



United States Department of the Interior

NATIONAL PARK SERVICE

Padre Island National Seashore
P. O. Box 181300
Corpus Christi, Texas 78480-1300

IN REPLY REFER TO:

L 3025

April 4, 2002

Dear Friend of Padre Island National Seashore

Please find the enclosed copy of the Environmental Assessment and Statements of Findings for Floodplains and Wetlands analyzing BNP Petroleum Corporation's proposal for the Lemon/Lemon Seed Unit Wells No. 1-1000S and No. 1-1008S within Padre Island National Seashore (NS). The location is approximately 12.5 miles south of the end of Park Road 22 and 900 feet west of the Gulf of Mexico. The National Park Service is asking for your comments on this proposal.

Please send written comments to the address below:

Padre Island National Seashore
Attn: Superintendent/O&G EA
P. O. Box 181300
Corpus Christi, Texas 78480

Comments must be postmarked by May 6, 2002 to be accepted. Comments may also be submitted by e-mail, but must be received at Padre Island by 4 p.m. May 6, 2002. The e-mail address is:

pais_superintendent@nps.gov.

If you have any questions on the environmental assessment and associated documents or need additional information on this action, please contact Ken McMullen, Chief, Science and Resources Management at the above address, or by telephone at (361) 949-8173 ext. 227. We look forward to your involvement.

Sincerely,

Jock Whitworth
Superintendent

Enclosure

Original ED
mailed 11/2
April 9, 2002

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President Tonkawa Tribe
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STATEMENT OF FINDINGS FOR FLOODPLAINS

Introduction

Proposed Action:

BNP Petroleum Corporation plans to drill the Lemon/Lemon Seed Unit Wells No. 1-1000S and No. 1-1008S from the same proposed drill pad. The surface location for Well No. 1-1000S 150,320 feet from the north line and 10082.1 feet from the east line (Boyles Meander Line of the Juan Jose and Nicolas Balli Survey, Abstract – 10, Kenedy County, Texas). Well No. 1-1008S is located approximately fifty feet south of Well No. 1-1000S at 150,372 feet from the north line and 1094.7 feet from the east line of the referenced survey. This drill site is approximately 12.5 miles south along the Gulf Beach, from the end of Park Road 22 (Figure 1). The well site would be located approximately 900 feet west of the Gulf beach (Figure 2).

Operator's mineral tract and the area of operations include proposed new surface disturbance associated with the operations, such as a well pad, access road, production facility, pipeline, and any other planned surface use. Proposed is a 136,603 square-foot well pad that will be utilized by both wells. Well No. 1-1000S is a directional well with a proposed true vertical depth (tvd) of 15,000 feet and a measured depth (md) of approximately 19,000 feet. Well No. 1-1008S is a directional well with a proposed true vertical depth (tvd) of 9,200 feet and a measured depth (md) of approximately 10,500 feet.

The proposed roadway will result in the filling and leveling of 790 linear feet (21,800 square feet). Of the 790 linear feet, approximately 640 linear feet (12,800 square feet) are hummocky uplands and approximately 150 linear feet (9,000 square feet) are barrier dunes. Conventional road and foundation construction techniques, described in EA, would be used to construct the access road. The dune pass will be oriented south-east to north-west and built at an elevation high enough to prevent "water funneling" through the dunes during extremely high tides, but low enough to allow for long industrial type vehicles to travel without complications. The side slopes of the road through the dunes will be shaped to a 3:1 ratio (horizontal: vertical), and the slopes mulched with native hay acquired at Padre Island N S. Vegetation, taken from the impact area prior to start of construction, will be potted and saved for replanting on the slopes on approximately 3-foot centers. Plants will be watered daily as needed by Belaire Environmental (BEI). Immediately after construction, BEI will initiate the stabilization and revegetation of the dune pass.

All equipment, machinery, and living quarters would be placed on the 136,603 square foot pad area. This pad will be utilized for both wells, and may also be used for additional drilling in the future. Should the well be productive, all production equipment would be placed within the pad area. If a production

facility were constructed, the pad area would be reduced to a rectangle approximately 340 feet x 210 feet x 320 feet x 210 feet (69,300 square feet) and 67,303 square feet of the original 136,603 square feet would be reclaimed to original condition.

