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05/06/02 05:59 PM
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Please respond to
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To: <Arlene_Wimer@nps.gov>, "Jock Whitworth"
<Jock_Whitworth@nps.gov>, <Ken_McMullen@nps.gov>
cc:
Subject: Amendment to Sierra Club Comments

Jock, Ken and Arlene-

I forgot to attach the photos referenced on page 3 of our comments when I sent our comments in. I hope that it's not a problem to accept these. I also plugged in a footnote at the appropriate spot listing the titles of the photos and the date and time they were taken.

Thank you.

Fred Richardson

----- Message from "JFrench" <jfrench@stx.rr.com> on Tue, 23 Apr 2002 11:09:28 -0500 -----

To: "Fred Richardson" <fred.richardson@sierraclub.org>

Subject: Pix 0012



P4220012.JPG

----- Message from "JFrench" <jfrench@stx.rr.com> on Tue, 23 Apr 2002 12:57:41 -0500 -----

To: "Fred Richardson" <fred.richardson@sierraclub.org>

Subject: Pix 0026



P4220026.JPG

----- Message from "JFrench" <jfrench@stx.rr.com> on Tue, 23 Apr 2002 13:03:58 -0500 -----

To: "Fred Richardson" <fred.richardson@sierraclub.org>

Subject: Pix 0029



Caravan of company trucks meeting and passing other beach goers. P4220029.JPG Truck.JPG



Sierra Comments on Lemonseed.Fin



PIX 0012



P17 0026



PIX 0029

NPS DOCUMENT # 534



Truck.jpg



Lone Star Chapter of the Sierra Club

Comments to Padre Island National Seashore, U.S. National Park Service
Re: ENVIRONMENTAL ASSESSMENT - BNP PETROLEUM CORPORATION
LEMON/LEMON SEED UNIT WELLS NO. 1-1000S AND NO. 1-1008S; &
STATEMENT OF FINDINGS FOR EXECUTIVE ORDER 11990 (PROTECTION OF
WETLANDS) [SOF for EO 11990]; &
STATEMENT OF FINDINGS FOR EXECUTIVE ORDER 11990 (PROTECTION OF
WETLANDS) [SOF for EO 11990]

Summary

The U.S. Park Service has not adequately considered the impact of drilling operations, in particular the adverse impact on endangered sea turtles. The Park Service has therefore failed to satisfy the requirements of the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA).

Moreover, the EA for Lemon/Lemon Seed, like the EA for Dunn-Murdock, fails to properly account for the impact of drilling operations on visitor experience, both in the short and long term. The conclusions drawn for Lemon/Lemon Seed about the impact of the drilling operations are inconsistent with visitor comments about operations on Dunn-Murdock. Many visitors indicated that the impact of heavy truck traffic was significant, and some indicated that they would not visit the park again under conditions present during drilling operations. Based on information provided by NPS and BNP Petroleum, it is reasonable to expect that heavy truck traffic and destruction of dune habitat in support of BNP's "aggressive drilling campaign" would be nearly continuous for the next five to seven years. The Sierra Club believes this will have a long-term and severe adverse impact on visitor experience, and therefore constitutes an impairment that is prohibited by the National Park Service Organic Act and the General Authorities Act. At the very least, those impacts require full consideration in an Environmental Impact Statement (EIS).

In these respects and many others, the EA for Lemon/Lemon Seed, like the EA for Dunn-Murdock, fails to adequately account for the cumulative impacts of the 15 or more separate drilling operations that BNP is expected to propose. In this EA and all future ones, the park should explicitly consider the cumulative impacts of the entirety of BNP's proposed drilling campaign on all of the resource categories that must be reviewed pursuant to the statutes listed above. Again, this requires NPS to prepare an Environmental Impact Statement.

Impacts on Sea Turtle Populations Program

The express purpose of Congress in creating Padre Island National Seashore (PAIS) was to preserve the seashore in its undeveloped, natural state. The undeveloped natural seashore is the primary reason that the Padre Island National Seashore is so important to endangered sea turtles, most notably the Kemp's ridley.

