



**FINDING OF NO SIGNIFICANT IMPACT
BNP Petroleum Corporation
Plan of Operations to Drill and Produce
the ST 991 #1, Dunn McCampbell 12A, and Dunn McCampbell 11A Wells
Within Padre Island National Seashore
Kleberg County, Texas**

INTRODUCTION

On December 11, 2006, BNP Petroleum Corporation (BNP), acting in accordance with 36 C.F.R. subsection 9.32(a), submitted to the National Park Service (NPS) a plan of operations to drill and produce the ST 991 #1, Dunn McCampbell 12A, and Dunn McCampbell 11A wells from a surface location approximately 7 miles south from the end of Park Road 22 along the Pan Am Road. The ST 991 #1 well would be drilled to a bottom-hole location outside Padre Island National Seashore (park), and the Dunn McCampbell 12A and 11A wells will both be drilled to bottom-hole locations within the park. The draft plan was reviewed and required revisions were made available to BNP for inclusion into the plan on two separate occasions. On July 3, 2007, the Superintendent determined that BNP's plan of operations contained the information required by 36 CFR § 9.36 and therefore was substantially complete, and the NPS then proceeded with its formal review. As part of its analysis of BNP's plan, the NPS prepared an environmental assessment (EA) and draft floodplain and wetlands statements of findings (SOFs), and consulted with the U.S. Fish and Wildlife Service (FWS) under Section 7 of the Endangered Species Act and the Texas State Historical Preservation Office (SHPO) under Section 106 of the National Historic Preservation Act.

This document records: 1) a finding of no significant impact as per the National Environmental Policy Act of 1969; 2) a determination of no impairment as per the NPS Organic Act; and 3) a decision to conditionally approve the plan of operations as per 36 CFR 9.37(b)(2).

Padre Island National Seashore Enabling Act

Congress established Padre Island National Seashore with the Act of September 28, 1962, Pub. L. No. 87-712, 76 Stat. 650, codified as amended at 16 U.S.C. §§ 459d through 459d-7 (2000), "[i]n 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. . ." *Id.* at § 459d. At that time the State of Texas owned the surface estate of the submerged lands in the Laguna Madre and the Gulf of Mexico within the park's boundary, and various private landowners owned the surface estate of Padre Island itself. In 1963 the State of Texas conveyed to the United States all of its right, title, and interest in and to the surface estate of the submerged lands, and in the 1960s the United States acquired the surface estate of the island through a series of condemnation actions. The State of Texas retained the mineral estate underlying the submerged lands, and private owners retained the mineral estate underlying the island. Thus, the federal government does not own any rights to the oil and gas located within the park. However, the NPS is required by law and policy to ensure that any actions, including nonfederal oil and gas operations, do not adversely impact or impair park resources and values.

Nonfederal Oil and Gas Rights Regulations, 36 C.F.R. Part 9B

Under the NPS Organic Act (16 U.S.C. § 3) and § 4(a) of the Padre Island National Seashore enabling Act (16 U.S.C. § 459(d), Congress authorized the Secretary of the Interior to promulgate regulations to manage nonfederal oil and gas operations associated with

development of nonfederal oil and gas underlying the Seashore. These regulations, the NPS's Nonfederal Oil and Gas Rights Regulations, are published at Title 36 of the Code of Federal Regulations, Part 9, Subpart B (36 C.F.R. Part 9B). The regulations "control all activities within any unit of the National Park System in the exercise of rights to oil and gas not owned by the United States where access is on, across or through federally owned or controlled lands or waters." Id. at subsection 9.30(a). Each operator may conduct activities only under a Plan of Operations approved by the NPS. Once a Plan of Operations is approved, it serves as the operator's permit to operate in the park.

PREFERRED ALTERNATIVE

The NPS has decided to implement the Preferred Alternative, (Alternative B, Proposed Action), as described in BNP's plan of operations. Under the Preferred Alternative, the NPS will approve BNP's plan of operations to drill and produce the ST 991 #1, Dunn McCampbell 12A, and Dunn McCampbell 11A wells.

The Preferred Alternative allows BNP to access and develop its legally recognized and protected oil and gas interests; at the same time, through the careful application of mitigation measures developed during the scoping and planning processes, it ensures the protection of park resources and values. The Preferred Alternative includes the following components:

Access. All vehicles used during well pad expansion, drilling, and production operations will enter the park via Park Road 22, travel approximately eight miles to the end of the paved road, and then proceed approximately seven miles along the Gulf Beach to a gated dune pass and an existing shell/caliche road that extends approximately four miles to the A8 well location.

Surface Location and Wellpad. BNP's proposed drill site will be located on the existing Dunn-McCampbell "A" Lease wellpad because the site would avoid or minimize adverse impacts on wetlands, tidal flats, dunes, and other sensitive resource areas since it is a previously disturbed 1.7191-acre site. The wellpad has been expanded by 0.8312 acres for a total wellpad acreage of 2.5503 acres, which is the acreage BNP has stated, is necessary for the proposed operation. This expanded site will provide for an orderly addition of up to three new wells adjacent to the existing Dunn-McCampbell A8 wellhead.

A six-foot diameter by six-foot deep corrugated galvanized steel cellar will be installed around each well. Cellars will be made of rolled steel with spiral seams and will be effectively watertight. After leveling the pad area, a 20 mm thick polyethylene protective liner will be placed on the pad area with approximately a 6-foot overlap between sheets. A 3-foot high caliche berm will be constructed around the perimeter of the pad area for emergency containment that will also be lined with a 20mm thick impermeable liner. All equipment, machinery, and living quarters will be placed within the 2.5503-acre pad area.

Use of Water for Drilling. Freshwater is needed during the drilling operation primarily for mud dilution, cementing, and rig cleaning and will be supplied by the existing Dunn-McCampbell A8 water well. By using synthetic oil based mud, approximately 7,500 barrels (315,000 gallons) of freshwater will be needed to drill each well. The water will be stored in the drilling rigs water tank and, if necessary, an additional fractionating tank will be installed on location.

Production Facility. Should the well be placed in production, production facilities will be located on the reduced pad of 1.5503 acres. BNP will use existing tank batteries and production equipment that are present on the location. The tank battery will be contained within an appropriate firewall of a sufficient size equal to 1.5 times the quantity of the largest tank. Standard oil and gas high and low-pressure separators will be used for primary and secondary gas/liquid separation. If needed, a cooler will be installed. If required by a gas contract, the gas will be dehydrated using a standard tri-ethylene glycol dehydration unit. All produced water will

be stored in a closed top tank(s) within the boundaries of the tank battery firewall. The produced water will be transported to an off site disposal facility by vacuum truck. Production for all operations could continue for up to 20 years.

Flowline. BNP proposes to utilize an existing metering facility previously installed for the A3 and A8 wells located within the original pad area. BNP will also use the existing flowline and tap located at the Houston Pipeline (HPL) main trunk line. All such facilities will be built to HPL specifications as authorized by the NPS. The pad expansion will not require disturbance of the existing flowline. BNP anticipates that the existing metering, flowline, and tap facilities are adequate for projected flow. However, should the production rate reach a level such that the existing facilities should require revision, NPS will be notified and NPS procedures will be followed to request an upgrade to the facilities.

Plugging and Reclamation Plan. BNP will plug the wells in accordance with State of Texas requirements, in addition to NPS plugging requirements that are based on Federal Onshore Oil and Gas Order #2 specifications. The NPS plugging requirements are focused on protection of usable quality aquifers and surface resources, and are defined in Chapter 7 of the *NPS' Operator's Handbook for Nonfederal Oil and Gas Development in Units of the National Park System*. As soon as possible after completion of approved operations but no later than six (6) months thereafter unless a longer period of time is authorized by the Regional Director, BNP will initiate reclamation in accordance with NPS requirements at 36 CFR 9.39(a)(2).