Figure 1: Vicinity Map

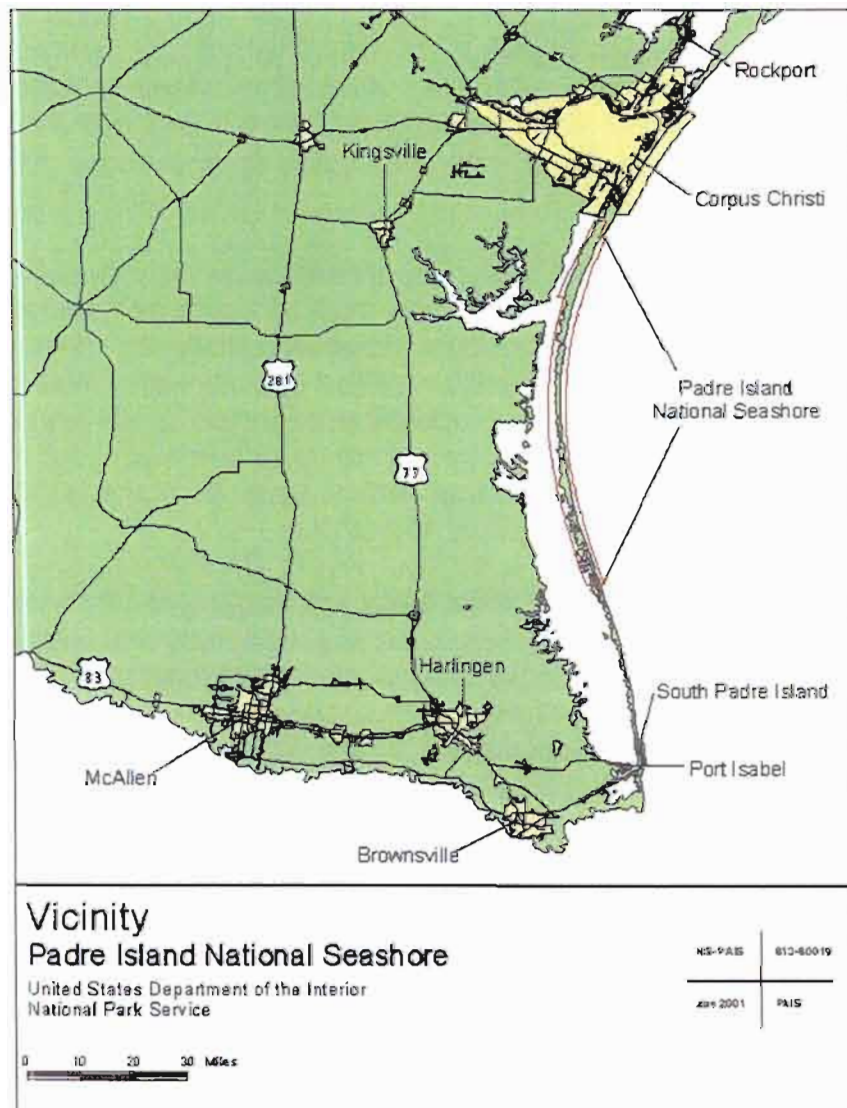
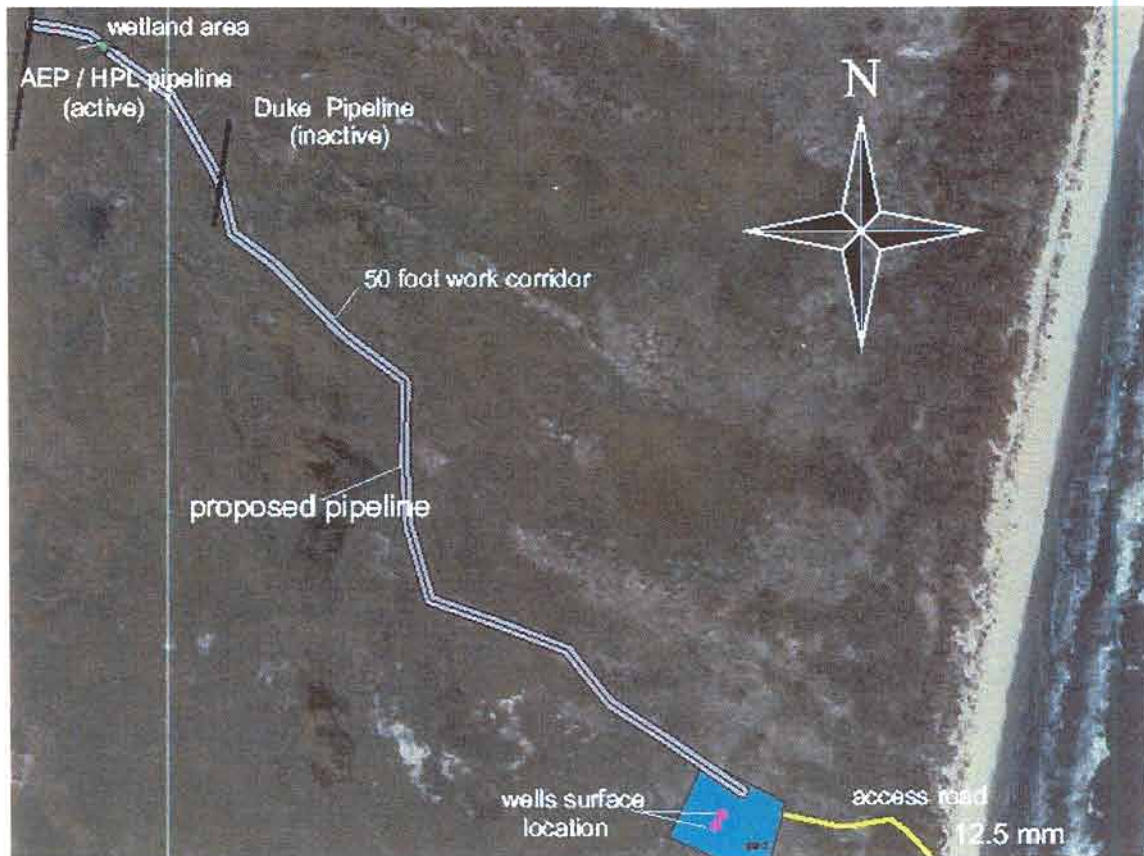


Figure 2: Location and Layout of the Lemon/Lemon Seed units



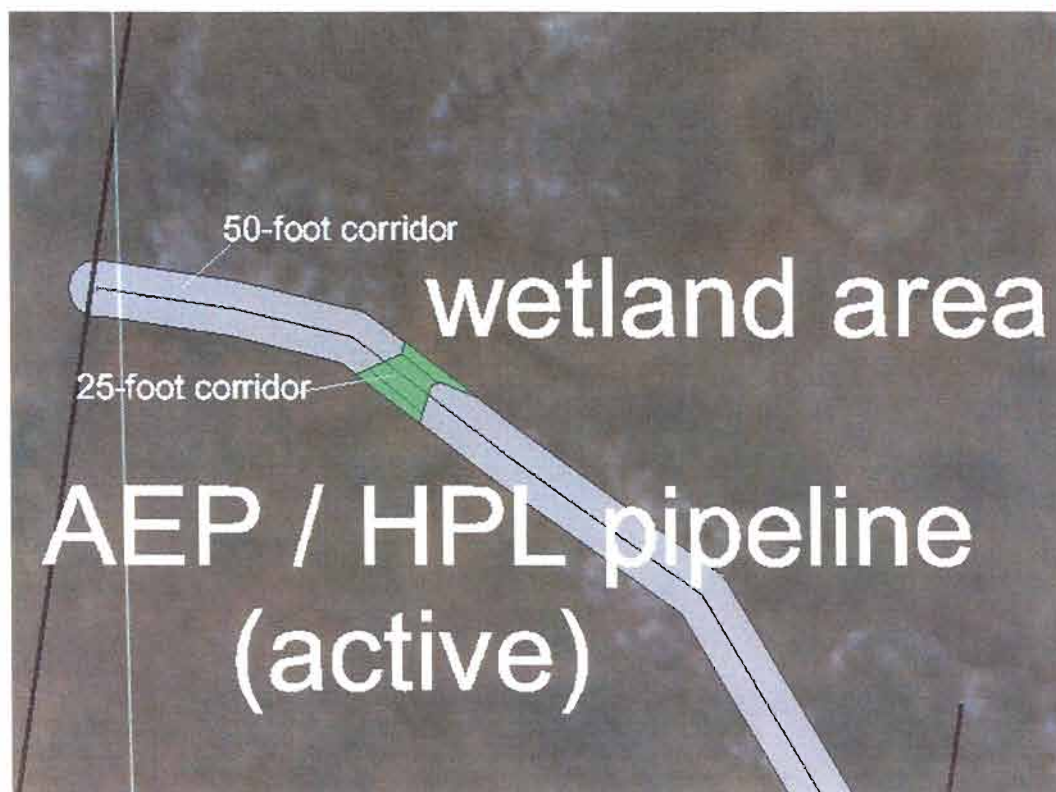
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Pipeline:

Should the well(s) be productive, construction of a pipeline from the well(s) to an existing pipeline for delivery of product would be necessary. The new line, ranging from a minimum of three (3) to a maximum of the (10) inches, is contingent upon the production rates obtained during the testing phase of the well. A ditch of approximately 24 inches wide and 42 inches deep would be dug from the well pad to the tie-in point. The construction of BNP's proposed tie in pipeline route will briefly impact approximately 3,280 linear feet, for the Duke pipeline (inactive), or 4300 feet, for the AEP pipeline (active and maintained) of hummocky uplands. Prior to the tie-in point for the AEP pipeline, the route

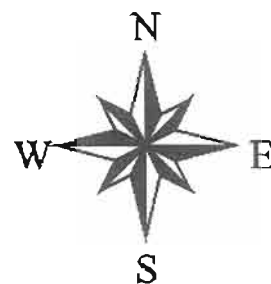
crosses an emergent wetland. The stipulation of a 25-foot wide construction corridor in wetlands instead of the 50-foot corridor used in uplands (Figure 3), reduces the impacts to 1,382.5 square feet (0.032 acres). The accompanying Statement of Findings for Wetlands will address this issue in detail.

