkway  
Lakewood, CO 80228

## 1.0. PURPOSE AND NEED

This Environmental Assessment (EA) evaluates two alternatives for the National Park Service (NPS) to permit BNP Petroleum Corporation (BNP) to drill and produce the Lemon/Lemon Seed Unit Wells (Nos. 1-1000S and 1-1008S) within Padre Island National Seashore. The purpose of this analysis is to provide a decision-making framework for the NPS to approve the use of parklands for BNP to explore and develop its mineral rights, while protecting and preventing impairment to park resources and values, and allowing for a safe visitor experience; and to determine whether an Environmental Impact Statement (EIS) should be prepared.

When Congress authorized the establishment of Padre Island National Seashore on September 28, 1962 (16 U.S.C. §459d, *et seq.*), surface ownership within the area was acquired by the U.S. Government. Private entities or the State of Texas retained the subsurface mineral interests on these lands. Thus, the federal government does not own any of the subsurface oil and gas rights in the park, yet the NPS is required by its laws, policies and regulations to protect the park from any actions, including oil and gas operations, that may adversely impact or impair park resources and values. Padre Island National Seashore was created "in order to save and preserve, for purposes of public recreation, benefit, and inspiration, a portion of the diminishing seashore of the United States that remains undeveloped ...". Currently, there are 14 nonfederal oil and gas operations within the park. The park comprises 130,473 acres.

On November 26, 2001, BNP submitted to Padre Island National Seashore a Plan of Operations to drill and produce the Lemon/Lemon Seed Unit. The NPS reviewed and determined the plan to be substantially complete December 13, 2001. BNP has revised the Plan of Operations to include all NPS recommendations. The NPS must decide whether to approve the plan and if additional mitigation measures are needed.

The analysis area for this EA includes the area within the park that would be directly or indirectly affected by the operations. The analysis area for evaluating cumulative impacts on park resources and values includes the entire park, and for nonfederal oil and gas includes the nation's domestic energy supply. Figure 1 depicts the analysis area.

### 1.1. Objectives of Taking Action

There are three objectives for this project:

- Provide BNP Petroleum Corporation, as holder of nonfederal oil and gas mineral interests, reasonable access for exploration and development.
- Avoid or minimize impacts on park resources and values, visitor use and experience, and human health and safety.
- Prevent impairment of park resources and values.

### 1.2. Special Mandates and Direction

The NPS evaluates project-specific proposals for oil and gas production and transportation on a case-by-case basis by applying a variety of Current Legal and Policy Requirements prior to issuing a permit under the general regulatory framework of the NPS Nonfederal Oil and Gas Rights Regulations (36 CFR 9B). The following discussion is a summary of the basic management direction the NPS follows for permitting nonfederal oil and gas operations in units of the National Park System.

**Figure 1. Map of the Analysis Area.**

**1.2.1. NPS Organic Act and General Authorities Act - Prevention of Impairment**  
**Note to Carol:** I've inserted the text from the earlier LAMR/ALFL O&GMP that I sent to you this am

The NPS Organic Act (16 U.S.C. § 1, *et seq.*) provides the fundamental management direction for all units of the National Park System. Section 1 of the Organic Act states, in part, that the NPS shall:

"...promote and regulate the use of the Federal areas known as national parks, monuments, and reservations...by such means and measure as conform to the fundamental purpose of said parks, monuments and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." 16 U.S.C. §1.

The National Park System General Authorities Act, (16 U.S.C. § 1a-1 *et seq.*) affirms that while all national park system units remain "distinct in character," they are "united through their interrelated purposes and resources into one national park system as cumulative expressions of a single national heritage." The Act makes it clear that the NPS Organic Act and other protective mandates apply equally to all units of the system. Further, the Redwood Act Amendments to the General Authorities Act clarified Congress' mandate to the NPS to protect park resources and values. The Amendments state, in part: "[t]he authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress." 16 U.S.C. § 1a-1.

Current laws and policies require the analysis of potential effects to determine whether or not actions would impair park resources. While Congress has given the NPS the managerial discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement (enforceable by the federal courts) that the NPS must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise (2001 Management Policies, §1.4).

The impairment that is prohibited by the Organic Act and the General Authorities Act is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. Whether an impact meets this definition depends on the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts.