Final site reclamation will commence within 30 days once all wells on the site are depleted, plugged, and abandoned. The total site reclamation should be completed within 120 days and re-vegetation should occur within one year depending on rainfall.

At the completion of production operations, each well will be plugged, and all above ground structures, equipment, and other manmade debris resulting from operations will be removed; and any contaminating substances will be removed or neutralized. (36 CFR 9.39 (a)(2)). The pad area will be re-contoured as near as possible to the original contour. The re-contoured ground will be fertilized at 40 pounds per acre of 30/0/10 (N-P-K) fertilizer. Native hay will be used to mulch the disturbed areas. If additional hay is needed, BNP will obtain it from a suitable site approved by the park from a commercial harvester or the park will issue a permit to BNP to harvest hay in the park. BNP will make every effort to harvest the hay at a time that will provide for high seed density. If possible, mulching will be scheduled so as to take advantage of predicted rainfall. During annual monitoring efforts, undesirable species will be controlled either by herbicide application or hand/tool removal, as approved by the NPS. Restored areas will be monitored annually until 70 percent coverage of targeted species is achieved. A report will be submitted by BNP to the park documenting restoration activities and results. Monitoring will cease after 70 percent of the original vegetative coverage is achieved or after the site had been approved by the park superintendent.

Mitigation Measures

In order to reduce the impacts on the park's resources and values, BNP and its contractor, BEI, sought the views and advice of personnel at the park, USFWS, COE, US Geological Survey and other experts. BNP and BEI also relied on the recommendations of the park's *Oil and Gas Management Plan 2000* for operating standards and other information. As a result of these and other efforts, BNP included the mitigation measures listed in Table 1 in its plan of operations. The location of each measure in the plan is included in the table. Table 2 lists certain operational conditions that may require drilling during peak-nesting season for turtles, which will require additional mitigation measures which are listed in Table 3. The NPS is applying the additional mitigation measures as a condition of approving the plan of operations.

ALTERNATIVES CONSIDERED

In addition to the Preferred Alternative, the EA considered the no action alternative (Alternative A). Under NEPA, an agency analyzes the No Action Alternative to establish a baseline against which to compare the environmental consequences of the proposed action. Other alternatives were considered but dismissed from further analysis in the EA because they did not meet the project objectives as well as the alternatives being evaluated in detail. These included NPS acquisition of the mineral rights that are part of BNP's proposal; drilling from two other surface locations; and accessing the location from an interior road that would need to be constructed resulting in impacts to approximately 10.2 acres (444,312 square feet) of upland/dunes and 40.7 acres (1,772,892 square feet) of wetlands.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

Alternative A, No Action, is the environmentally preferred alternative. The environmentally preferred alternative is the alternative that best meets the national environmental policy expressed in Section 101 of the National Environmental Policy Act:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- Assure for all generations safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
- Preserve important historic, cultural and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice;
- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Under Alternative A, No Action, the three new wells would not be drilled. Because there would be no new impacts, Alternative A would provide the greatest protection of area and park resources and values and meets five of the six criteria (1 through 4, and 6) and is therefore the environmentally preferred alternative.

Alternative B, Proposed Action, meets four of the six criteria (1, 2, 4, and 5), and was selected for implementation over the environmentally preferred alternative. The NPS preferred alternative is Alternative B, Proposed Action, because BNP holds a valid oil and gas lease right which, if developed, will not result in an impairment of park resources and values. This alternative will fulfill park protection mandates while recognizing BNP's right to exercise its mineral interest. After consideration of public and agency comments throughout the scoping and planning process, careful review of potential resource and visitor impacts, and development of appropriate mitigation measures to protect resources, NPS determined that the preferred alternative best strikes a balance between resource protection and recognizing private minerals underlying Padre Island National Seashore.

Impact Methodology. The National Environmental Policy Act of 1969 (NEPA), codified as amended primarily at 42 U.S.C. §§ 4321-4370f (2000), requires federal agencies to prepare what is known as an environmental impact statement (EIS) for "every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. subsection 4332(2)(C). Agencies generally prepare an environmental assessment in order to determine whether a particular proposal will have

significant effects and therefore will require the preparation of an EIS. The Council on Environmental Quality (CEQ) has promulgated government-wide regulations implementing NEPA, codified at 40 C.F.R. Parts 1500-1517.

In the EA, the NPS took a "hard look" by considering the direct, indirect, and cumulative impacts (effects) of the proposed action on the environment, along with connected, cumulative, and similar actions. Impacts were described in terms of context and duration. The context or extent of the impact was described as localized (extending up to 100 feet along access roads and 1,500 feet from a drilling rig, which is the distance that elevated noise would attenuate to ambient levels recorded in the park) or widespread (affecting the entire project area). The duration of impacts was described as short-term, ranging from days to three years in duration, or long-term, extending up to 20 years or longer. Generally, short-term impacts apply to the surveying, drilling, recording, and initial reclamation phases of the drilling operation, and long-term impacts apply to roads, production operations, and flowlines. The intensity and type of impact was described as negligible, minor, moderate, or major, and as beneficial or adverse. The NPS equates "major" effects as "significant" effects. The identification of "major" effects would trigger the need for an environmental impact statement (EIS). Where the intensity of an impact could be described quantitatively, the numerical data was presented. Most impact analyses were qualitative. The use of the four impact intensity levels and their respective impact threshold definitions also provides a "hard look" to NPS decision makers and enables them to evaluate the impacts in an objective fashion.

The NPS defines "measurable" impacts as moderate or greater effects. It equates "no measurable effects" as minor or less effects. "No measurable effect" is used by the NPS in determining if a categorical exclusion applies or if impact topics may be dismissed from further evaluation in an EA or EIS. The use of "no measurable effects" in the EA pertained to whether the NPS dismissed an impact topic from further evaluation in the EA. The reason the NPS uses "no measurable effects" to determine whether impact topics are dismissed from further evaluation is to concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail as required by Council on Environmental regulations at 40 CFR § 1500.1(b).

Section 1.4 of the EA, *Issues and Impact Topics Eliminated from Further Analysis*, provides a limited evaluation and explanation as to why some impact topics are not evaluated further in the EA because the particular resource is not found in the analysis area; there will be no effect from the proposal; or through the application of mitigation measures, there will be minor or less effects from the proposal, and there is little controversy on the subject or reason to otherwise include the topic. Due to the low intensity of effects, the contribution towards cumulative effects is low. There is no impairment analyses included in the limited evaluations because the NPS's threshold for considering whether there could be impairment is based on "major" effects.

Resources and concerns dismissed from further evaluation in Section 1 of the EA included: *Socioeconomics, Environmental Justice, Prime and Unique Farmland Soils, Cultural Resources, Air Quality, Catastrophic Incidents, including Well Blowouts, Well Fires, or Major Spills, and Certain Federal or State Protected Species.*

Through the scoping process, the interdisciplinary team decided to carry the following topics through for analysis in Section 3 of the EA because these resources are located in the analysis area and could have measurable effects, meaning moderate or greater intensity impacts as a result of implementation of the proposal: geology and soils, water resources and floodplains, wetlands, vegetation, natural soundscapes, wildlife, species of management concern, and visitor use and experience. The impact analyses in Section 3 of the EA also included a finding on whether or not the actions contained in the alternatives would impair park resources. For all

of the park resources evaluated in Section 3 of the EA, there were no major effects identified; therefore, the impairment findings concluded there would be no impairment from implementation of the preferred alternative.