The Kemp's ridley sea turtle is the most endangered species of sea turtle in the world. This ancient creature once nested by the tens of thousands on the beaches of the Gulf of Mexico. Human depredation, coastal development, mortality from fishing practices and other causes have now left only a remnant of the Kemp's ridley population in existence, and the majority of them nest at a single site near Rancho Nuevo in the Mexican state of Tamaulipas. Padre Island National Seashore is one of the few places in the United States where consistent nesting by the Kemp's ridley has been documented. Padre Island is so important a location for the survival of the Kemp's ridley that the federal government has gone to great lengths to augment the nesting colony. During the last two decades more Kemp's ridley nests have been documented at PAIS than at any other location in the United States. In addition, at least one other endangered sea turtle, the Loggerhead, is documented to regularly nest at PAIS. The nesting season at PAIS is from March to October.¹

Like all sea turtles, the Kemp's ridley nests by digging a depression in the sand, in which a clutch of eggs is laid. Through auditory, olfactory and other cues the Kemp's ridley is "imprinted" with the beach on which it was hatched, and returns to that beach to nest. The primary known nesting beach for the Kemp's ridley is called Rancho Nuevo, and it is located in the Mexican state of Tamaulipas. A 1947 film documents the

¹ "Sea Turtles" (June 1998). U.S. Fish & Wildlife Service. www.fws.gov.

nesting of as many as 40,000 adult female Kemp's ridley at Rancho Nuevo. Unfortunately, by the 1960's collection of turtle eggs and meat for food, death in fishing trawls, and development of coastal beaches had reduced nesting females to a small fraction of their previous number, and by the 1980's only 1000 or fewer nesting females were left. These numbers have risen slightly in the past few years, but the Kemp's ridley remains the most endangered sea turtle in the world. It was listed as endangered under the then-version of the federal Endangered Species Act in 1970, and has remained listed since that time.

Although the primary nesting site for the Kemp's ridley is Rancho Nuevo, North Padre Island and PAIS are critical secondary nesting sites. Nesting has always occurred in these areas, and in 1978 the United States government and the government of the Republic of Mexico undertook a program to augment this secondary breeding population. For the decade 1978-1988 eggs were collected at Rancho Nuevo and transported to the Padre Island National Seashore. The eggs were hatched there, and juvenile turtles were kept on the beach in order to allow them to become "imprinted" before being released. It has been confirmed that these "imprinted" turtles have returned and nested at PAIS, along with other turtles apparently from a population that historically nested at Padre Island. The nesting population at Padre Island is particularly valuable because it provides a "back-up" in the event of a catastrophic nesting failure at Rancho Nuevo due to a hurricane, pollution, or some other event.

Each year Kemp's ridley nests are reported at PAIS. In 2001 three Kemp's ridley nests, along with one Loggerhead turtle nest, were confirmed at PAIS. It is generally agreed that other nests were likely present but not detected by monitoring efforts. Over the past two decades PAIS has consistently had the largest number of Kemp's ridley nests of any single location in the United States. In order to ensure the highest possible survival rate, eggs in these nests are collected, incubated, and the juvenile turtles are then released.

Along with the Kemp's ridley three other sea turtle species are known to nest on the beaches of PAIS. The Green and Hawksbill sea turtles have been known to nest in the area, and the Loggerhead has been consistently documented to nest at Padre Island. Each of these species is also listed under the Endangered Species Act due to threats the creatures' nesting habitat and impacts from fishing practices. The beach at the PAIS also serves as habitat for many species of shorebirds.

When PAIS was established, much of the land was purchased from private owners. Many of these owners retained the mineral rights underlying the property, and have the rights, subject to the restrictions posed by state and federal law, to explore for and produce oil and gas. The NPS retains control over surface operations in the park area, however, and is obligated to insure that operations in the park do not violate federal laws. The U.S. Fish and Wildlife Service is also obligated, through carrying out its consultation role under the Endangered Species Act, 16 U.S.C. § 1531 *et seq.*, to review the Park Service's actions to determine whether they will cause harm to listed endangered species.