The NPS Organic Act and the General Authorities Act prohibit an impairment of park resources. The NPS Management Policies state that an impact would be more likely to constitute an impairment to the extent it affects a resource or value whose conservation is: 1) necessary to fulfill a specific purpose identified in the establishing legislation or proclamation of the park; 2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or 3) identified as a goal in the park's general management plan or other relevant NPS planning documents.

Impairment is an impact that, in the professional judgement of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. An impact would be less likely to constitute an impairment to the extent that it is an unavoidable result, which cannot be reasonably further mitigated, of an action necessary to preserve or restore the integrity of park resources or values.

NPS Management Policies use the terms "resources and values" to mean the full spectrum of tangible and intangible attributes for which the parks are established and are being managed, including the Organic Act's fundamental purposes (as supplemented), and any additional purposes

as stated in a park's establishing legislation. Park resources and values that are subject to the no impairment standard include: the biological and physical processes which created the park and that continue to act upon it; scenic features; natural visibility; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structures and objects; museum collections; and native plants and animals.

The NPS also includes the park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system among the values that are subject to the no impairment standard. Finally, unless the activity is required by statute, NPS cannot allow an activity in a park if it would involve or result in:

- 1) inconsistency with the park's enabling legislation or proclamation, or derogation of the values or purposes for which the park was established;
- 2) unacceptable impacts on visitor enjoyment due to interference or conflict with other visitor use activities;
- 3) consumptive use of park resources;
- 4) unacceptable impacts on park resources or natural processes; and
- 5) unacceptable levels of danger to the welfare or safety of the public.

For these reasons, the Environmental Consequences section of this EA provides an analysis of the potential of each alternative to leave park resources and values unimpaired for each of the resource topics covered in the EA.

#### **1.2.2. NPS Nonfederal Oil and Gas Regulations, 36 CFR 9B**

The authority to manage and protect federal property arises from the Property Clause of the United States Constitution. The Property Clause provides that "Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States . . ." U.S. Const. Art. IV, ¶ 3, cl. 2.

In 1916, Congress exercised its power under the Property Clause and passed the NPS Organic Act, 16 U.S.C. § 1 *et seq.* Section 3 of the Organic Act authorizes the Secretary of the Interior to "make and publish such rules and regulations as he may deem necessary or proper for the use of the parks..." 16 U.S.C. § 3.

Pursuant to section 3 of the NPS Organic Act and individual park statutes, the Secretary of the Interior promulgated regulations at 36 CFR Part 9, Subpart B ("9B regulations") in 1979. The 9B regulations apply to operations that require access on or through federally owned or controlled lands or waters in connection with nonfederally owned oil and gas in all National Park System units (36 CFR § 9.30(a)).

The NPS Nonfederal Oil and Gas Rights Regulations (36 CFR 9B) and other regulatory requirements assist park managers in managing oil and gas activities so they may be conducted in a manner consistent with the NPS mandate to protect park resources and values. The application and implementation of these regulations on the ground must be assessed park wide for each site-specific oil and gas activity to determine if these activities have the potential to impair park resources and values.

#### **1.2.3 NPS oversight and Monitoring of Nonfederal Oil and Gas Operations**

Under 36 CFR §9.37(f) "[a]pproval of each plan of operations is expressly conditioned upon the Superintendent having such reasonable access to the site as is necessary to properly monitor and insure compliance with the plan of operations." At Padre Island N.S., park staff patrols the beach

every day during turtle nesting season, and visits certain oil and gas sites several times a week. Park resource managers conduct a monitoring oversight patrol at least two times per week. In the event of an accident or spill, BNP will notify its dispatch immediately, and BNP's dispatch will then immediately notify park resource managers. All approved plans of operations have a spill contingency plan that is reviewed and approved by the NPS.

Pursuant to 36 CFR §9.51(a) an "operator shall be held liable for any damages to federally-owned or controlled lands, waters, or resources, resulting from his failure to comply with . . . his plan of operations . . ." (emphasis added). Undertaking any operations within the boundaries of a park system unit in violation of the 9B regulations shall be deemed a trespass against the United States and shall be cause for revocation of approval of an operator's plan of operations. If an operator violates a term or condition of its approved plan of operation the Superintendent has the authority to temporarily suspend the operation and give the operator the chance to cure the violation. 36 CFR §9.51(c) outlines the Superintendent's suspension authority and procedure. If an operator fails to correct any violation or damage to federally owned or controlled lands, waters or resources the operator's approval will be revoked. 36 CFR §9.51(c)(3).