Cumulative impact analyses on park resources for drilling and producing up to 18 wells projected in the reasonably foreseeable development scenario was performed in the *Oil and Gas Management Plan/Environmental Impact Statement* completed for Padre Island National Seashore in March 2000. No major adverse impacts were identified on park resources from implementation of the preferred alternative.

WHY THE PREFERRED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

As defined in 40 CFR § 1508.27, significance is determined by examining the following criteria:

- Impacts that may be both beneficial and adverse
- Degree of effect on public or health and safety
- Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas
- Degree to which effects on the quality of the human environment are likely to be highly controversial
- Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks
- Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration
- Whether the action is related to other actions with individually insignificant but cumulatively significant impacts
- Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources
- Degree to which the action may adversely affect an endangered or threatened species or its critical habitat
- Whether the action threatens a violation of Federal, State, or local environmental protection law

These criteria are specifically considered below.

Impacts that may be both beneficial and adverse

Below is a summary of the potential beneficial and adverse effects on the resources and values, and other concerns analyzed in Section 3 of the EA.

Geology and Soils. The existing well/production pad will be expanded 0.8312 acre, resulting in the short-term disturbance to geology and soils. Expansion of the existing wellpad and drilling and producing the wells, in addition to existing activities within the analysis area, would result in localized, short to long-term, negligible to minor, adverse impacts on geology and soils. If the wells are placed in production, the pad will be reduced to 1.5503 acres and continued use of the site for production operations will result in the long-term occupancy of the wellpad, with minor adverse impacts on geology and soils.

Water Resources and Floodplains. A Statement of Findings was prepared as per the NPS's Floodplain Management Guidelines (DO 77-2) and made available for comment along with the EA. No comments were received. Expansion of the well/production pad, and maintenance, drilling, and production activities associated with the ST 991 #1, Dunn McCampbell 12A, and

Dunn McCampbell 11A wells will result in the short-term occupancy of 100-year floodplain on 2.5503 acres; and if the wells are placed in production, the long-term occupancy of 1.5503 acres. There is no practicable alternative to siting the oil and gas operations within the 100-year floodplain because the entire coastal barrier island, except the highest dunes, is within the floodplain. The application of mitigation measures will reduce the flood hazard, resulting in localized, long-term, negligible to minor, direct and indirect, adverse impacts on water resources and floodplains within the analysis area. The proposal could change surface and subsurface hydrology and result in leaks and spills of contaminating and hazardous substances. Mitigation measures, including the implementation of a spill control and countermeasure plan, will reduce the potential for leaks and spills to occur, and in the event of a spill for released substances to be contained on the well/production pad, resulting in localized, short- to long-term, negligible to minor, adverse impacts.

Wetlands. A Statement of Findings was prepared as per the NPS's Procedural Manual #77-1: Wetland Protection, and made available for comment along with the EA. No comments were received. The expansion of the existing wellpad will result in short-term, direct impacts on 0.8312-acre of NPS emergent wetlands. This expansion has already occurred prior to approving the plan of operations, and prior to the approval and knowledge by the NPS. A 2:1 wetland compensation project will occur under this action for the restoration of the 0.8312-acre wellpad expansion. This wetland compensation project will consist of restoring ~1.7 acres of an abandoned oilfield access road built-up over a tidal flat. This restoration project will consist of removing the road base material and contouring to an elevation that is level with the tidal flat, thus restoring hydrology to approximately 10 acres of tidal flat.

Vegetation. Wellpad expansion will directly impact an additional 0.8312-acre of upland vegetation. If the wells are placed into production, there will be short-term loss of vegetative cover on 2.5503 acres and a long-term loss on 1.5503 acres. Wellpad expansion and drilling and producing the well, in addition to existing activities within the analysis area, will result in localized, short to long-term, negligible to minor, direct and indirect, adverse impacts on vegetation. The continued use of the site for production operations will result in localized, long-term, minor adverse impacts on vegetation. The wellpad reduction will remove 1.0 acre of imported material, resulting in a localized, short-term, minor, adverse impact on vegetation until the site is re-vegetated to 70% native cover.

Natural Soundscapes. The wellpad expansion and routine maintenance activities during production will result in localized, short-term increases in noise associated with vehicle traffic, heavy equipment, and ground-disturbing activities. Elevated noise will be greatest during the short-term drilling of the wells. Sound levels could reach 90 decibels on the drill rig. At 1,500 feet from the drill rig, sound levels are expected to approach background levels ranging from 30 to 45 decibels depending on wind direction and speed. Elevated noise during the drilling phase will result in localized, short-term, minor to moderate, adverse impacts on natural soundscapes within 1,500 feet of the wellpad. It is possible that on a calm day visitors could hear the equipment farther than 1,500 feet. During the long-term production life of the well, occasional workover operations could occur at five to 10 year intervals and take one to two weeks to complete. Workover operations will increase noise levels, but at a much lower intensity and duration than drilling a well. Production operations will result in localized, long-term, negligible to minor, adverse impacts from routine daily pickup truck traffic, periodic larger truck traffic necessary to remove produced liquids, and the use of a compressor to remove gas if necessary.

The reclamation of approximately 1.7 acres of an abandoned oilfield access road will involve using heavy equipment to remove road base material and preparing the ground to re-establish natural topographic contours and reseeding with native vegetation to approximate adjacent

undisturbed areas. Ground-disturbing equipment and vehicles will introduce elevated noise into the area. Minor adverse impacts will be localized within the road corridor and short-term, lasting a few weeks or months.

Wildlife. Reconstructing the well/production pad will result in short-term loss of wildlife habitat on 2.5503 acres and the long-term occupancy of 1.5503 acres. Elevated noise levels, particularly during drilling operations, could displace wildlife, but most wildlife are expected to return after becoming acclimated to some noise disturbance. Displaced wildlife could increase competition in adjacent areas over the short-term. If the wells are placed in production, the wellpad will be reduced by 1.0 acre, resulting in localized, short-term, negligible to minor, adverse impacts on wildlife. Additional flowline construction will not be required as part of the proposed plan. Production of the well could extend up to 20 years or more, resulting in the long-term loss of habitat and displacement of some wildlife on 1.5503 acres.

Mitigation measures, including use of diesel electric drilling rig and hospital mufflers and compressors to reduce noise levels, fencing the operations area to exclude wildlife, using primary and secondary containment to prevent leaks and spills from being released into the environment, preventing birds and bats from entering open-vent exhaust stacks, covering all open-topped tanks to minimize accidental injury or death of migratory birds, planting native willow shrubs or trees around production facilities to provide and perpetuate migratory bird habitat, preventing the introduction of exotic species, careful use of NPS-approved herbicides, good housekeeping, and routine monitoring and inspection of operations, are expected to substantially reduce the impacts to wildlife.

Species of Management Concern.

Sea Turtles. The initial expansion and future reduction of the well/production pad, drilling, and production operations occurring in the back-island environment will have no impacts on sea turtles because these operations will be sited approximately 900 feet behind the Gulf beach.

Impacts on sea turtles could occur from vehicle use on the 7-mile segment of Gulf beach to access the proposed wellpad. BNP will be required to confine vehicle use above the "wet-line" and apply other mitigation measures specifically designed in consultation with the U.S. Fish and Wildlife Service to avoid or minimize impacts on sea turtles. Vehicles could compact and rut beach sands, making it difficult for sea turtles to travel across the beach and nest or for hatchlings to return to the Gulf. Vehicles could also run over and crush turtles. Poorly maintained vehicles could drip or leak motor oil, coolant, and other lubricants on the beach. Truck traffic associated with drilling the well will range from 4 to 20 truck trips per day, with 13 average daily trips. Once drilling is completed, the number of large vehicles used in long-term production operations will substantially decrease to approximately one per week.