This EA involves the drilling of an exploratory oil and gas well known as the Lemon/Lemon Seed Unit Wells, within the boundaries of the Padre Island National Seashore. The plan of operations for drilling this well calls for eighteen wheel diesel trucks, as well as a number of other smaller vehicles, to drive 12.5 miles on the beach at PAIS as many as 40 times daily, for a period of 141 days. Truck traffic of this size and volume has, as explained in later sections of these comments, significant adverse impacts on nesting sea turtles as well as other wildlife on PAIS.

Violation of the National Environmental Protection Act

The National Environmental Policy Act, 28 U.S.C. § 4321 *et seq.* ("NEPA"), mandates that federal decision makers consider the environmental consequences of federal permitting decisions, including both the secondary and cumulative effects of proposed projects. Where those impacts are significant, NEPA requires preparation of environmental impact statement, providing fuller evaluation of the action and its impacts—and critically—considering alternatives to the proposed action. In the EA for Lemon/Lemon Seed, prepared by BNP Petroleum and Belaire Environmental Inc, NPS has failed to adequately disclose and consider the impacts on endangered sea turtles and other wildlife of drilling these gas wells. In particular, NPS has failed to analyze the impacts of truck traffic during sea turtle nesting season. This failure on the part of NPS violates the National Environmental Policy Act and the National Park Service Organic Act.

Section 3.8 of the EA, "Impacts on Wildlife," contains no mention of the Kemp's ridley or any other sea turtle. The section concludes that the operation would "result in short to long-term, minor adverse impacts, on wildlife. Cumulative impacts would be short- to long-term, minor adverse impacts, localized around park and oil and gas developments. No impairment to wildlife would result from implementation of this alternative."

The proposed operation is likely to begin June and continue for 141 days, well into the height of the Kemp's ridley nesting and hatching season. (The operations will occur in high summer, despite the fact that the EA repeatedly states that operations will take place in the "late spring months.") Nevertheless, the EA contains no discussion or analysis of the actual impacts of the truck traffic and other activity associated with the drilling of the Lemon/Lemon Seed wells on the endangered sea turtle species that use the beach at the Padre Island National Seashore for nesting. These impacts include the following:

- a) Interference with the mating process through introduction of noise and night-time activity.
- b) Interference with the "imprinting" process through noise, vibrations, smells, and light pollution;
- c) Direct injury to sea turtles, egg clutches or hatchlings;

"Vehicles running over nests may harm egg development."²

- d) Obstacles to hatchlings safely reaching the ocean;

Vehicles on the beach can leave tire tracks in the sand deep enough to prevent hatchlings from taking a direct route from the beach to the ocean and leaving them vulnerable to depredation, desiccation and exhaustion. Interference with the "imprinting" process through noise, vibrations, smells, and light pollution;³

- e) Creation of obstacles to sea turtle nesting in the form of sand compaction and rutting;

Both rutting and compaction can interfere with, and ultimately prevent, successful nesting by sea turtles. Attached are several pictures⁴ demonstrating the deep ruts and compacted sand resulting from operations substantially similar to those proposed at Lemon/Lemon Seed, at the Dunn-Murdock Well. Sea turtles, especially smaller ones like the Kemp's ridley, may be unable to cross heavy ruts. The effects of compaction have been described in a recent scientific paper, "Beach Renourishment and Loggerhead Turtle Reproduction: A Seven Year Study at Jupiter Island, Florida" (1998). The study found that Loggerhead females placed significantly fewer nests on renourished beaches than on the control, non-renourished beach. Several correlates were found, including a positive correlation between abandoned nesting attempts and greater surface hardness of the renourished beach:

Replaced sand is usually "harder" (more resistant to shear) than natural sand (Crain *et al.* 1995). Harder beaches can result in a nest cavity of inappropriate size or depth, or (under extreme circumstances) prevent females from digging a nest chamber (Ehrhart & Raymond, 1983; Nelson & Dickerson, 1989; Ryder, 1993; Carthy, 1994). Even if nesting occurs, embryonic development may be adversely affected if sands are insufficiently permeable to oxygen, too dry, or too moist (Ackerman, 1980; Mortimer, 1990; Ackerman *et al.*, 1992).⁵

² "Sea Turtles" (June 1998). U.S. Fish & Wildlife Service. www.fws.gov: "Vehicles running over nests may harm egg development."

³ "Sea Turtles" (June 1998). U.S. Fish & Wildlife Service. www.fws.gov.

⁴ See attached photos: 1) "Truck rut #1," May 6, 2002, 5:28 pm; 2) Truck rut #2, May 6, 2002, 5:31pm; 3) "Many trucks & cars," May 6, 2002, 5:34pm; 4) "Truck," May 6, 2002, 5:34pm.

⁵ "Beach Renourishment and Loggerhead Turtle Reproduction: A Seven Year Study at Jupiter Island, Florida" (1998). Steinitz, Salmon and Wyneken. *Journal of Coastal Research*, Vol. 14, No. 3.

The positive correlation found between sand compaction and abandoned nesting attempts by the Loggerhead should be a red flag to NPS, but NPS makes no mention of these findings in the EA. The results of this study should have been included in the scoping done in consultation with USFWS, and USFWS should have provided NPS a formal consultation that included a review of these findings.

The findings show a direct threat posed by the heavy trucks to nesting Loggerhead turtles, and the cautionary principle dictates that NPS should assume that truck compaction of the sand on Padre Island would have an equally detrimental impact to the Kemp's ridley.

The fact that the impact of heavy trucks is substantially greater than ordinary passenger vehicle traffic on the beach is made explicit in the Lemon Seed EA. In Section 2.2, "Conditions of Approval," page 25, the EA says:

Damage to paved surfaces due to trucks carrying construction and drilling equipment will be assessed. BNP will be charged for the cost of repair of these surfaces because these roads were not constructed for heavy industrial equipment and loads.

In short, the results of the Juniper Island study, which were readily located by the Sierra Club with minimal effort, clearly demonstrate the need for NPS to produce an EIS for the Lemon/Lemon Seed operations and a formal consultation with USFWS on the impact to sea turtles.

Failure to Analyze Impacts and Alternatives

According to the EA, NPS and BNP have agreed to mitigation measures—primarily, the use of monitors—which, if carried out, the NPS expects to avoid and/or minimize impacts to park resources, including sea turtles. Those measures, however, do not fully mitigate the impacts listed above. First, monitors have historically not succeeded in recognizing and locating all nesting turtles. Second, the proposed mitigation measures do nothing to reduce impacts from rutting, sand compaction, interference with imprinting, interference with mating behaviors, or the other impacts described above. Moreover, the EA does not identify how NPS is prepared to monitor compliance with those conditions, nor does it explain what recourse NPS would have should BNP fail to comply. The EA should verify that NPS has committed the staff power and other resources to enforce the conditions upon which it relies to reach the repeated conclusions that the proposed project will not impair the environmental resources of the park. Furthermore, the EA should explain the circumstances under which BNP's permit for the project would be revoked for violating the agreed-upon conditions and/or causing more environmental damage than can be covered by the statutorily-limited bonds BNP is required to provide.

The EA for the Lemon/Lemon Seed Wells thus fails to include a full discussion of the impacts of the proposed federal action, including all direct, indirect and cumulative impacts. 40 C.F.R. § 1508.9.

Because the EA does not consider the substantial adverse impacts on endangered sea turtles of truck traffic associated with the drilling of the Lemon/Lemon Seed wells, NPS's conclusions that the EA adequately considers environmental impacts, that an EIS is not required, and that the mitigation proposed is sufficient to ameliorate the adverse impacts of the project is not in accordance with law.