In addition to the remedies available to the NPS under the 9B regulations, an operator is also subject to the remedial provisions found in all applicable federal, state, and local laws. For instance, under 16 U.S.C. §191j, commonly known as the "Park System Resource Protection Act," any person who destroys, causes the loss of, or injures any park system resource is strictly liable to the United States for response costs and for damages resulting from such destruction, loss or injury.

#### **1.2.4 Approved Park Planning Documents**

Approved park planning documents also provide a framework for determining how nonfederal oil and gas operations are conducted within Padre Island National Seashore.

The General Management Plan (GMP) is the major planning document for all National Park System units. The GMP sets forth the basic philosophy of the unit, and provides strategies for resolving issues and achieving identified management objectives required for resource management and visitor use. The GMP includes environmental analysis and other required compliance documentation. A GMP/Development Concept Plan (GMP/DCP) was completed along with an environmental impact statement for Padre Island National Seashore in 1983.

An Oil and Gas Management Plan/Environmental Impact Statement (OGMP/EIS) was completed for Padre Island National Seashore on August 14, 2000 (USDOl, 2000). The OGMP/EIS describes the overall approaches that will be implemented over the next 15 to 20 years, or longer, to manage existing and anticipated oil and gas operations, including the exploration, development and transportation of nonfederal oil and gas underlying Padre Island National Seashore, in a manner that provides for hydrocarbon development while protecting natural and cultural resources, human health and safety, and allowing for public use and enjoyment of those resources. The Oil and Gas Management Plan:

- 1) Identifies park resources and values most sensitive to oil and gas exploration and development disturbance, and defines impact mitigation requirements to protect such resources and values,
- 2) Establishes reasonable oil and gas exploration and development performance standards to protect park resources and values,
- 3) Develops reasonable alternatives for oil and gas development in the park and analyzes the impacts of those alternatives on park resources and values, and
- 4) Provides pertinent information to oil and gas owners and operators that will facilitate operations planning and compliance with all applicable regulations.

During the scoping and development of the Plan of Operations and of this environmental

assessment, the planning framework provided in the park's GMP/DCP and OGMP have been followed.

Table 1, below, summarizes many, but not all, of the statutes, regulations, executive orders and policies that govern the exercise of nonfederal oil and gas rights in National Park units.