Figure 3: Close-up of wetland area



0.04 0 0.04 0.08 Miles

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The procedure that will be used to tie-in the pipeline is a "hot tap". This method allows pipelines that are in service to be connected without the contents being released. A 15-foot by 15-foot (225 square foot) excavation will be required to make the tie-in. Any ground water that seeps into the excavation will be pumped out using PVC well points and diaphragm pumps. The liquids would be diverted and filtered through a silt screen and hay bales before being released on to the surrounding area. Any contaminated liquids or soils will be removed and hauled to an approved disposal site.

Site Description:

Padre Island National Seashore (NS) is located on a largely undeveloped barrier island in southern Texas, on the Gulf of Mexico. The barrier island is a dynamic system subject to many geologic forces and climatic events. The barrier island was formed, and is continually being reshaped, by the actions of wind, gulf currents, and waves. The seashore's landscape changes from broad, white, fine-sand beaches on the Gulf side, to ridges of fore-island sand dunes, to grassy interior upland flats dotted with smaller dunes, ephemeral ponds, and freshwater wetlands. The Laguna Madre and the back-island dunes and wind tidal flats that merge with the waters of the Laguna Madre define the western portion of the Seashore. Two natural and 20 man-made spoil islands in the Laguna also lie within the National Seashore.

Nature of Flooding in the Area:

Hurricanes, tropical storms, or other storm events that bring high winds or substantial rainfall may result in periodic flooding, due to the low elevations.

Justification for Use of the Floodplain:

At the time the park was established by Congress on September 28, 1962, private owners retained all mineral interests underlying the park. Two sections of the park's enabling legislation provide guidance regarding the management of nonfederal oil and gas. Under Section 4(a) of the park's enabling legislation and the NPS Organic Act (16U.S.C. §3), Congress authorized the Secretary of the Interior to promulgate the NPS Nonfederal Oil and Gas Rights Regulations, 36 CFR 9B.

There is no practical alternative to locating the proposed access road, well/production pad, and pipeline within the 100-year floodplain because the entire park, with the exception of the fore dunes, is located within floodplains. The formal designation of the floodplain status of Padre Island National Seashore was initially conducted by the Federal Emergency Management Agency's National Flood Insurance Program on August 17, 1971, and revised on March 1, 1984.

Site-Specific Flood Risk:

The greatest percentage of hurricanes occurs in August, September, and October. The number of tropical storms occurring during a season may vary from 4 to 12. The average for the past 40 years has been 10 storms per year within the Gulf of Mexico. The Corpus Christi area has had significant effects from only a small percentage of hurricanes, averaging 1 storm event every 15 years.

Under normal weather patterns, any flooding of the back island area or the beach face is of short duration. Water is pushed up by the winds associated with the frontal passage and generally recedes during the subsequent tide cycles. Padre Island N. S. utilizes a three stage alert system when a tropical storm is in the Gulf of Mexico.

- GREEN ALERT will be set when a weather system is developing a circular pattern with winds above 39 miles per hour within 700 miles or 48 hours of PAIS and appears to be heading for the coastal bend area. Visitors are advised a storm is in the Gulf of Mexico.
- YELLOW ALERT will be set anytime a storm building up to hurricane force moves to within 500 miles or 36 hours of PAIS. Visitors are to evacuate the park.
- RED ALERT will be set anytime a storm is expected to reach hurricane force within 300 miles or 24 hours of PAIS. A Red Alert will be set when the National Weather Service establishes a Hurricane Warning. The park will be closed, gates locked, and employees and visitors evacuated out of the park.

Should a storm suddenly develop in the western Gulf area, or if an approaching storm suddenly increases its forward speed, any or all of the alerts may be bypassed and the park would immediately come under red alert. Time remaining before the tidal rise covers the John F. Kennedy Causeway will be the primary factor determining what preparations are completed before evacuation of Padre Island N. S.

The possibility of storm events has been taken into consideration during the planning of this project. Hurricane preparedness and evacuation plans are appendices to the BNP Plan of Operations.

Project Contingencies:

Project impacts would be reduced by locating the proposed operations on hummocky uplands and by applying mitigation and restoration measures, such as installing culverts along the access roads where needed, collecting sewage and hauling it offsite for disposal, and constructing a berm around the drilling equipment area and well/production pad. This berm would provide primary and

secondary spill containment to prevent the release of any leaked or spilled hydrocarbons and contaminating or hazardous substances off the operations pad into the environment. As a result of applying these and other mitigation and restoration measures, construction, drilling, and production operations would result in localized, short- to long-term, minor adverse impacts on water resources and floodplains.

BNP has developed a hurricane plan in conjunction with the PAIS hurricane plan. Their plan addresses: shutting in, securing the well and associated equipment, removing unnecessary, unattached items, and evacuating personnel.

Summary:

The National Park Service concludes that there is no practical alternative for the placement of BNP's proposed construction, maintenance, drilling, and production of the wells. The proposed action would result in localized, short to long-term, minor adverse impacts on water resources and floodplains. The National Park Service, therefore, finds that this project is in compliance with Executive Order 11988: "Floodplain Management."

Preparer: Arlene Wimer, Environmental Protection Specialist; National Park Service; Padre Island National Seashore; P. O. Box 181300, Corpus Christi, Texas 78480-1300. Telephone (361) 949-8173 x 224.

**STATEMENT OF FINDINGS FOR EXECUTIVE ORDER 11990
(PROTECTION OF WETLANDS)**

**BNP PETROLEUM CORPORATION
LEMON/LEMON SEED WELLS PIPELINE
PADRE ISLAND NATIONAL SEASHORE, TEXAS**

INTRODUCTION

Padre Island National Seashore (PAIS) was established by Congress on September 28, 1962 (16 U.S.C. §459d, *et seq.*), "In order to save and preserve, for purposes of public recreation, benefit, and inspiration, a portion of the diminishing seashore of the United States that remains undeveloped...". Padre Island National Seashore preserves the longest undeveloped barrier island in the United States (Figure 1). It encompasses 69 miles of the 113-mile-long barrier island. More than 60% of the park consists of wetlands comprising marshes, inland waters, wind-tidal flats, and seagrass beds.