Drilling of the wells is expected to take place outside of the primary Kemp's ridley sea turtle nesting season during late summer; therefore, direct impacts would be negligible. However, if drilling does occur in the nesting season, additional mitigation measures would be applied (see Tables 2 and 3 attached). With the application of the mitigation measures, which include daytime driving only and the requirement for trained staff to precede operations vehicles down the beach, the potential for impacts will be reduced. Vehicle access along the 7-mile segment of Gulf beach will result in localized, short to long-term, direct and indirect, negligible to minor, adverse impacts on sea turtles. Mitigation measures and monitoring of the proposed project will reduce the potential impact on sea turtles, and help to ensure that the project is not likely to adversely affect these species.

The four remaining species of sea turtles (loggerhead, green, hawksbill, and leatherback) nest primarily at night and hatchling emergence is usually at night or very early in the morning. As the number of nests in the park, and within the project area, is historically few for these species, the risk of impacting one of these species of sea turtles is greatly reduced because of the limited possibility of encountering one on the seashore. As night driving by BNP would be restricted during the sea turtle nesting season, the chance of injuring an adult is remote, especially for the green, hawksbill and leatherback sea turtles.

Raptors. Well pad expansion would have short-term, direct impacts on 0.8312 acres of grassland habitat preferred by the White-tailed and Ferruginous Hawks. If the wells are placed in production, the wellpad would be reduced by 1.0 acre, resulting in localized, short-term, minor direct and indirect, adverse impacts on White-tailed and Ferruginous Hawks until the site is satisfactorily reclaimed and habitat returned. Pad expansion activities could displace resting raptors resulting in localized, short-term, negligible to minor, direct impact on raptors. However, the proposed project is located in habitat that is void of trees and therefore impacts on resting raptors would be very limited. Northern Aplomado Falcons, White-tailed Hawk, and Ferruginous Hawk utilize grassland habitats for foraging and may be impacted by the proposed project. These raptors could be displaced by traffic operating along the access road and pad resulting in localized, short-term, negligible, direct adverse impact to Northern Aplomado Falcons, White-tailed Hawks, and Ferruginous Hawks.

The proposed drilling and production operation will provide structures that could be used for perching. Drilling and production equipment will be higher than the surrounding terrain and provide an opportunity for these species to perch. Since few perching structures exist and the historic use of oil and gas equipment by falcons is documented, it is likely that equipment associated with this alternative could be used by these species. Drilling and production operations will result in localized, short-term, negligible, direct, beneficial impacts on raptors.

Shorebirds. BNP will use a 7-mile segment of Gulf beach to access its existing wellpad. Vehicles will displace shorebirds causing them to take flight and either fly along the shoreline to another suitable location and land, or fly offshore. This displacement will be temporary, but more frequent due to the increased vehicle use along the Gulf beach during the pad expansion and the placement and removal of the drill rig. Shorebird response to vehicles associated with the proposed ST 991 #1, Dunn-McCampbell 12A, and Dunn-McCampbell 11A wells is expected to be the same as vehicles associated with recreational activities or other vehicle use along the shoreline.

BNP will be required apply mitigation measures listed in Table 1 to minimize the disturbance to shorebirds. Mitigation measures include vehicle caravans and confinement of vehicle traffic above the "wet-line," which increases the distance between the vehicles and shorebirds. Additionally, project vehicles will be grouped together prior to entering the beach, escorted to the site, and limited to a reduced speed of 15 mph, versus the posted speed limit of 25 mph. This will reduce the amount of disturbance on shorebirds, as reducing speed and the number of times the bird is displaced will lessen the overall impact. Reduced vehicle speed lessens the disturbance affect on many shorebirds. It is expected that as the larger trucks approach, the birds will take flight no matter what the speed, due in part to the size of the vehicle and greater noise generated. As a result of mitigation measures, the intensity of impacts of vehicle use on the shoreline will be reduced.

Recreational activities on the beach include camping, fishing, swimming, wading, picnicking, nature viewing, and beachcombing. Disturbance to shorebirds could result from vehicle or pedestrian traffic along the shoreline. Pedestrian traffic causes shorebirds to either fly offshore, fly along the shoreline to a more suitable location, or continually walk ahead of the pedestrian

until either the pedestrian leaves, another disturbance occurs, or the disturbance is enough to cause the bird to take flight.

Existing vehicle access and recreational use on the 7-mile segment of Gulf beach will result in localized, short to long-term, negligible to minor, indirect and direct, adverse impacts on shorebirds.

Songbirds. Expansion of the well pad and drilling and production of the wells will cause the loss of habitat for Loggerhead shrikes, resulting in localized, short to long-term, negligible to minor, direct and indirect, adverse impacts. Adverse impacts on songbirds from reduction of the wellpad and ultimate reclamation of the entire pad will be localized, minor, and short-term (lasting up to one year or more) during construction and re-vegetation activities. The continued use of the site for production operations will result in localized, long-term, negligible to minor, direct and indirect, adverse impacts on songbirds in the analysis area.

The potential for leaks and spills exists during all phases of oil and gas operations, resulting in impacts that could be localized, with minor to major, short-term direct and indirect, adverse impacts on grassland habitat. However, with the mitigation measures included with this alternative, the intensity of impacts will be reduced.

An indirect, localized, short-term, negligible beneficial impact may occur from the presence of shielded lighting on the drilling rig. This lighting will attract insects, which will provide a food source for the songbirds. In addition, the use of barbed wire around the wellpad could be utilized by this species for impaling prey. Finally, if the wells go into production, trees that will be planted for visual screening could result in localized, negligible, long-term beneficial impacts on songbirds by providing perching and foraging habitat for these species.

Visitor Use and Experience. Vehicle access on the Gulf beach; expanding the well/production pad; and drilling and producing the wells will result in the short-term loss of natural scenery on up to 2.5503 acres, and long-term occupancy on 1.5503 acres, with localized, short to long-term, negligible to minor, direct and indirect, adverse impacts, on visitor use and experience in the analysis area.

Vehicle use on the 7-mile segment of Gulf beach to access its proposed wellpad could compact and rut beach sands; and poorly maintained vehicles could drip or leak motor oil, coolant, and other lubricants on the beach. BNP's vehicle access on the beach could result in deeper and wider rutting, possible conflicts with visitors sharing the beach driving corridor, and repeated exposure to up to 20 trucks each day. These vehicular impacts could last for up to 141 days for drilling the wells. If the wells are placed in production, occasional vehicular traffic will traverse the Gulf beach to perform routine, periodic maintenance and removal of condensate from the well.

Expansion of the well/production pad could result in the short-term loss of natural scenery on up to 2.5503 acres. If the well is placed in production, long-term occupancy by oil and gas development on the well/production pad will be confined to 1.5503 acres.

The potential for leaks and spills exists during all phases of oil and gas operations, resulting in impacts that could be serious on a very localized level, with minor to major, short-term adverse impacts on visitor use and experience; however, with the mitigation measures included with this alternative, the intensity of impacts will be reduced.

Mitigation measures, including selecting a proposed operations area located away from visitor use developments and recreational use areas, providing security and a 3-strand barbed-wire fence during the drilling operations to prevent unauthorized entry into the operations area, fencing and gating the production operations, stationing a maintainer on the Gulf beach to

smooth out any rutting that occurs to facilitate continued visitor access along the beach, using a diesel electric drilling rig and hospital mufflers and compressors to reduce noise levels, using primary and secondary containment to prevent leaks and spills from being released into the environment, planting native willow shrubs or trees around production facilities to provide and perpetuate migratory bird habitat and minimize visual impacts to visitors, caravanning large vehicles along the Gulf beach and enforcing speed limits, restricting large vehicle access on the Gulf beach at night, and painting the production facility a neutral color to blend with the surrounding environment, will result in avoiding or minimizing impacts on visitor use and experience.