**Table 1. Current Legal and Policy Requirements**

| AUTHORITIES                                                                                                                                                                                                           | RESOURCES AND VALUES AFFORDED PROTECTION                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Statutes and Applicable Regulations                                                                                                                                                                                   |                                                                                                                                                                                                                                |
| National Park Service (NPS) Organic Act of 1916, as amended, 16 U.S.C. §§ 1 <i>et seq.</i>                                                                                                                            | All resources, including air resources, cultural and historic resources, natural resources, biological diversity, human health and safety, endangered and threatened species, visitor use and experience, and visual resources |
| National Park System General Authorities Act, 16 U.S.C. §§ 1a-1 <i>et seq.</i>                                                                                                                                        | All resources, including air resources, cultural and historic resources, natural resources, biological diversity, human health and safety, endangered and threatened species, visitor use and experience, and visual resources |
| NPS Omnibus Management Act of 1998, 16 U.S.C. §§ 5901 <i>et seq.</i>                                                                                                                                                  | Any living or non-living resource                                                                                                                                                                                              |
| NPS Nonfederal Oil and Gas Regulations – 36 Code of Federal Regulations (CFR) Part 9, Subpart B                                                                                                                       | All resources, including air resources, cultural and historic resources, natural resources, biological diversity, human health and safety, endangered and threatened species, visitor use and experience, and visual resources |
| 16 U.S.C. § 191j (commonly referred to as the Park System Resource Protection Act)                                                                                                                                    | Any living or non-living resource that is located within the boundaries of a unit of the National Park system, except for resources owned by a nonfederal entity                                                               |
| American Indian Religious Freedom Act, as amended, 42 U.S.C. §§ 1996 – 1996a; 43 CFR Part 7                                                                                                                           | Cultural and historic resources                                                                                                                                                                                                |
| Antiquities Act of 1906, 16 U.S.C. §§ 431-433; 43 CFR Part 3                                                                                                                                                          | Cultural, historic, archeological, and paleontological resources                                                                                                                                                               |
| Archeological Resources Protection Act of 1979, 16 U.S.C. §§ 470aa – 470mm; 18 CFR Part 1312; 32 CFR Part 229; 36 CFR Part 296; 43 CFR Part 7                                                                         | Archeological resources                                                                                                                                                                                                        |
| Clean Air Act, as amended, 42 U.S.C. §§ 7401-7671q; 40 CFR Parts 23, 50, 51, 52, 58, 60, 61, 82, and 93; 48 CFR Part 23                                                                                               | Air resources                                                                                                                                                                                                                  |
| Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601-9675; 40 CFR Parts 279, 300, 302, 355, and 373                                                           | Human health and welfare and the environment                                                                                                                                                                                   |
| Endangered Species Act of 1973, as amended, 16 U.S.C. §§ 1531-1544; 36 CFR Part 13; 50 CFR Parts 10, 17, 23, 81, 217, 222, 225, 402, and 450                                                                          | Plant and animal species or subspecies, and their habitat, which have been listed as threatened or endangered by the U.S. Fish and Wildlife Service (FWS) or the National Marine Fisheries Service                             |
| Federal Insecticide, Fungicide, and Rodenticide Act, as amended (commonly referred to as Federal Environmental Pesticide Control Act of 1972), 7 U.S.C. §§ 136 <i>et seq.</i> ; 40 CFR Parts 152-180, except Part 157 | Human health and safety and the environment                                                                                                                                                                                    |
| Federal Water Pollution Control Act of 1972 (commonly referred to as Clean Water Act), 33 U.S.C. §§ 1251 <i>et seq.</i> ; 33 CFR Parts 320-330; 40 CFR Parts 110, 112, 116, 117, 230-232, 323, and 328                | Water resources, wetlands, and waters of the U.S.                                                                                                                                                                              |
| Historic Sites, Buildings, and Antiquities Act (Historic Sites Act of 1935), 16 U.S.C. §§ 461-467; 18 CFR Part 6; 36 CFR Parts 1, 62, 63 and 65                                                                       | Historic sites, buildings, and objects                                                                                                                                                                                         |