At the time of the park's establishment, surface ownership was held by the State of Texas or by private landowners. In 1973, the surface estate owned by the State of Texas was conveyed to the U.S. Government, while those surface rights held by private landowners were acquired by the federal government through condemnation. All subsurface mineral interests underlying the park were retained by private owners. Those underlying the submerged lands under the Laguna Madre and Gulf of Mexico were retained by the State of Texas and are administered by the Texas General Land Office. Thus, the federal government does not own any of the subsurface oil and gas rights in the park. However, Congress directed in the park's enabling act that nonfederal oil and gas development be regulated.

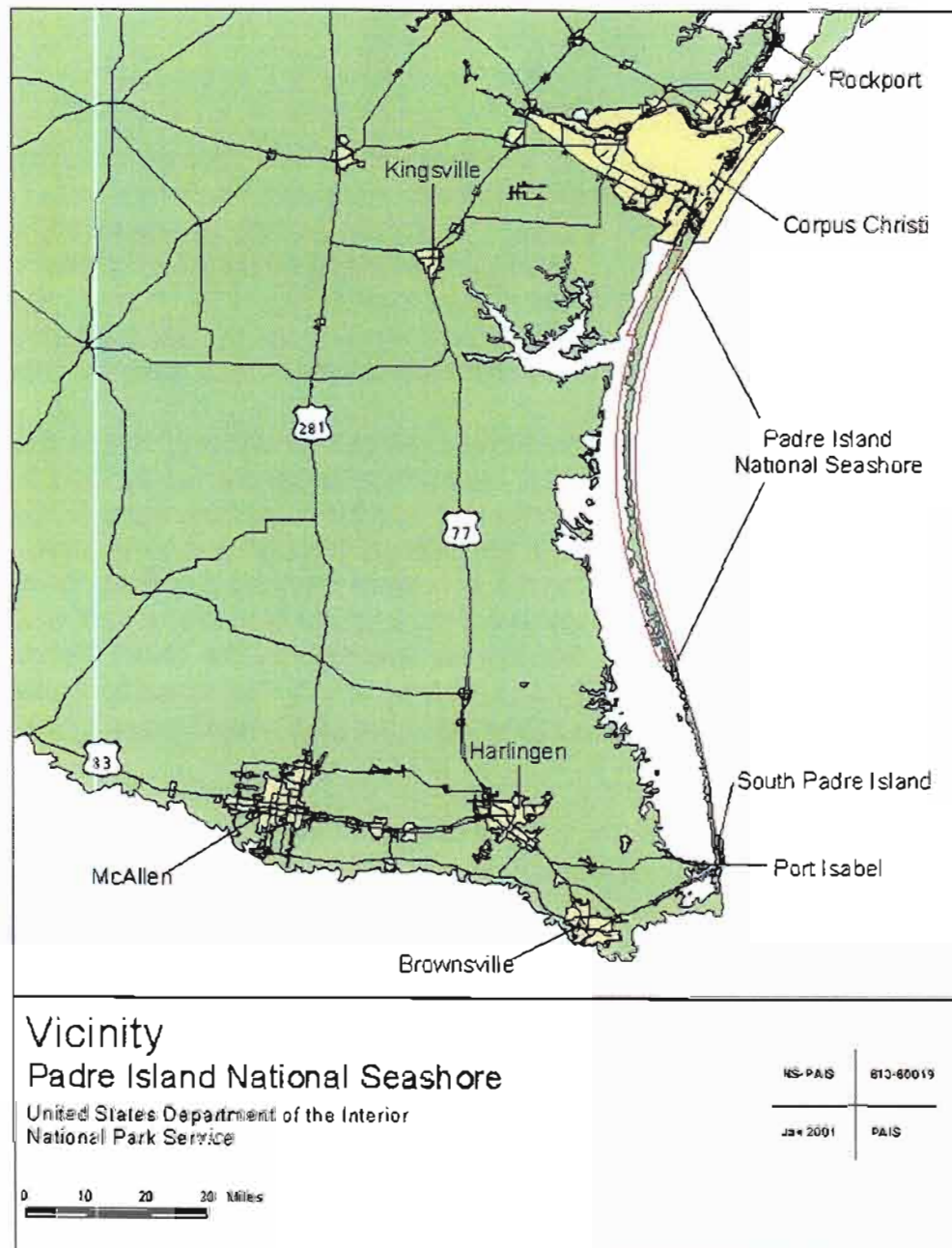
The drill pad and access road for the Lemon/Lemon Seed Unit Wells will not impact wetlands. The natural gas pipeline, however, will cross wetlands at one location, assuming the well is productive. This Statement of Findings will address this impact, alternatives considered, functions of the impacted wetland, and avoidance and minimization measures.

PURPOSE AND NEED FOR ACTION

According to the Environmental Assessment, there are 3 objectives for this project:

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

Figure 1: Region/Vicinity Map



The drill site is approximately 12.5 miles south along the Gulf beach, from the end of Park Road 22, and 900 feet west (Figures 2 and 3). The pipeline extends from the drill site to the west-northwest approximately 4300 feet to an existing pipeline. The location of the wetland impact is approximately 4000 feet west of the drill site (Figures 4 and 5).

ALTERNATIVES

One pipeline alternative was considered but dismissed from further analysis. This route would have been approximately 15,900 feet to the south of the preferred alignment and would have connected with an existing pig station (where pipes can be accessed and cleaned) at Yarborough Pass. This alternative would be more costly and would impact more than 18 acres of upland and almost 0.25 acres of wetlands. For these reasons, this alternative was dismissed.

Two alternatives were evaluated for this project. Under the first alternative, no action, the well would not be drilled and the pipeline would not be installed. There would be no adverse impacts to wetlands and this would be the environmentally preferred alternative. This alternative was not selected as the proposed action since the enabling legislation of PAIS honors existing nonfederal oil and gas rights.

The second alternative, the proposed action, is the BNP Petroleum Corporation proposal. Under this alternative, a pipeline would be laid within a trench (25' wide by 55.3' long) through a wetland (Figure 6), resulting in temporary wetland impacts of 1382.5 ft² (0.03 acres). The area would be excavated, with material temporarily sidecast. The pipeline would then be laid in the trench and the sidecast material redeposited. The disturbed area would be restored to pre-construction contours and revegetated. Top soil and vegetation would be reserved on-site and replaced after the pipe was laid.

WETLAND DESCRIPTION

The wetland was delineated and surveyed on January 17, 2002 by Belair Environmental, Inc. and verified by the Corps of Engineers during a site visit the same day. The Corps' verification letter noted that the wetland is considered adjacent to the Laguna Madre and is located approximately 15,000 feet north of Yarborough Pass and 4000 feet west of the primary beach dunes. The Corps has authorized the pipeline impacts to the wetland under Nationwide Permit 12.