NPS is further required to consider all reasonable alternatives to the proposed action. NPS has not, however, considered the reasonable alternative of restricting truck traffic on sea turtle nesting areas to the winter months, when turtles would not be impacted. Nor has NPS considered the need to have BNP hire a trained turtle biologist to directly oversee their operations.⁶ Indeed, NPS has considered no alternatives

⁶ Indeed, absent consideration of more protective alternatives and, at a minimum, some discussion of why they have not been adopted, the NPS cannot rationally conclude that operations at the Lemon and Lemon-Seed Wells will "be conducted in a manner which utilizes technologically feasible methods least damaging

beyond "no action" and approval of BNP's proposed plan of operations. This failure to consider reasonable alternatives is arbitrary, capricious and contrary to law.

An egregious error on the part of NPS, BNP Petroleum and Belaire Environmental Inc. in producing the EA was the complete failure to consult with the U.S. Geological Survey's (USGS) turtle biologist at PAIS. Section 4.0 of the EA, "Consultation and Coordination," shows that Ms. Donna Shaver, director of the USGS turtle population program at PAIS, was not consulted prior to completion of the EA. Nor was Ms. Shaver consulted on the EA for Dunn-Murdock Well #1. Given the decades of work and considerable resources invested in the turtle population program by the Federal Government, it is extraordinary that Ms. Shaver was not consulted, either formally or informally. This failure calls into question the integrity of EA.

The failure to consider better alternatives for protecting sea turtles on PAIS is also inconsistent with the willingness of NPS to accept alternatives that were obviously recommended by BNP/Belaire Environmental Consultants in the EA. NPS appears to have accepted certain recommended alternatives simply because they were in the best financial interests of BNP, with no mention made of environmental considerations. For example, in Section 2.3, "Alternatives Considered but Dismissed from Further Analysis," page 26, the EA states that alternative locations were considered for siting the proposed well pad, but dismissed for various reasons. Regarding the "Southern Alternative," 3000 feet south of the proposed location, the EA says: "This southern location alternative would bring about complications with hitting multiple bottom-hole targets. For this reason, the southern alternative was dismissed."

The Sierra Club wonders why the southern alternative was considered to begin with, whether the southern alternative might have avoided impacts to wetlands, and why no mention of those considerations is made in the EA. Sadly, the EA summarily dismisses threats to sea turtles, and yet displays a bias towards the financial priorities of BNP. NPS would do well to remember that while the organic statute of PAIS allows for access to explore and produce subsurface minerals, NPS is also 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. Under NEPA, NPS is required to fully consider the least-impact alternatives for oil and gas operations, with a bias towards adopting those least-impact alternatives. In this EA, NPS has failed to recommend a number of alternative actions that would have a lesser impact than the recommended alternative, and it has allowed certain alternatives to be summarily dismissed from consideration solely because those alternatives would not be most profitable for BNP. *NPS is not required by law to ensure that BNP maximizes profit. It is required by law to provide the maximum protection possible to endangered and threatened species, such as the Kemp's ridley turtle, as well as park resources and values, such as visitor experience.*

Violation of the Endangered Species Act

Under the Endangered Species Act and its implementing regulations, NPS is required, in consultation with the U.S. Fish & Wildlife Service (FWS), to examine the impacts of its actions on species protected by the Act. 16 U.S.C. § 1536(a) & (b). FWS is required to use the best available scientific and commercial data to carry out its obligation to consult with federal agencies to determine the effects of their actions on listed species, and to describe the impacts of the action in a "biological opinion." Such an opinion, and formal consultation, is required for any federal action that "may affect" listed species, 50 C.F.R. § 402.14(a). The ESA's implementing regulations contain a narrow exception to the requirement of formal consultation, if the action agency determines that the proposed action is "not likely to adversely affect" any listed species, and FWS concurs in that determination. 50 C.F.R. §§ 402.13 & 402.14(b)(1).