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| Lacey Act, as amended, 16 U.S.C. §§ 3371 <i>et seq.</i> ; 15 CFR Parts 10, 11, 12, 14, 300, and 904                                                                          | Fish, wildlife, and vegetation                                                                                                                                                                                                 |
| Migratory Bird Treaty Act, as amended, 16 U.S.C. §§ 703-712; 50 CFR Parts 10, 12, 20, and 21                                                                                 | Migratory birds                                                                                                                                                                                                                |
| National Environmental Policy Act (NEPA) of 1969, 42 U.S.C. §§ 4321 <i>et seq.</i> ; 40 CFR Parts 1500-1508                                                                  | The human environment (e.g. cultural and historic resources, natural resources, biodiversity, human health and safety, socioeconomic environment, visitor use and experience)                                                  |
| National Historic Preservation Act of 1966, as amended, 16 U.S.C. §§ 470-470x-6; 36 CFR Parts 60, 63, 78, 79, 800, 801, and 810                                              | Cultural and historic properties listed in or determined to be eligible for listing in the National Register of Historic Places                                                                                                |
| Native American Graves Protection and Repatriation Act, 25 U.S.C. §§ 3001-3013; 43 CFR Part 10                                                                               | Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony                                                                                                                             |
| Noise Control Act of 1972, 42 U.S.C. §§ 4901-4918; 40 CFR Part 211                                                                                                           | Human health and welfare                                                                                                                                                                                                       |
| Oil Pollution Act, 33 U.S.C. §§ 2701-2761; 15 CFR Part 990; 33 CFR Parts 135, 137, and 150; 40 CFR Part 112; 49 CFR Part 106                                                 | Water resources and natural resources                                                                                                                                                                                          |
| Pipeline Safety Act of 1992, 49 U.S.C. §§ 60101 <i>et seq.</i> ; 49 CFR Subtitle B, Ch 1, Parts 190-199                                                                      | Human health and safety and the environment                                                                                                                                                                                    |
| Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 <i>et seq.</i> ; 40 CFR Parts 240-280; 49 CFR Parts 171-179                                                        | Natural resources and human health and safety                                                                                                                                                                                  |
| Rivers and Harbors Act of 1899, as amended, 33 U.S.C. §§ 401 <i>et seq.</i> ; 33 CFR Parts 114, 115, 116, 321, 322, and 333                                                  | Shorelines and navigable waterways, tidal waters, and wetlands                                                                                                                                                                 |
| Safe Drinking Water Act of 1974, 42 U.S.C. §§ 300f <i>et seq.</i> ; 40 CFR Parts 141-148                                                                                     | Human health and water resources                                                                                                                                                                                               |
| <b>Executive Orders</b>                                                                                                                                                      |                                                                                                                                                                                                                                |
| Executive Order (E.O.) 11593 – Protection and Enhancement of the Cultural Environment, 36 Federal Register (Fed. Reg.) 8921 (1971)                                           | Cultural resources                                                                                                                                                                                                             |
| E.O. 11988 – Floodplain Management, 42 Fed. Reg. 26951 (1977)                                                                                                                | Floodplains and human health, safety, and welfare                                                                                                                                                                              |
| E.O. 11990 – Protection of Wetlands, 42 Fed. Reg. 26961 (1977)                                                                                                               | Wetlands                                                                                                                                                                                                                       |
| E.O. 12088 – Federal Compliance with Pollution Control Standards, 43 Fed. Reg. 47707 (1978)                                                                                  | Natural resources and human health and safety                                                                                                                                                                                  |
| E.O. 12630 – Governmental Actions and Interference with Constitutionally Protected Property Rights, 53 Fed. Reg. 8859 (1988)                                                 | Private property rights and public funds                                                                                                                                                                                       |
| E.O. 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, amended by Exec. Order No. 12948, 60 Fed. Reg. 6379 (1995) | Human health and safety                                                                                                                                                                                                        |
| E.O. 13007–Indian Sacred Sites, 61 Fed. Reg. 26771 (1996)                                                                                                                    | Native Americans' sacred sites                                                                                                                                                                                                 |
| E.O. 13112 – Invasive Species, 64 Fed. Reg. 6183 (1999)                                                                                                                      | Vegetation and wildlife                                                                                                                                                                                                        |
| E.O. 13186– Responsibilities of Federal Agencies to Protect Migratory Birds, 66 Fed. Reg. 3853 (2001)                                                                        | Migratory birds                                                                                                                                                                                                                |
| E.O. 13212 - Actions To Expedite Energy-Related Projects (2001)                                                                                                              |                                                                                                                                                                                                                                |
| <b>Policies, Guidelines and Procedures</b>                                                                                                                                   |                                                                                                                                                                                                                                |
| NPS Management Policies (2001)                                                                                                                                               | All resources, including air resources, cultural and historic resources, natural resources, biological diversity, human health and safety, endangered and threatened species, visitor use and experience, and visual resources |
| Department of the Interior (DOI), Departmental Manual (DM) 516 –NEPA policies                                                                                                | Human health and safety and the environment                                                                                                                                                                                    |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DOI, DM 517 - Pesticides                                                                                                                                                                               | Archeological and prehistoric resources, historic resources, Native American human remains, and cultural objects                                                                                                                                          |
| DOI, DM 519 - Protection of the Cultural Environment                                                                                                                                                   | Human health and safety                                                                                                                                                                                                                                   |
| DOI, Onshore Oil and Gas Order Number 2, Section III, Drilling Abandonment Requirements, 53 Fed. Reg. 46,810-46,811 (1988)                                                                             | All resources, including air resources, cultural and historic resources, natural resources, biological diversity, human health and safety, endangered and threatened species, visitor use and experience, socioeconomic development, and visual resources |
| NPS Director's Order (D.O.) -12 and Handbook - National Environmental Policy Act (2001)                                                                                                                | Cultural, historic, and ethnographic resources                                                                                                                                                                                                            |
| NPS D.O. - 28 - Cultural Resource Management (1997)                                                                                                                                                    | Natural resources and human health and safety                                                                                                                                                                                                             |
| NPS 66 - Minerals Management Guideline (1990)                                                                                                                                                          | Natural resources                                                                                                                                                                                                                                         |
| NPS 77 - Natural Resources Management Guideline (1991)                                                                                                                                                 | Wetlands                                                                                                                                                                                                                                                  |
| NPS D.O. 77-1 - Wetland Protection                                                                                                                                                                     | Floodplains                                                                                                                                                                                                                                               |
| NPS Special Directive 93-4 - Floodplain Management Guideline                                                                                                                                           | Cultural and historic resources                                                                                                                                                                                                                           |
| Secretary of the Interior's "Standards and Guidelines for Archeology and Historic Preservation," 48 Fed. Reg. 44716 (1983), also published as Appendix C of NPS D.O. 28 - Cultural Resource Management | Native American Tribal rights and interests                                                                                                                                                                                                               |
| Government-to-Government Relations with Native American Tribal Governments, Presidential Memorandum signed April 29, 1994                                                                              |                                                                                                                                                                                                                                                           |