The wetland is classified as palustrine emergent seasonally flooded (PEMC). The wetland is not identified on the US Fish and Wildlife Service's National Wetland Inventory map (NWI) (Figure 4). The wetland is located in a draw between 2 hummocks. The NWI map shows PEMC wetlands on either side of the proposed pipeline and in reality, the PEMC wetlands are joined.

Padre Island National Seashore Landcover Classes

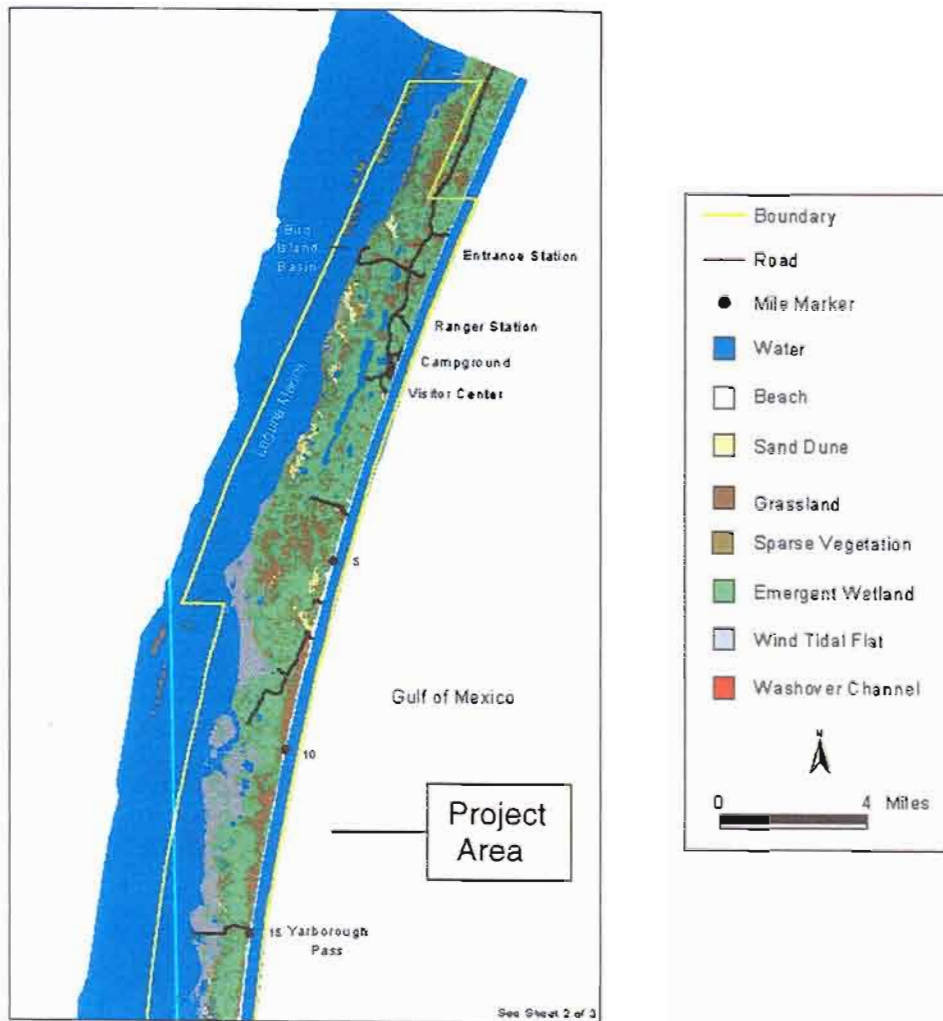
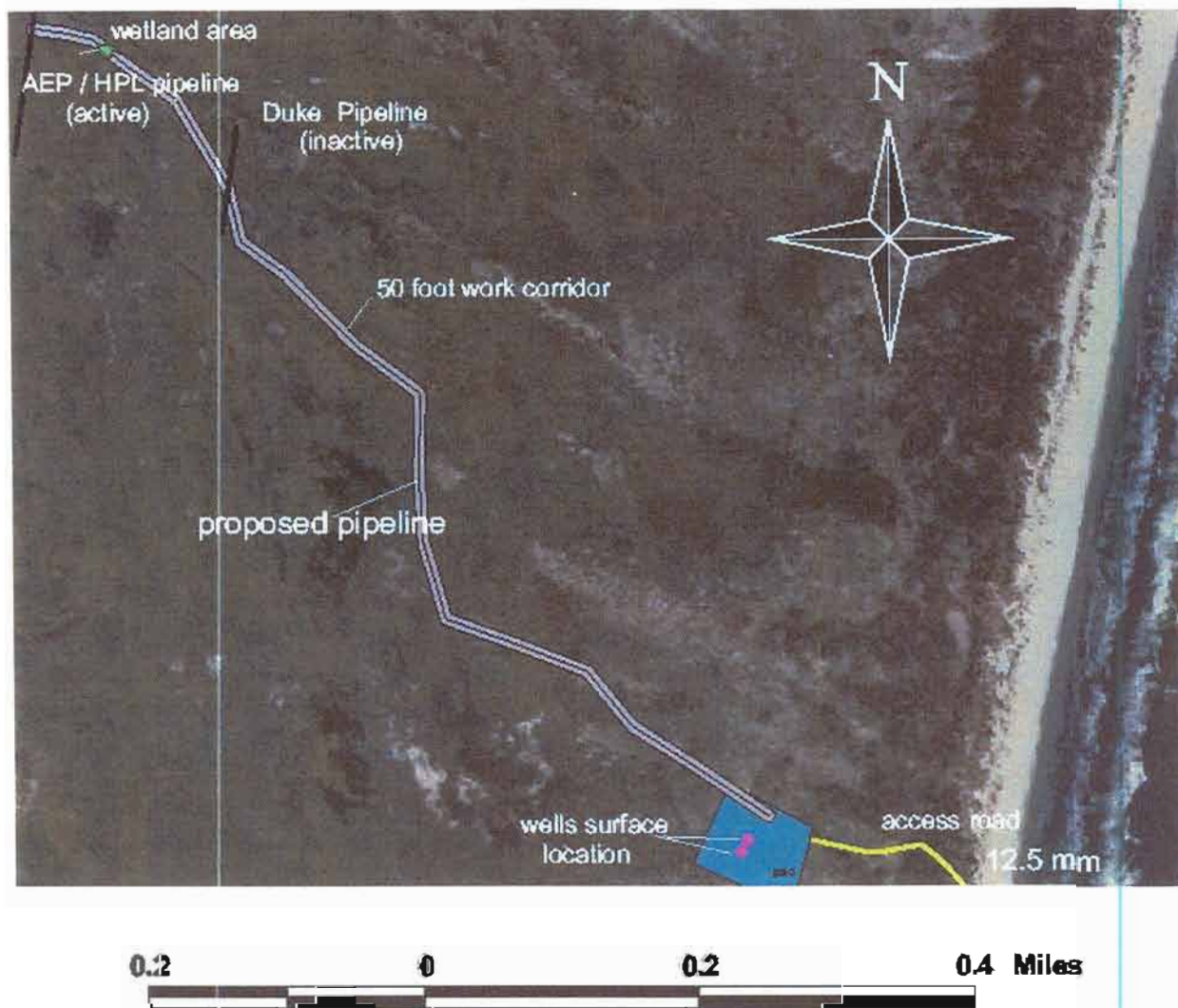