Degree of effect on public health or safety

Mitigation measures, including selecting a well/production site away from park developments and visitor use areas as much as reasonably possible, providing security fencing, reducing noise levels of equipment, and directing large vehicles away from the main park road, will result in localized, short to long-term, negligible to minor, adverse impacts on public health and safety.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas

Prime or unique farmlands, wild and scenic rivers, or ecologically critical areas will not be affected, because they are not in the analysis area. See the discussion below regarding impacts on cultural resources.

Wetlands. BNP proposes to drill the ST 991 #1, Dunn-McCampbell 12A, and Dunn-McCampbell 11A natural gas wells and continue the operation of the Dunn-McCampbell A8 water well. The new wells will be placed on the existing A8 wellpad, road, and flowline corridor utilized when the A8 well was originally installed in 1985, which is approximately seven miles south of the end of the pavement on South Beach. The use of the well pad to drill up to three wells will require an expansion of 0.8312-acre.

In 2007, park staff discovered construction occurring at the A3/A8 pad that, after GIS data collection and analysis, showed the pad had been expanded from the previously permitted 1.7191 acres to 2.5503 acres. Park staff conducted a field investigation to assess the area of wetlands impacted as a result of this unauthorized pad expansion. The park's investigation identified 0.8312 acres of impacts to wetland habitat through the placement of fill material used during the expansion of the wellpad. BNP will tie into the flowline underneath the well/production pad. However, over the long-term operation of the well and use of the flowline, BNP may on occasion need to access the flowline corridor and may need to excavate portions or the entire flowline to replace portions of or the entire flowline. Therefore, as a result of the unauthorized pad expansion, re-activating the flowline, and the potential for wetlands impacts over the long-term producing life of the well, the park prepared a draft Wetland Statement of Findings as per the NPS's Procedural Manual #77-1: Wetland Protection (DO 77-1), released it for agency and public review along with the Plan of Operations, EA and a draft Floodplain Statement of Findings. No comments were received.

As per the NPS's DO 77-1, the park identified in the Wetland Statement of Findings a wetlands compensation project that BNP will, prior to or at the time of implementing its plan of operations, restore existing disturbance associated with two miles of abandoned oil and gas road located north of Yarbrough Pass Road. BNP will remove fill material and restore pre-disturbance topography so that tidal flow will occur on wind tidal flat habitat adjacent to the road.

In-kind compensation of emergent wetlands is not possible because there are no areas in the park where emergent wetlands are disturbed that can be restored. However, the compensation

project will serve to restore higher value wetland functions and values associated with wind-tidal flats.

Degree to which effects on the quality of the human environment are likely to be highly controversial

There is no major controversy about the project's effects on the human environment.

Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks

There are no highly uncertain effects, or unique or unknown risks identified with this proposal.

Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration

If the wells are successful, it may encourage additional oil and gas drilling to develop mineral interests under the park and adjacent areas. However, the NPS will evaluate each proposal to drill beneath the park; will consider the cumulative impacts of each proposal; and, before approving any proposal, will apply appropriate mitigation measures to reduce or avoid any significant effects. The NPS has considered the cumulative effects of future oil and gas activity in the EA.

This is not precedent setting because oil and gas development at Padre Island National Seashore is provided for and contemplated in both statute and regulations, and is not unusual or an unexpected occurrence. Mineral exploration and development is fully in accord with the park's *General Management Plan* (1983) and the park's *Oil and Gas Management Plan* (2000).

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts

Oil and gas exploration and development will continue within and adjacent to Padre Island National Seashore regardless of whether NPS approves this proposal. Adherence to Federal, State, and local laws and regulations, and mitigation measures by oil and gas operators will reduce potential cumulative impacts below the threshold of significance. Cumulative impact analysis was also fully carried out for Padre Island National Seashore within the environmental impact statement for oil and gas management completed in 2000.

Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources

There are no historical or cultural resources in the project area. The NPS consulted with the State Historic Preservation Office, and concurrence was obtained on June 18, 2007 with a determination that "the project will have *No Adverse Effect* on cultural properties within or adjacent to the project area." Therefore, the NPS has completed consultation required by § 106 of the National Historic Preservation Act of 1966.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat

On February 8, 2007, Padre Island National Seashore submitted a biological assessment (BA) for the *BNP Petroleum Corporation proposed ST 991 #1, Dunn McCampbell 12A, and Dunn McCampbell 11A Wells Located at Padre Island National Seashore* to the Fish and Wildlife Service (FWS) as per the consultation requirements under Section 7 of the Endangered Species Act. On March 14, 2007, FWS provided NPS with the recommendation that existing consultation (2-11-04-F-050) be amended to include the proposed ST 991#1, Dunn-McCampbell 12A, and Dunn-McCampbell 11A wells. This recommendation was based on the proposed wells being in the same geographic location as existing wells and operated by the same company covered by the previous consultation. The recommendation was completed and

re-submitted to FWS for review on October 10, 2007. On November 27, 2007, the park received a letter from FWS stating their concurrence with the NPS determination that the ST 991 #1, Dunn McCampbell 12A, and Dunn McCampbell 11A project "may affect, but is not likely to adversely affect" species of management concern on Padre Island National Seashore.

Whether the action threatens a violation of Federal, State, or local environmental protection law

The preferred alternative has been developed to comply with all regulatory requirements. Further, this proposal is consistent with the park's 1983 *General Management Plan* and 2000 *Oil and Gas Management Plan*.

IMPAIRMENT

Sections 1.5 and 8.12 of the NPS *Management Policies* 2006 underscore the fact that not all uses are allowable or appropriate in units of the National Park System. The preferred alternative to drill and produce three wells from a surface location inside the park to extract hydrocarbons from bottomhole targets beneath the park is provided for and contemplated in both statute and regulation, and is not unusual or an unexpected occurrence. Nonfederal oil and gas exploration and development is fully in accord with the park's *General Management Plan* (1983) and *Oil and Gas Management Plan* (2000). Therefore, the NPS finds that the proposed wells are an appropriate use. Section 1.4.7.1 of the NPS *Management Policies* 2006 addresses "unacceptable impacts." Because the application of mitigation measures would be reasonably expected to be successful in resulting in no major adverse impacts, and satisfactory reclamation of the disturbed operations area would also be reasonably expected to be achievable, the NPS finds that implementation of the preferred alternative would not result in any unacceptable impacts.

In analyzing impairments in conjunction with the NEPA analysis for this project the NPS takes into account the fact that if an impairment were likely to occur, by operation of the CEQ's regulations at 40 CFR, such impacts would be considered to be major or significant. This is because the context and intensity of the impact would be sufficient to render what would normally be a minor or moderate impact to be major or significant. Taking this into consideration, NPS guidance documents note, "Not all major or significant impacts under a NEPA analysis are impairments. However, all impairments to NPS resources and values would constitute a major or significant impact under NEPA. If an impact results in impairment, the action should be modified to lessen the impact level. If the impairment cannot be avoided by modifying the proposed action, that action cannot be selected for implementation." ("Interim Technical Guidance on Assessing Impacts and Impairment to Natural Resources" National Park Service, Natural Resource Program Center, July 2003).