### 1.3. Issues and Impact Topics Evaluated

Early in the planning and development of the Plan of Operations by BNP, the NPS met with BNP and its contractor, Belaire Environmental, Inc. (BEI), to identify resources, values, and other concerns that could be potentially impacted by drilling and producing the Lemon/Lemon Seed Unit wells. In addition, early input from other federal, state and local agencies was sought. Scoping with the U.S. Fish and Wildlife Service (FWS), U.S. Army Corps of Engineers (COE), and Texas Natural Resources Conservation Commission (TNRCC) involved contacts by telephone, written correspondence, and meetings at the proposed project location within Padre Island National Seashore. Scoping involved defining appropriate alternatives, impact determinations, mitigation measures, and identification of major issues. Based on scoping, the NPS identified the following park resources, values, and other concerns for evaluation in this EA:

- nonfederal oil and gas development
- air quality
- geology and soils
- water resources and floodplains
- wetlands
- vegetation
- natural soundscapes
- wildlife
- state and federally-listed threatened and endangered species
- visitor use and experience

Based on the above list of park resources, values, and other concerns identified during scoping, issue statements were developed to define problems or benefits pertaining to the proposal to drill and produce the Lemon/Lemon Seed Unit wells. The issue statements in Table 2, below, describe a cause-and-effect relationship between an activity and a resource, value, or concern. The issue statements were used in developing and evaluating alternatives.

**Table 2. Issue Statements**

| Impact Topic                       | Issue Statement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nonfederal Oil and Gas Development | <ul style="list-style-type: none"> <li>• The NPS permitting process, regulatory requirements, and operating stipulations generally increase the cost to operate on parklands, compared to operating on non-NPS lands. These increased costs could reduce income to mineral owners (or mineral interest holders) and operators, and influence an owner's or operator's decision to defer, modify, undertake as planned, or not conduct certain nonfederal oil and gas operations.</li> <li>• The decision to drill oil and gas well(s) in the park and the outcome of the drilling operation(s) (whether it produces oil and gas) could contribute to the domestic energy supply.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Air Quality                        | <ul style="list-style-type: none"> <li>• Construction and maintenance of roads, wellpads, production facilities, and pipelines; vehicle use on and off paved roads; and exhaust from combustion of gasoline and diesel-powered vehicles and equipment used for drilling and production operations would increase emissions of particulate matter which could affect air quality, including visibility in the general vicinity of the operations.</li> <li>• Maintenance activities, including the application of herbicides for vegetation control on and around operations sites, would emit pollutants, including nitrogen oxides, volatile organic compounds, carbon monoxide, sulfur dioxide, particulate matter, and objectionable odors. These emissions could degrade air quality within the parks and could contribute toward regional air quality degradation. Nitrogen oxides and volatile organic compounds are primary precursors to ozone formation, which, depending on ambient concentrations, can have damaging effects on some vegetation and on the health of humans and wildlife.</li> </ul>                                                                                                                                                                                                   |
| Geology and Soils                  | <ul style="list-style-type: none"> <li>• Grading and leveling of hummocky uplands and barrier foredunes for the oil and gas access road and wellpad and the placement of nonnative materials (caliche) on the access road and wellpad would result in soil and sand compaction and loss of productivity on approximately 3.6 acres for the duration of the oil and gas operation(s).</li> <li>• Construction of an oil and gas access road through the foredunes would modify dune structure and eolian sand transport, and could result in the funneling of water through the dunes during extremely high tides..</li> <li>• The release of hydrocarbons or other contaminating and hazardous substances from vehicles, equipment, and pipelines during exploration and production operations, could alter the chemical and physical properties of the soil and sand in the vicinity of the operation(s). Changes in the soil and sand properties could result directly from contact with contaminants on-site, or indirectly, via runoff from contaminated areas.</li> <li>• Vehicle use along the Gulf Beach, particularly from heavy vehicles transporting the drilling rig, water, and drilling muds for disposal outside the park, could cause rutting and compaction of the sands on the beach.</li> </ul> |