Figure 3.5
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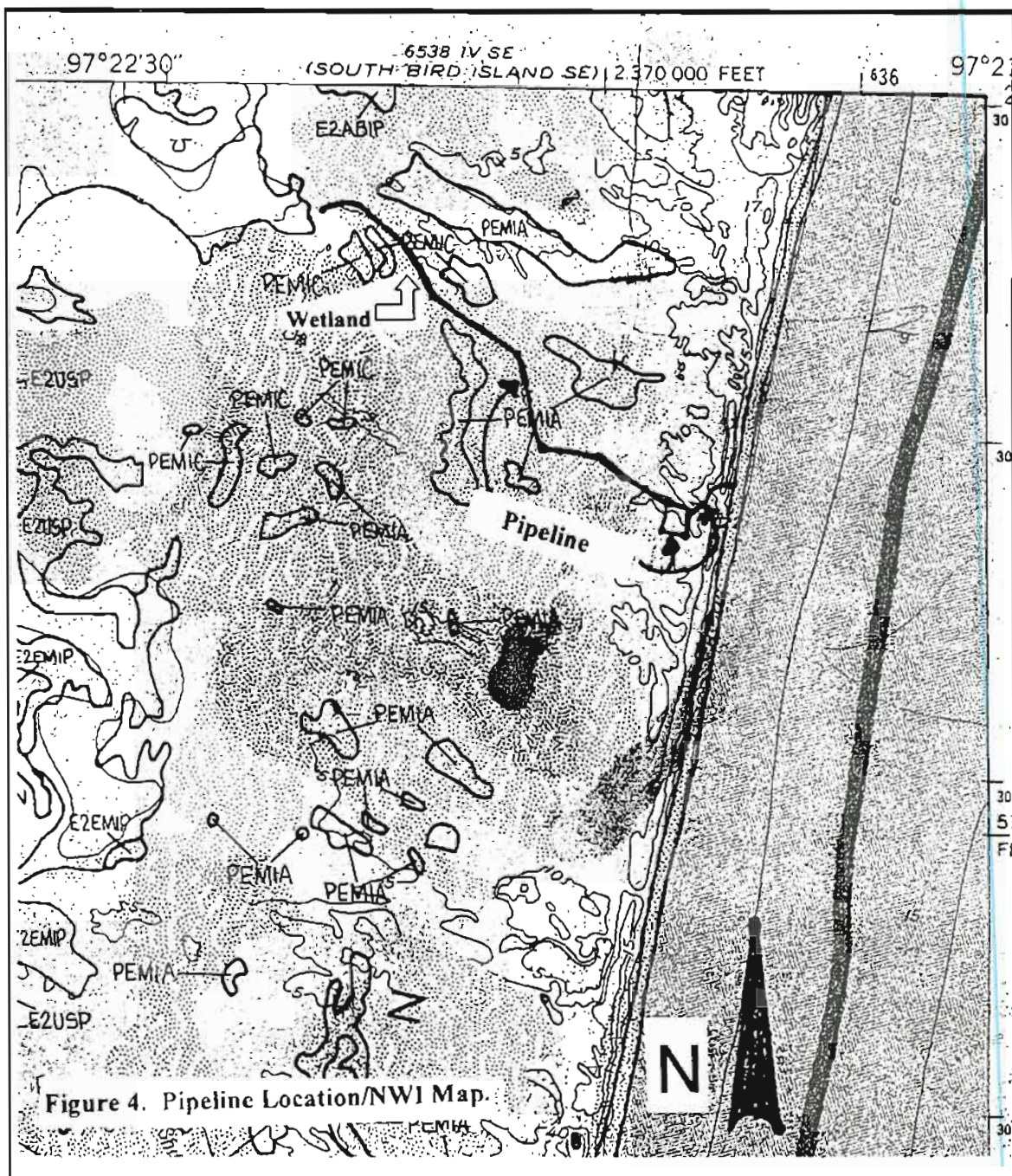
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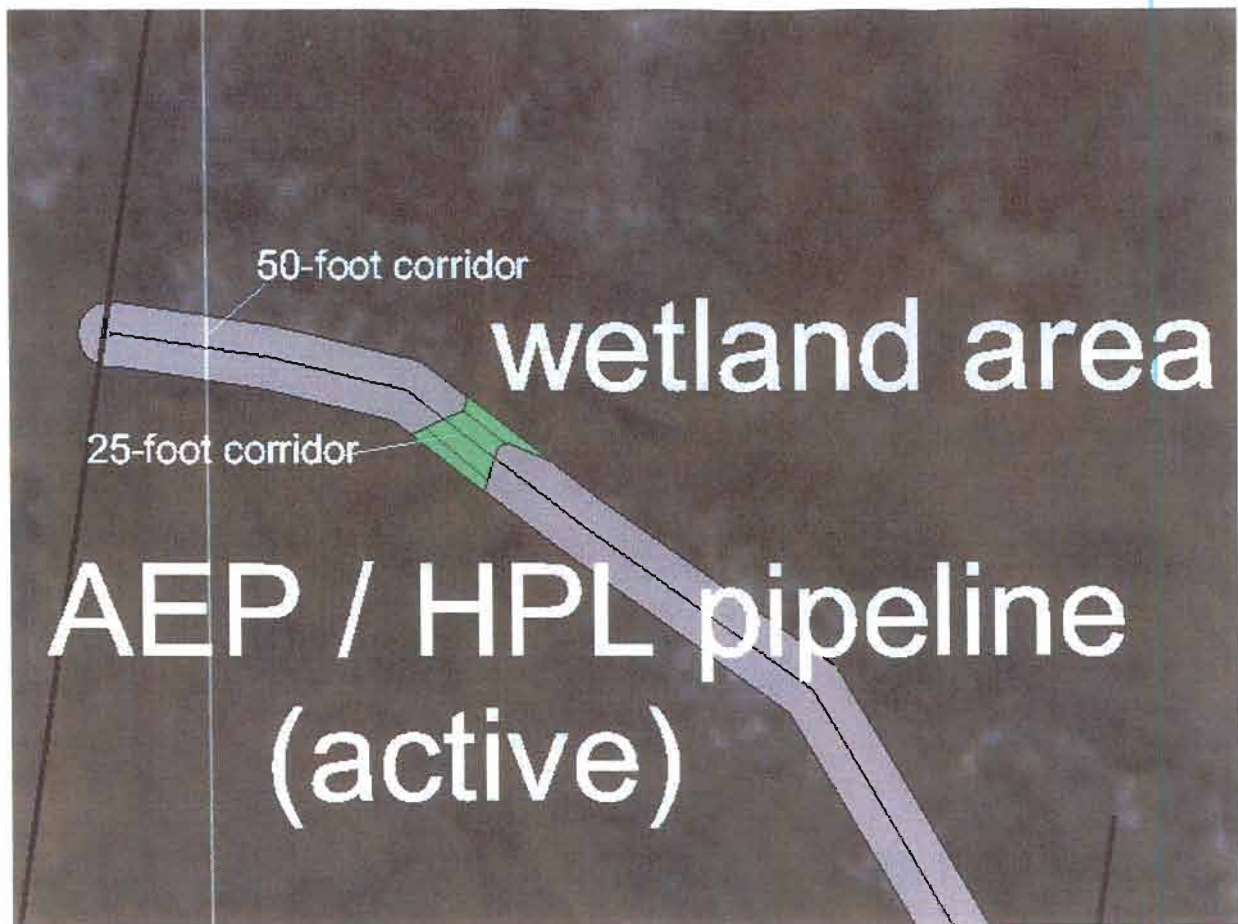
Figure 2: General location of the proposed Lemon/Lemon Seed Unit in relation to Padre Island National Seashore boundaries.