NPS has violated the Endangered Species Act by failing to initiate formal consultation with regard to the Lemon/Lemon-Seed Wells. As set forth above, and in the Sierra Club's notice letter of April 26, 2002, the Lemon/Lemon-Seed Wells pose adverse effects requiring full consultation. Those effects are all the more marked when considered in conjunction together with the cumulative impacts of the other drilled and

to the federally-owned or controlled lands, waters and resources of the unit while assuring the protection of public health and safety." 36 C.F.R. § 9.37(a). Approval of the Lemon and Lemon-Seed Wells, absent such a finding, violates the National Park Service's Organic Act.

proposed wells on the National Seashore. NPS' determination of "no adverse effect" is, accordingly, in error, and fails to use the best available scientific information.⁷

Impacts to Visitor Experience

Impacts on visitor experience that are long-term and severe, and therefore constitute an impairment, are prohibited by the National Park Service Organic Act and the General Authorities Act.

PAIS' "Oil & Gas Management Plan" (March 2001) correctly states that the impact to visitor experience could be considered significant or major if "oil and gas operations would alter the physical setting by introducing unwanted visual contrast to the landscape, intrusive noise, smells, or lighting that would be noticeable to the casual viewer and would interfere with the visitor experience." Park visitors have already complained that truck traffic in support of the Dunn-Murdock operation has severely impaired their experience and enjoyment of the park. But the Lemon/Lemon Seed EA finds that the impact of operations on visitor experience will not be major. Indeed, Section 3.9, "Impacts on Visitor Use and Experience," concludes "no impairment to visitor use and experience would result from implementation of this (plan)."

This conclusion is not supported by the facts. Despite the fact that the EA says that operations will occur in the late spring months, park managers have stated the drilling operation would begin in June. According to the EA, operations will last for 141 days. This means that heavy truck traffic can be expected for the duration of June and the entirety of July, August and September. According to the EA, page 44, "July is the busiest visitation month." Therefore, NPS proposes allowing convoys of heavy trucks to travel 12.5 miles south and north along the beach during the height of the turtle nesting/hatching season and the height of visitation.

Section 3.9 minimizes the impact of operations on visitor experience by stating that "a small percentage of visitors that are able to access (the beach area proximate to the well-site) could be adversely impacted by operations."

This conclusion is sophistry. Under the proposed operations, a convoy of trucks will depart from the end of the paved section of Park Road 22 in order to travel south to the well site. In doing so, the trucks will barrel through the portion of the beach close to the end of the paved road that is heavily used by visitors, and is the departure point for all trips south. Moreover, any visitors who are seeking solitude, tranquility, or opportunities for recreation in the 12.5 mile stretch of beach between the end of the paved road and the well site have a high likelihood of their experience being degraded or ruined by the heavy trucks.

Comments indicating serious visitor dissatisfaction with the truck traffic have been found in the press, have been made to park managers, and have been shared with the Sierra Club.

On March 28, Meris Sims, a visitor to PAIS, was asked by a reporter with the *Corpus Christi Caller-Times* her opinion about the truck traffic. She commented, "Would you put your lawn chair in the middle of the interstate?"⁸

Sierra Club members have conveyed to the Lone Star Chapter staff how camping and birding trips on PAIS have been ruined by the truck traffic. Some of Sierra Club members have told us that they will not return to the park as long as the truck traffic continues. Given that BNP's operations could easily continue for five to seven years (assuming, as the EA does, that 18 wells are drilled) it is not credible for NPS to conclude that

⁷ The U.S. Fish and Wildlife Service's concurrence with the National Park Service that "the proposed project would have no effect on federally listed threatened and endangered species or their critical habitat" with respect to the impact on listed sea turtles of the activities associated with the drilling of the Lemon/Lemon Seed wells is likewise arbitrary, capricious and contrary to law, and fails to use the best scientific and commercial information.