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| Water Resources and Floodplains | <ul style="list-style-type: none"> <li>• Vehicle use; removal or modification of vegetation; and surface disturbance associated with construction, maintenance and use of the oil and gas access road, wellpad, production facility, and flowline could alter surface and subsurface drainage patterns in the vicinity of operation(s).</li> <li>• The release of hydrocarbons and contaminating or hazardous substances from vehicles, equipment, or pipelines used for exploration and production operations could degrade water quality.</li> <li>• The siting, maintenance, and use of the oil and gas access road, wellpad, production facility, and flowline in the floodplain, or the release of hydrocarbons and contaminating or hazardous substances from these operations, could adversely affect floodplain functions, values and uses, including: the natural moderation of floods, water quality, sediment control, ground water recharge or discharge, fish and wildlife habitat, maintenance of biodiversity, recreational opportunities, and natural beauty.</li> <li>• Reclamation of the oil and gas access road and wellpad could adversely affect water quality and floodplain functions, values and uses over the short-term. However, long-term benefits include the re-establishment of surface and surface water flow, the control of non-native vegetation, and re-establishment of native vegetative communities.</li> </ul> |
| Wetlands                        | <ul style="list-style-type: none"> <li>• Construction of the flowline through .03 acre of an emergent wetland would result in vegetation removal and alteration of the surface and subsurface hydrology of the site for approximately one year.</li> <li>• Reclamation activities that re-establish the contours of the area, restore surface and subsurface water flow, control non-native vegetation, and re-establish native vegetative communities would restore natural and beneficial wetland functions, values, and uses.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Vegetation                      | <ul style="list-style-type: none"> <li>• Vegetation would be totally removed on 3.6 acres for the construction of an oil and gas access road, wellpad, production facility, and flowline. Vegetation removal could change the structure and composition of vegetative communities in the project area; alter wildlife habitat and species composition; increase storm runoff; and increase soil and sand erosion.</li> <li>• Construction and use of the oil and gas access roads, wellpad, production facility, and flowline could disrupt the surface, and subsurface water flow that is necessary to maintain vegetative communities.</li> <li>• The release of hydrocarbons and contaminating or hazardous substances could damage or kill vegetation directly, via contact with contaminants on-site, or indirectly, via pathways from contaminated areas.</li> <li>• Disturbances/removal of native vegetation could lead to the unintentional spread and establishment of non-native plant species transported in or on drilling and maintenance equipment.</li> <li>• Reclamation of the oil and gas site could re-establish native vegetative communities and surface and subsurface drainage patterns necessary to support vegetative growth.</li> </ul>                                                                                                                                                                                      |
| Natural Soundscapes             | <ul style="list-style-type: none"> <li>• Vehicles and equipment used for construction and maintenance of the oil and gas access road, wellpad, production facility, and flowlines could result in increased noise, adversely affecting wildlife and visitor uses and experience.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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| Wildlife                                                     | <ul style="list-style-type: none"> <li>• Oil and gas activities, including vehicle use and the construction, maintenance, and use of the oil and gas access road, wellpad, production facility, and flowline could increase predation in open areas; directly harm or kill wildlife; and disrupt wildlife feeding, denning, nesting, spawning/reproduction, and other behavior. Oil and gas activities could also result in avoidance of the area by wildlife due to increased noise and human presence.</li> <li>• Loss or modification of wildlife habitat could occur from the construction of the oil and gas access road, wellpad, production facility, and flowline. These activities could increase edge effects, increase human access, and alter wildlife species, composition, and migration.</li> <li>• Liquids that collect in secondary containment structures at the oil and gas production site could attract, harm, and possibly kill birds.</li> <li>• The release of hydrocarbons and hazardous or contaminating substances from vehicles, drilling and production equipment, and pipelines could injure wildlife. The adverse effects could become worse over time if wildlife species ingest the contaminants and are consumed by other wildlife species.</li> <li>• Heavy equipment used for reclamation operations could injure or kill wildlife over the short-term. However, reclamation of oil and gas sites over the long-term could re-establish native vegetative communities and surface and subsurface water quality and quantity that support wildlife populations.</li> </ul> |
| State and Federally Listed Threatened and Endangered Species | <ul style="list-style-type: none"> <li>• Trucks driving along the Gulf beach could compact the sand which would make it difficult for the sea turtles to dig a nest cavity.</li> <li>• Trucks (both commercial and private vehicles) driving along the Gulf beach could run over sea turtles, egg clutches and hatchlings, and other T&amp;E species (e.g., birds).</li> <li>• Deep ruts made from large commercial vehicles could be an obstacle to sea turtle during nesting and to hatchlings moving towards the sea. Hatchlings could become vulnerable to depredation, dessication, and exhaustion.</li> <li>• Noise, artificial lighting, and other night-time activities during drilling operations could interfere with the mating process of sea turtles and other T &amp; E wildlife species.</li> <li>• Noise, odors, artificial lighting, and vibrations could interfere with the imprinting process of the hatchling sea turtles.</li> <li>• </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Visitor Use and Experience                                   | <ul style="list-style-type: none"> <li>• Oil and gas operations could pose a threat to human health and safety from the use of the Gulf Beach by commercial vehicles (particularly vehicles with less maneuverability and visibility); hazardous equipment at wells and production facilities; and the release of hydrocarbons and hazardous or contaminating substances.. Spilled or released hydrocarbons and contaminating or hazardous substances could be inhaled, absorbed, or ingested by human beings.</li> <li>• The oil and gas operations could adversely affect air quality; alter scenic resources and the dark night sky; increase background sound levels and could degrade the quality of visitor uses and experiences in the park.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