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Figure 3: Proposed location of the Lemon/Lemon Seed Units, 12.5 mile marker on Padre Island National Seashore. Depicts location of access road, pad/production site, proposed pipeline, and wetland area.





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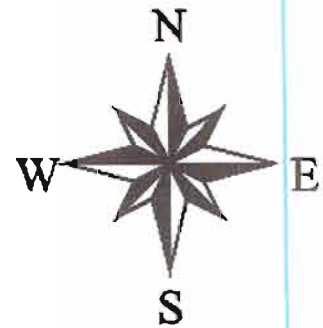
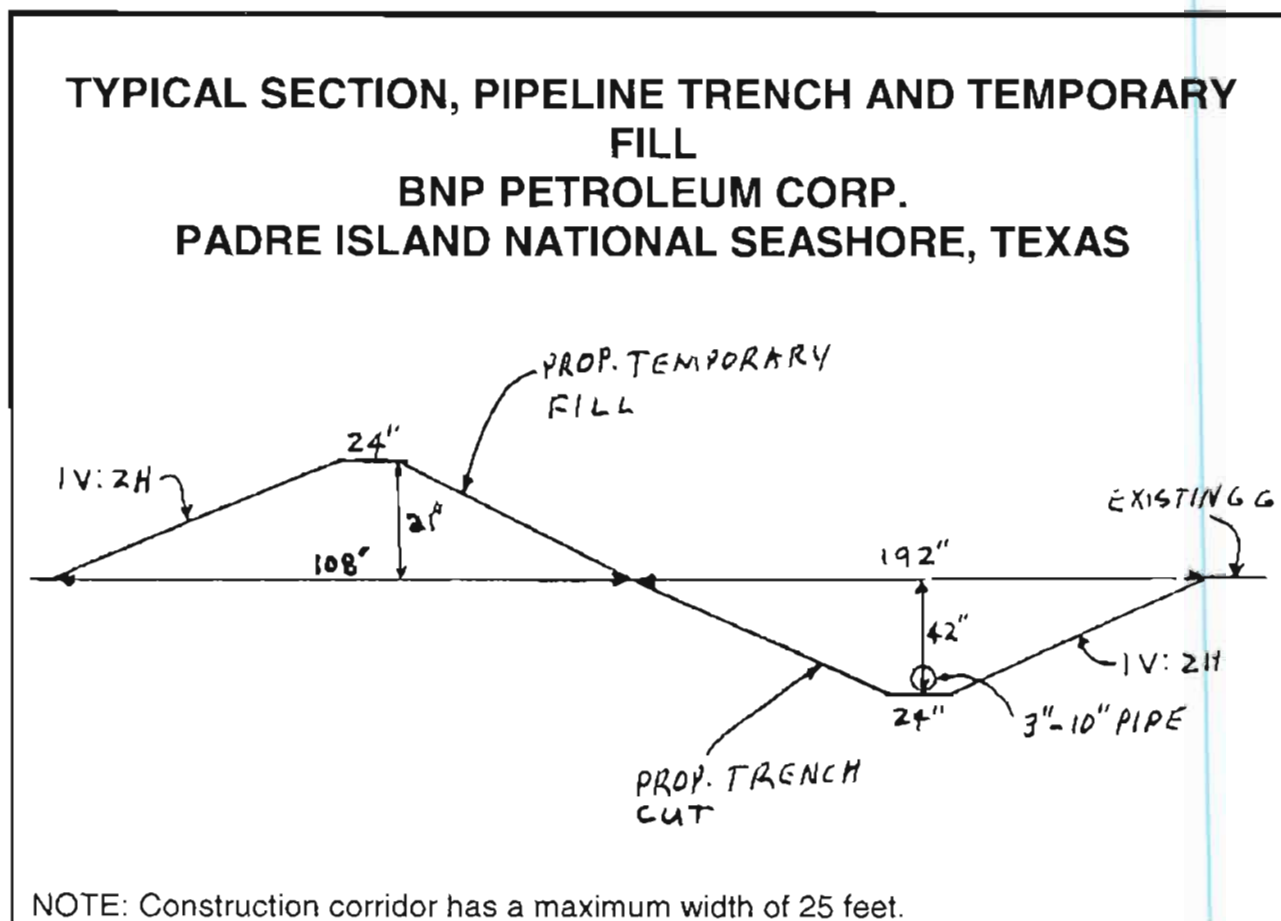


Figure 5: Close-up of wetland area with the 25-foot work corridor marked.

Figure 6. Pipeline Construction Detail



Plant species present in the wetland include *Spartina patens* (FACW), *Scirpus americanus* (OBL), *Paspalum monostachyum* (FACW+), and *Hydrocotyle bonariensis* (FACW).

According to the Kenedy County Soils Survey, soils at the impact site are Galveston-Mustang complex (Figure 7). The soil survey notes in its Selected Uses table that the soil has characteristics of wetness and that it floods. The Willacy County Soil Survey notes that Mustang soils are poorly drained and the water table is at the surface or at a depth of no more than 0.5 foot. Runoff is very slow or ponded. Mustang soils are mixed, hyperthermic typic psammaquents. Willacy is the county to the south of Kenedy and was used for background information since no Kenedy Soil Survey was available.