In addition to reviewing the definition of "significantly" under the NEPA regulations, the NPS has determined that implementation of the preferred alternative would not constitute an impairment to the integrity of Padre Island National Seashore resources or values as described by NPS *Management Policies* NPS 2006 §1.4. This conclusion is based on the NPS's analysis of the environmental impacts of the proposed action as described in the EA identified less than major adverse impacts on geology and soils; water resources and floodplains; wetlands; vegetation; natural soundscapes; wildlife; species of management concern; and visitor use and experience. This conclusion is further based on the Superintendent's professional judgment, as guided and informed by the Padre Island National Seashore's *General Management Plan* (1983) and *Oil and Gas Management Plan* (2000), and the regulations found at 36 C.F.R. Part 9, Subpart B.

PUBLIC INVOLVEMENT

Following an internal scoping process involving NPS staff at the Seashore, Regional and Washington Offices, the interdisciplinary planning team decided that the same footprint used to expand a well/production pad used to drill a well most recently in 1985 would be the best location to site the well/production pad for the proposed wells because impacts would be confined to the previously-disturbed area and would minimize new impacts on wetlands to a total area of 0.8312 acres necessary for the pad expansion. Public scoping was conducted from January 29, 2007 through February 28, 2007. Four comments were received, but none were substantive.

The NPS released the Plan of Operations, EA, and draft Floodplain and Wetland Statements of Findings (draft SOFs) for public review and comment during a 30-day period from October 19, 2007 – November 18, 2007. The NPS announced the availability of the documents for the 30-day public review and comment period by publishing a notice of availability in the *Federal Register* on October 19, 2007. The following state and federal agencies were notified of the availability of the EA/draft SOFs for review: U.S. Environmental Protection Agency, Federal Emergency Management Agency, Texas General Land Office, Texas Parks and Wildlife, Texas Historical Commission, Railroad Commission of Texas, State Coastal Zone Management Administrators, U.S. Fish and Wildlife Service, and U.S. Army Corps of Engineers. Notification of the availability of the EA and draft SOFs posted on the NPS PEPC website were also sent to members of the Texas Congressional delegation, appropriate State government representatives, BNP Petroleum Corporation, Mr. Don Patterson, President of the Tonkawa Tribe, and two National Parks with oil and gas concerns: Big Thicket National Preserve, and Lake Meredith National Recreational Area. Notification of the availability of the EA and draft SOFs on the NPS PEPC website were also sent to the Sierra Club Regional Director, Lone Star Chapter of Sierra Club, Coastal Bend Sierra Club, National Parks Conservation Association, and Coastal Bend Bays Foundation. No comments were received.

CONCLUSION

As described above, the preferred alternative does not constitute an action meeting the criteria that normally requires preparation of an environmental impact statement (EIS). Implementation of the preferred alternative would not have significant effect on the human environment. Environmental impacts that could occur are limited in context and intensity, with generally adverse impacts that range from localized to widespread, short- to long-term, and negligible to moderate. There are no unmitigated adverse impacts to public health; public safety; threatened or endangered species; historical sites or districts listed, or eligible for listing, in the National Register of Historic Places; known ethnographic resources; or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, major cumulative effects, or elements of precedence were identified. Implementation of the action would not violate any Federal, State, or local environmental protection law.

Based on the foregoing, the NPS has determined that the project does not constitute a major federal action significantly affecting the quality of the human environment and that NEPA therefore would not require the preparation of an EIS.

36 CFR 9B Decision. As per 36 C.F.R. § 9.37(b)(2), I hereby conditionally approve the plan of operations, subject to BNP's acceptance of the additional mitigation measures listed in Table 3 which will be applied in the event that certain operational conditions listed in Table 2 require drilling during peak-nesting season for turtles; and subject to BNP's acceptance of the wetlands restoration requirements outlined in the Wetland Statement of Findings which is to be performed prior to or at the time of implementing the preferred alternative. The approved conditioned plan will serve as BNP's permit to access the park and conduct the operation.

Use of Water

Drilling the ST 991 #1, Dunn McCampbell 12A, and Dunn McCampbell 11A wells will require the use of approximately 315,000 gallons of water. BNP proposes to utilize the existing A8 water well on the wellpad for this purpose. The NPS's Nonfederal Oil and Gas Rights Regulations, at 36 CFR § 9.35 state:

No operator may use for operations any water from a point of diversion, which is within the boundaries of any unit unless authorized in writing by the Regional Director. The Regional Director shall not approve a plan of operations requiring the use of water from such source unless the operator shows either that his right to the use of the water is superior to any claim of the United States to the water, or where the operator's claim to the water is subordinate to that of the United States that the removal of the water from the water system will not damage the unit's resources. In either situation, the operator's use of water must comply with appropriate State water laws.

BNP's claim to the water is subordinate to that of the United States. The environmental analysis supports that the use of approximately 315,000 gallons of fresh water from the park would not damage the unit's resources. BNP's use of water will comply with appropriate State water laws. I hereby approve BNP's use of the fresh water from the park for drilling the ST 991 #1, Dunn McCampbell 12A, and Dunn McCampbell 11A wells as described in the plan of operations and environmental assessment.

Approved: _____

Michael D. Snyder
Michael D. Snyder
Regional Director, Intermountain Region

11/24/01
Date

Table 1. Mitigation Measures under the Preferred Alternative.

Number	Mitigation Measures	Reference
Natural and Cultural Resources and Visitor Experiences		
1	If appropriate, directional drilling from an upland location will be encouraged and access roads and flowline routes will be selected to minimize direct impacts on park resources. The location and size of the well pad will be situated so that it is suitable for drilling to multiple targets and eliminates the need for additional well pads.	Section G, Item 1, page 12; Section G, Item 2, page 12; Section G, Item 3, page 12
2	Heavy equipment (vehicles larger than a 1-ton pick-up truck or any size pick-up truck with a trailer) will not be operated on Holiday weekends including Memorial Day, July 4 th , and Labor Day.	OGMP, pages 1-15 and 2-46
3	If an unknown cultural resource is discovered during approved operations, and such resource might be altered or destroyed by the operations, the operator will immediately cease activity in the immediate area and notify the Superintendent before continued any operations.	Section G, Item 9, page 13
4	Culverts will be installed where fill may directly affect surface water run-off and flow. Culvert locations will be approved by the NPS and selected to minimize alteration of natural surface drainage patterns and will be placed at an adequate depth to fulfill their function of maintaining hydrologic flow.	OGMP, page 2-58
5	All compressors used during production operations will be equipped with hospital mufflers or similar technology and be oriented so that the exhaust faces away from the prevailing southeast wind direction.	Section G, Item 31, page 15
6	The operator will plant NPS-approved native vegetation around the production facility to minimize visual and audible impacts on visitors and provide habitat.	Section G, Item 24, page 15
7	Vegetation growth within the facility and along the access road will be mowed frequently to a height of four to six inches to minimize threats from wildfire. Herbicide or pesticide use must be approved by the Superintendent before their use.	Section G, Item 28, page 15
8	The operator will make every effort to conduct operations outside of the summer season (April 1 through August 31) in order to avoid disturbing sea turtle nests and nesting activity and impacting the park's visitors.	Section G, Item 7, page 13
9	Heavy equipment and convoys will conduct all driving above the Gulf beach "wet line" to prevent excessive erosion, crushing of benthic invertebrates, impacting endangered or threatened species, and prevent disturbances to shorebirds.	Section G, Item 5, page 12
10	All operations will be setback 500 feet from the Gulf Beach dune line and other light-sensitive areas. Lights will be shielded and directed at the rig work area itself to meet human safety requirements.	Section G, Item 14, page 14;
11	All open-topped tanks and/or secondary containment areas will be covered with netting or other covering with all seams completely enclosed and netting falling no further than 3-inches below the top of the containment. All open-vent exhaust stacks on production equipment will be constructed in a manner that prevents birds and bats from entering or perching.	Section G, Item 15, page 14; Section G, Item 22, page 15
12	Sea turtle awareness training will be provided by the NPS to all	Section G, Items 3