#### 1.4. Issues and Impact Topics Eliminated from Further Analysis

The following topics have been eliminated from further analysis in this environmental assessment for the reasons described.

#### **1.4.1. Environmental Justice.**

Executive Order 12898, "General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. The proposed action would not have health or environmental effects on minorities or low-income populations or communities as defined in the Environmental Protection Agency's Environmental Justice Guidance (1998). Therefore, environmental justice was dismissed as an impact topic in this EA.

#### **1.4.2. Prime and Unique Farmlands.**

In August 1980, the Council on Environmental Quality directed that federal agencies must assess the effects of their actions on farmland soils classified by the U.S. Department of Agriculture's Natural Resources Conservation Service as prime or unique. Prime or unique farmland is defined as soil that particularly produces general crops such as common foods, forage, fiber, and oil seed; unique farmland is defined as soil that produces specialty crops such as fruits, vegetables, and nuts. There were no prime or unique farmlands located in PAIS; therefore, prime and unique farmlands was dismissed as an impact topic in this EA.

#### **1.4.4. Cultural Resources.**

Cultural resources are another mandatory topic requiring discussion in an NPS EA. There are no historic structures, ethnographic resources, or cultural landscapes within or near the operations area. During project scoping, research was conducted to determine the extent and continuing adequacy of archeological surveys that had been performed in the analysis area. A walk-across reconnaissance level archeological survey was conducted for a 3-D seismic survey in 1999. Archeological data is lacking in some areas however; therefore, BNP contracted for further archeological surveys to be conducted. William Moore and James Warren were used to survey for archeological resources in the area of the proposed project. The survey was conducted between November 27 and December 6, 2001 and found no archeological or historic resources in the survey area. The survey will be submitted to the State Historic Preservation Office (SHPO) for review and approval. Receipt of the SHPO written conformation of "no adverse effect" will be documented in the NPS decision document.

#### **1.4.5. Local and Regional Economics.**

Local and regional economics was dismissed as an impact topic in this EA because the outcome of whether two wells are drilled would have minimal beneficial impact on the local or regional economies.