According to the park's Oil and Gas Management Plan, one of the reasons emergent wetlands are significant is that they provide important habitat for the varied wildlife resources of the park. Wildlife that could use the wetland include white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*), bobcat (*Felis rufus*), skunk (*Mephitis*

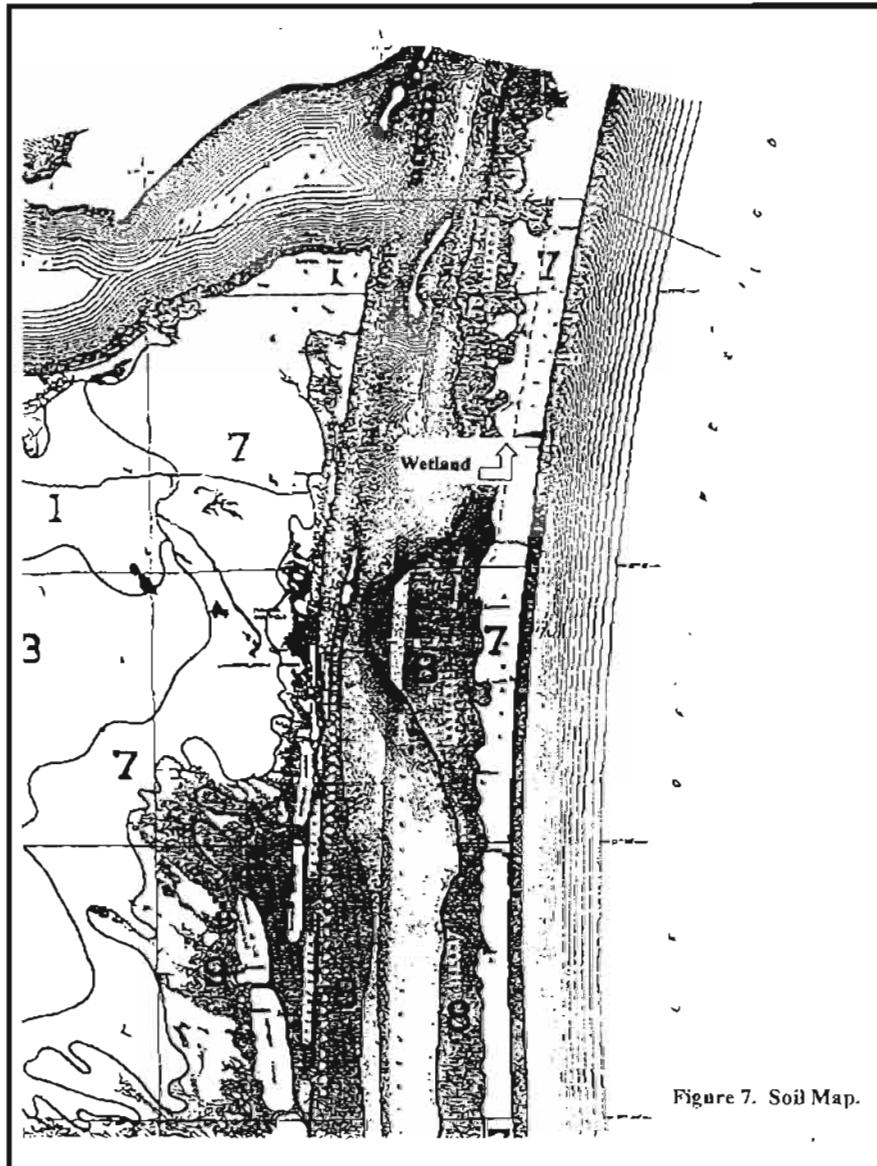


Figure 7. Soil Map.

mephitis), badger (*Taxidea taxus beriandieri*), raccoon (*Procyon lotor*), jackrabbit (*Lepus californicus merriami*), bobwhite quail (*Colinus virginianus*), dove (*Zenaida macroura*), meadowlark (*Sturnella magna*), northern harrier (*Circus cyaneus*), peregrine falcon (*Falco peregrinus*), American egret (*Casmerodius albus*), great blue heron (*Ardea herodias*), ducks, geese, and shorebirds. Reptiles and amphibians that could use the wetland include: northern leopard frog (*Rana pipiens*), Hunter's spadefoot toad (*Scaphiopus holbrookii*), diamondback water snake (*Nerodia rhombifer*), Texas coral snake (*Micrurus fulvis*), checkered garter snake (*Thamnophis marcianus*), red-eared turtle (*Trachemys scripta*), and yellow mud turtle (*Kinosternon flavescens*).

Federal and/or state listed species that could use the wetland include: reddish egret (*Egretta rufescens*), white-tailed hawk (*Buteo albicaudatus*), ferruginous hawk (*Glaucidium brasilianum*), and white-faced ibis (*Plegadis chichi*). The Fish and Wildlife Service determined during a site visit on December 10, 2001 that the proposed project

would have no effect on federally listed threatened and endangered species or their critical habitat because of the limited size and ephemeral nature of the wetland.

The wetland lies in a depression among hummocks. Hydrology is derived from runoff, precipitation, and a seasonally high water table. The wetland serves to collect runoff water and eroded sediment, recharge the water table, as a surface expression for a high water table (i.e., ground water), and to store flood waters.

It is doubtful that this small wetland is used by tourists/recreationists, although it could be used by bird watchers. A cultural resource survey was conducted and no archeological resources were found. The wetland is not currently being used for research purposes.

WETLAND AVOIDANCE, MINIMIZATION, MITIGATION

The project proposes to temporarily impact 0.03 acres of wetland. Measures have been taken to avoid wetlands to the maximum extent practicable and to minimize impacts to wetlands that could not be avoided.

One pipeline alternative was rejected in part due to wetland impacts of 0.25 acres.

The current configuration of the pipeline was routed around several wetlands along the 4300' length. The final route resulted in temporary impacts to one wetland that could not be avoided due to the fact that it is a continuous feature that runs perpendicular to the pipeline route. The current configuration of the trench has been reduced from a 50' width to the current 25'. This has reduced the wetland impacts from 0.06 acre to 0.03 acre.

Mitigation is not being proposed to offset impacts from the pipeline. NPS Procedural Manual #77-1 allows for compensation to be waived if adverse wetland impacts are less than 0.1 acre (Section 5.2.C.1.). No compensation is proposed since

- the impact is temporary and the area will be restored immediately upon completion of the pipeline segment using sidecast soil and reserved native vegetation
- the 25' by 55.3' trench (0.03 acre) is below the 0.1 acre threshold
- the loss of wetland functions is considered to be minimal (PEMC wetlands are common throughout the park)

CONCLUSION

The National Park Service finds that there are no practicable alternatives to temporarily disturbing 0.03 acres of wetlands within Padre Island National Seashore for the Lemon/Lemon Seed natural gas pipeline project. Wetlands have been avoided to the maximum practicable extent, and the wetland impacts that could not be avoided will be

minimized. This project is consistent with the NPS no-net-loss of wetlands policy in that the site will be restored to pre-disturbance contours and the native vegetation community restored when the trench is backfilled and revegetated. The site is expected to return to its full pre-disturbance wetland functions within one year. The National Park Service, therefore, finds that this project is in compliance with Executive Order 11990: "Protection of Wetlands."