Number	Mitigation Measures	Reference
	operation employees and contractors and will include track identification, notification protocols, and how to mark tracks or nest area if they are unable to stay on site until NPS personnel arrive.	and 4, page 12; and, Item 48, Page 17; FEIS, 5-11(9)
13	The operator will hire vehicle monitors that will escort all heavy equipment (vehicles larger than a 1-ton pick-up truck or any size pickup truck with a trailer) traveling to and from the well site. They will report all violations of the mitigation measures or conditions of approval immediately to the NPS.	Section G, Item 7, page 13
14	The operator will educate all employees and contractors regarding the need for, and ways and means of, minimizing disturbances to the land, natural and cultural resources, wildlife, and visitors at Padre Island National Seashore. Operator will print a list of conduct and operating procedures, approved by Padre Island National Seashore, while working within the park to be reviewed by all operation related personnel before they begin work inside the park.	Section G, Items 3 and 4, page 12; and, Item 48, Page 17
Safety		
15	All ATV operators will be required to wear personal safety equipment identical to that which is required of NPS staff. This includes helmet, gloves, and orange safety vest, closed-toe shoes that cover the ankle, eye protection, long sleeve shirt, and long pants. Operator will provide the NPS with proof that these individuals have completed a current ATV safety Rider Course prior to operating an ATV in the park.	Section G, Item 48, page 17
16	In preparation for a hurricane event, the operator will secure all surface and sub-surface equipment in accordance within the park Hurricane Preparedness Plan and as outlined in the operator's Plan of Operations.	Section O, Part 5
17	The operator will have in place fire suppression equipment and will maintain it in serviceable condition at all times.	Section G, Item 30, pages 15
18	The operator will maintain the access road using a maintainer when needed to keep the road passable and minimize the potential of vehicles driving off the road and into undisturbed habitats. The use of bull rock will not be allowed on roads within the park.	Section G, Item 47, page 17
19	The operator will not be allowed to store unused equipment or debris at the site. Any unused or surplus equipment must be removed from the park immediately. Debris such as cardboard boxes, garbage, buckets, etc. must not be stored at the site and must be brought in on an as needed basis.	Section G, Item 36, page 16
20	During construction and drilling, the operator will utilize a dispatcher stationed outside of the park to regulate the flow of traffic into the park and along the beach. The operator will employ an onsite "Beach Manager" to coordinate and control all operation activities within the park. The dispatcher will maintain logs of all personnel entering the project and will supply copies of the log to park staff when requested but at least weekly. Data to be collected on the vehicle log will include purpose of trip (sales, delivery, etc.), type of vehicle (pickup, vacuum truck, flatbed, etc.), gross vehicle weight for vehicles classified as heavy equipment, type of equipment (compressor, drilling structure, etc.), and site destination (Peach, A4, etc.). The dispatcher will provide this to	Section G, Item 49, page 17

Number	Mitigation Measures	Reference
	NPS staff when requested but at least on a weekly basis. The dispatcher will provide each driver a copy of Operator/Padre Island National Seashore requirements for vehicle operations, environmental concerns, and public safety while operating in the park.	
21	A bulldozer will be used throughout the drilling operation to assist vehicles in the transportation of personnel, services, and materials where needed. A maintainer will be on-site to smooth out any rutting that may occur.	Section G, Item 16, page 14
22	A temporary, three-strand, barbed-wire fence will be placed around the perimeter of the pad during drilling and completion operations. If the well enters production, a gate and permanent chain link fence will be installed around the well and production facilities of a design specified by the Superintendent.	Section G Item 18, page 14
23	If drilling or production operations are suspended for 24 hours or more, but less than 30 days, the pipe rams will be closed and locked, and at least one safety valve installed in the top of the drill pipe and closed. If suspended for 30 days or more, a backpressure valve will be installed in the tree, the tree gate valves will be closed, and the valve handles will be removed.	Section G, Item 34, page 16; Section G, Item 35, page 16
24	Heavy equipment is limited to 20 vehicles each day, a speed limit of 15 mph or less, no traveling at night, and shall be scheduled in a manner that facilitates caravanning. The drilling crew will utilize an operator-provided shuttle service to transport crews to and from the site to decrease vehicular traffic on the beach.	Section G, Items 7 and 49, pages 13 and 17
25	Consumption of alcoholic beverages or illegal drugs will not be allowed or tolerated on operations located within the park. If evidence of these activities is discovered during an inspection, the operator will be notified immediately and will be required to provide the NPS with a plan on preventing this activity in the future.	Section G, Item 48, page 17
Contamination		
26	Collection and sampling of soils, surface water, and ground water will be performed following NPS protocols as listed in the 2006 Operator's handbook, prior to the start of construction, to establish baseline conditions, and at the completion of operations, to determine if contaminating substances are present in concentrations that pose a threat to wildlife populations or human health, or will jeopardize reestablishment of native vegetation.	Section G, Item 42, page 16
27	A Contamination or Toxic Substance Spill Control Plan shall be included as part of the Plan of Operations to describe actions to be performed in the event of an oil spill, brine spill, release of drilling fluids, blow-out, or release of any toxic substance.	Section G, Item 38, page 16
28	Should contaminated soils be found, the contaminated soil will be excavated to clean soil and removed to a state-approved off-site disposal facility where applicable. The excavation will be filled with clean native soil. If necessary, contaminated soils will be remediated on-site using NPS-approved remediation methods.	Section G, Item 43, page 17
29	A 20-millimeter thick polyethylene protective liner will be placed on the pad area and a 3-foot high earthen material berm, which will also be lined, will be constructed around the perimeter of the pad for emergency containment and prevention of downward movement of fluids through the soil from reaching the groundwater.	Section G, Item 15, page 14.

Number	Mitigation Measures	Reference
	Construction of a moat or barrow ditch will not be allowed around the pad perimeter.	
30	A corrugated galvanized steel cellar will be placed around the well. Drainage ditches will be dug to route all runoff to the cellar for collection and removal. The cellar will be filled upon completion of drilling activities in an NPS approved manner that will allow the operator to continue monitoring the production casing - surface casing annulus for pressure buildup.	Section G, Item 13, page 13
31	Well control equipment will be installed and include a blowout preventer and a choke manifold equipped with a hydraulic, remote-controlled, and adjustable choke.	Section G, Item 17, page 14
32	The operator will utilize an environmentally safe, synthetic, oil-based drilling mud for drilling the well to reduce water usage, beach traffic, and operational time. Lost circulation mud additives will be used to prevent and control lost circulation, reducing the time needed to drill.	Section G, Item 11, page 13; Section G, Item 12, page 13
33	All flammable liquids (i.e. condensate, compressor oil, etc.) will be labeled, stored in steel or fiberglass tanks, and contained inside the firewall or berm at the central facility. All materials not necessary for the immediate operation of the well will be removed. Any surplus or emergency materials or supplies that need to be kept at the well site will be stored at the central facility in a locked storage shed or parts box. All containers will be labeled as to their contents.	Section G, Item 36, page 16
34	A closed loop "zero discharge system" or similar technology will be utilized for drilling the well. No earthen pits will be approved. All mud, drill cuttings, sewage, produced water, etc. will be collected for disposal at state-approved disposal facilities outside of the park boundaries, or disposed down the well annulus. Where feasible, excess materials and drill cuttings will be stored on the drill location in order to coordinate the removal of such materials.	Section G, Item 18, page 14
35	Standard oil field technologies will be applied to prevent leaks and spills of hydrocarbons and produced water including: pressure relief valves, hi-lo safety shut-off actuators, liquid level controls, and cathodic protection.	Section G, Item 10, page 13
36	A berm with an impermeable liner will be constructed around all tank batteries, and designed to contain 1.5 times the volume of the largest tank.	Section G, Item 21, page 14
37	All produced water will be stored in closed top fiberglass tank(s). The water will be transported to an off-site, state-approved disposal facility by vacuum truck.	Section G, Item 20, page 14
38	For all releases of contaminating or toxic substances, the operator will promptly report the initial spill information to Padre Island National Seashore according to their Contamination or Toxic Substance Spill Control Plan within their Plan of Operations.	Section G, Item 38, page 16
Reclamation		
39	The operator will cut, bale, and store vegetation before ground-disturbing activities occur. This vegetation will be used in mulching and native seeding activities during reclamation/re-vegetation. All equipment will be washed off and cleaned of mud/soils/plant debris before entering the park to reduce potential introduction of non-native seed/pests into the park.	Section G, Item 44, page 17; Section G, Item 8, page 13