⁸ "Searching the seashore." Jason Ma, *Corpus Christi Caller-Times*. March 29, 2002.

BNP's drilling campaign will not have a serious, long-term adverse impact on visitor experience, thus constituting an impairment that is prohibited by the National Park Service Organic Act and the General Authorities Act.

In order to address what most reasonable persons would consider the likely prospect of long-term impairment to the visitor experience, NPS should conduct surveys of visitors to gauge opinions on the truck traffic and the impact on visitor experience. Unfortunately, park managers have told the Sierra Club that they are not collecting records of visitor comments when visitors make complaints about the trucks to park personnel.

In addition to collecting written records of visitor comments and conducting surveys, NPS should evaluate the impact of the truck traffic and other aspects of the Lemon/Lemon Seed operation in an Environmental Impact Statement (EIS).

What is Meant by Impairment?

Mr. Johnny French, formerly with the USFWS, points out that the EA repeatedly makes findings of direct and cumulative damages to the PAIS' resources, then invariably concludes that despite these frequently quantified adverse impacts, each resource will nonetheless suffer "no impairment." In American English impairment is generally defined as damage, so there is a discrepancy between common usage and NPS' usage in the EA. The EA should clarify in objective terms what is meant by its use of the word impairment, and demonstrate that NPS' application of the term in the EA is what was intended by Congress in all laws relevant to this action.

Section 1.2.1, "NPS Organic Act and General Authorities Act," states:

"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 would otherwise 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."

Although Congress sought to permit impairment only by law and in specific instances, the EA's definition of impairment as quoted above thwarts Congress' purposes by making the term "impairment" subjective and unspecific. As a consequence, each time the EA identifies the destruction or diminishment of a park resource or value, the impact is dismissed without explanation as resulting in no impairment. The EA should go back to the usage of impairment which Congress intended, that is, the plain definition found in dictionaries and used in federal courts, and then explain for each identified adverse impact which particular law directly and specifically provides for that impairment to occur.

Use of Water for Drilling

Section 2.2, "Alternative B, Use of Water for Drilling," page 17, discusses the possibility of communication between a water well and well #1008S in the event of a high-pressure gas kick. This possibility is discussed again in Section 3.4, "Impacts on Water Resources and Floodplains-Impacts of Alternative B, Proposal (Preferred Alternative), on Water Resources and Floodplains," pages 36 and 37. Both sections provide technical data that is intended, it seems, to demonstrate the reduced risk of communication by increasing the separation between the casing shoe and the total depth of the water well. But the meaning of the data provided is entirely unclear to the lay reader. The EA should interpret the data for the lay reader, and provide comparable examples of conditions under which communication has or has not occurred.

Another vexing aspect Section 3.4 is the conclusion. While it is noted twice in the EA that communication (contamination) of water and gas is "a concern," and Section 3.4 states that increased separation "may reduce the risk of communication," the section concludes with the statement "No impairment to water resources and floodplains would result from implementation of this alternative." This is an obvious, but not

the only example of the EA concluding that no impairment will occur to the resource when the drilling operations pose a clear threat.

Sand Disturbed by Dune Excavation

In Section 2.2, "Alternative B, Access," page 16, the EA states that BNP would excavate a pass through the dune in order to establish a road to provide trucks access to the well site. The EA should describe where the sand from the initial excavation and subsequent maintenance of the road would be placed, and how would it be stabilized.

Bonding Requirements

Section 2.2, "Alternative B, Conditions of Approval," page 25, discusses the statutory limitation of bonds and liability to \$50,000 for the operation of a single well and a maximum overall bond of \$200,000 for any given operator within a single unit of the National Park System. The EA should discuss who would be responsible for paying for the damage incurred to park property from a catastrophic event, such as a well blowout or a grassfire caused by the proposed action.

Submitted by the Sierra Club, May 6, 2002

Questions about these comments should be directed to:

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