Number	Mitigation Measures	Reference
40	Reclamation of the site will begin after completion of operations and no later than six months unless authorized by the Regional Director. The operator will reduce the pad size following drilling operations as feasible for production operations. All imported fill materials and liners used to construct the access road and pad will be hauled offsite. All disturbed areas, including rutting deeper than one inch, will be re-contoured and re-vegetated.	Section G, Item 38, page 16; Section G, Items 39 & 40, page 16
41	Some soils and sands from outside Padre Island National Seashore, but on Padre Island, may be hauled in to achieve pre-project contours or to restore any spill clean-up areas. Such soils and sands will be similar in character to pre-project soils and sands with regard to particle size, contaminants, certified weed-free, and approved by the Superintendent before purchase/use to minimize the potential for invasive species.	Section G, Item 32, page 15
42	Native vegetation harvested and baled before operations begin or at seasonally optimal times during operation will be used to reclaim disturbed areas. Successful re-vegetation will be reached when 70 percent coverage of targeted species is achieved. Herbicide application or hand-tool removal will be used to control invasive plant species in the reclamation area, as approved by the Superintendent.	Section G, Item 44, page 17; Section G, Item 45, page 17; Section G, Item 46, page 17
Operational		
43	To the extent possible, with respect to rig scheduling and availability, the operator will use a diesel electric rig or similar rig to drill the well so that impacts on the natural soundscape are minimized.	Section G, Item 6, page 13
44	The operator will provide the park with daily drilling logs to allow NPS petroleum engineers to track the progress of the well.	Section G, Item 26, page 15
45	Signs will be posted at the entrance of the access road, on the well tree, and on the tank battery giving operator name, lease name, well number, API Number, and Railroad Commission of Texas identification number.	Section G, Item 33, page 15
46	During production, the operator will check the facilities daily and notify Padre Island National Seashore personnel of problems or observations. The operator will check supply gas pressure daily by use of a hi-lo pressure sensor. Should system pressure go above or below the safe range of operating pressure set by a technician, the sensor will trip a relay that actuates the safety valve, shutting in the well.	Section G, Item 27, page 15; Section G, Item 26, page 15
47	The well will be plugged in compliance with Federal Onshore Oil and Gas Order No. 2 and Railroad Commission of Texas requirements.	Section G, Item 39, page 16
48	The Superintendent of Padre Island National Seashore, or his representative, shall have reasonable access to the operations as necessary to properly monitor and insure compliance with the conditions of the plan of operations under the provisions of 36 CFR §9.37(f).	36 CFR §9.37(f).
49	The approval of the Plan of Operations will be conditioned upon the operator tendering a performance bond not to exceed \$200,000 for operations by a given operator within a unit of the National park System. The regulations limit the liability amount for the operation of a single well to \$50,000.	36 CFR §9.48(a-f).

Number	Mitigation Measures	Reference
50	The operator is responsible for all damages to the park's paved road surfaces due to trucks carrying construction and drilling equipment because these roads were not constructed for heavy industrial equipment and loads. Typical repairs include road resurfacing, site preparation, pack coat, and seal and chip. Damages will be determined based upon wear to the road or on a per vehicle basis.	36 CFR §9.50(c).
51	The wellhead and all production equipment will be painted a neutral, earth-tone color, such as Sherwin Williams Burlap, or a similar NPS approved color, to blend with the natural environment.	Section G, Item 25, page 15

Table 2. Operational conditions that may require drilling during peak-nesting season

Number	Possible Operational Conditions
1	The well(s) to be drilled by the operator is of such depth or complexity that in the operator's estimation operations associated with the mobilization for and drilling, testing, and completion of the well will last for a period of time in excess of 240 days provided that the drilling operation begins close to the end of the peak sea turtle nesting season. The operator must demonstrate and document to the NPS the reason why the drilling operation cannot be completed within the 240 days instead of merely stating that the operation cannot be completed. Drilling operations will be scheduled in such a manner that will not cause drilling to extend into the peak sea turtle nesting season.
2	The operator commences operations associated with drilling a well prior to the peak sea turtle nesting season with an expectation that such drilling operations will be completed prior to such season, but delays associated with such operation prohibit completion of the well prior to the peak sea turtle nesting season. Delays that may give rise to the need to conduct operations within this timeframe shall include, but shall not be limited to, weather delays, delays in drilling due to downhole drilling difficulties or unforeseen circumstances encountered while drilling, any delays associated with governmental action prohibiting operations, delays attributable to the actions of third parties such as riots, terrorism, strikes, vandalism, or similar action that disrupts the operator's authorized activities.
3	The operator is prohibited by the NPS or any other federal or state governmental agency from conducting operations for any period of time in excess of 14 consecutive days outside of the peak sea turtle nesting season if the reason that the operator is not allowed to operate is not the fault of the operator.
4	The operator is unable to schedule a drilling rig capable of drilling the well in question and meeting all requirements of the operator's Plan of Operations at any time other than the peak sea turtle nesting season. The operator will demonstrate and document to the NPS the reason that a drilling rig needed for the operation cannot be obtained prior to the peak sea turtle nesting season.
5	The NPS fails to issue a permit granting the operator authorization to conduct drilling operations associated with a Plan of Operations submitted by the operator and accepted as substantially complete by NPS within six (6) months of the date the Plan of Operations is accepted as substantially complete by NPS. The operator will provide the necessary Plan of Operations to the NPS prior to April 1 of a given year in order to ensure that enough time exists for the issuance of a permit.
6	The oil and gas lease(s) covering the drilling operation will terminate unless the operator conducts drilling operations during the peak sea turtle nesting season, and such lease termination is not the result of avoidable delays by the operator in prosecuting operations authorized by such lease.

Table 3. Additional mitigation measures necessary if drilling occurs within the peak sea turtle nesting season.

Number	Concern	Mitigation Measure
1	Sea Turtles	An NPS trained monitor will patrol the beach at the beginning of each day and prior to any convoy of trucks driving to or from the drilling location in order to identify any possible nesting that may have occurred at night or in the early morning hours.
2	Sea Turtles	An additional ATV monitor trained by the NPS to observe and detect nesting sea turtles, will be utilized in front of and behind each convoy to insure that all trucks in such convoy maintain proper spacing and speed while driving on the beach. They will report all violations of the mitigation measures or conditions of approval, as well as all sightings of, and incidents involving, sea turtles or their nests, eggs, hatchlings, or tracks, immediately to the NPS.
3	Sea Turtles	The operator will employ one or more additional maintainers or similar equipment that will immediately repair ruts caused by the operator's vehicles. Each maintainer or similar equipment will have an NPS turtle trained ATV monitor.
4	Sea Turtles	Where feasible, excess materials and drill cuttings will be stored on the drilling location in order to delay the traffic associated with hauling such materials.