

STATEMENT OF FINDINGS

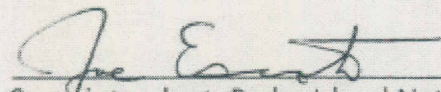
(PAGES 163-173 ST 991 #1, DUNN-MCCAMPBELL 12A, DUNN-MCCAMPBELL 11A
NATURAL GAS WELLS AND DUNN-MCCAMPBELL A8 WATER WELL EA)

FOR

EXECUTIVE ORDER 11990 'PROTECTION OF WETLANDS'

BNP PETROLEUM CORPORATION
ST 991 #1, DUNN-MCCAMPBELL 12A, DUNN-MCCAMPBELL 11A NATURAL GAS WELLS
AND DUNN-MCCAMPBELL A8 WATER WELL AT
PADRE ISLAND NATIONAL SEASHORE, TEXAS

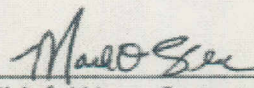
Recommended:



Superintendent, Padre Island National Seashore

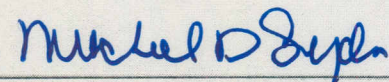
11/19/07
Date

Concurred:

 FOR WILLIAM L. JACKSON
(BY DIRECTION)
Chief, Water Resources Division

11/26/07
Date

Approved:


Director, Intermountain Region

11/29/07
Date

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

**BNP PETROLEUM CORPORATION
ST 991 #1, DUNN-MCCAMPBELL 12A, DUNN-MCCAMPBELL 11A NATURAL GAS
WELLS AND DUNN-MCCAMPBELL A8 WATER WELL AT
PADRE ISLAND NATIONAL SEASHORE, TEXAS**

INTRODUCTION

Congress established Padre Island National Seashore (the Park) on September 28, 1962 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" (16 U.S.C. §459d, et seq). The Park preserves the longest undeveloped barrier island in the United States. 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. However, Congress included provisions allowing the original owners of oil and gas rights to retain these rights within the Park. As a result, the mineral estate underlying the Park is either owned privately or by the State of Texas. The National Park Service (NPS) is legally required to allow access to the minerals while applying resource protection requirements and ensuring adherence to federal and state regulations, policies, and guidelines.

BNP Petroleum Corporation (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.

This Statement of Findings addresses potential impacts, alternatives considered, wetland functions, and avoidance, minimization, and park compensation measures associated with a 0.8312-acre expansion of the existing Dunn-McCampbell A8 wellpad. This statement does not address the additional components of the road, flowline, and wellpad. Those components currently exist and have already been addressed in a previous SOF.

PROJECT DESCRIPTION

BNP Petroleum Corporation (BNP) proposes to utilize the existing Dunn-McCampbell A8 wellpad, which is approximately seven miles south of the end of the pavement on South Beach (Figure 1) 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. Their use of the well pad will require an expansion of 0.8312-acre.

Surface Location and Wellpad

BNP's proposed drill site will be located on the existing Dunn-McCampbell "A" Lease wellpad (Figures 1 and 2) because the site will avoid or minimize adverse impacts on the Park's habitats because the site is a previously disturbed 1.7191-acre site. The

wellpad will be expanded by 0.8312-acre for a total wellpad acreage of 2.5503-acres, which is the acreage BNP has stated, is necessary for the proposed operation.

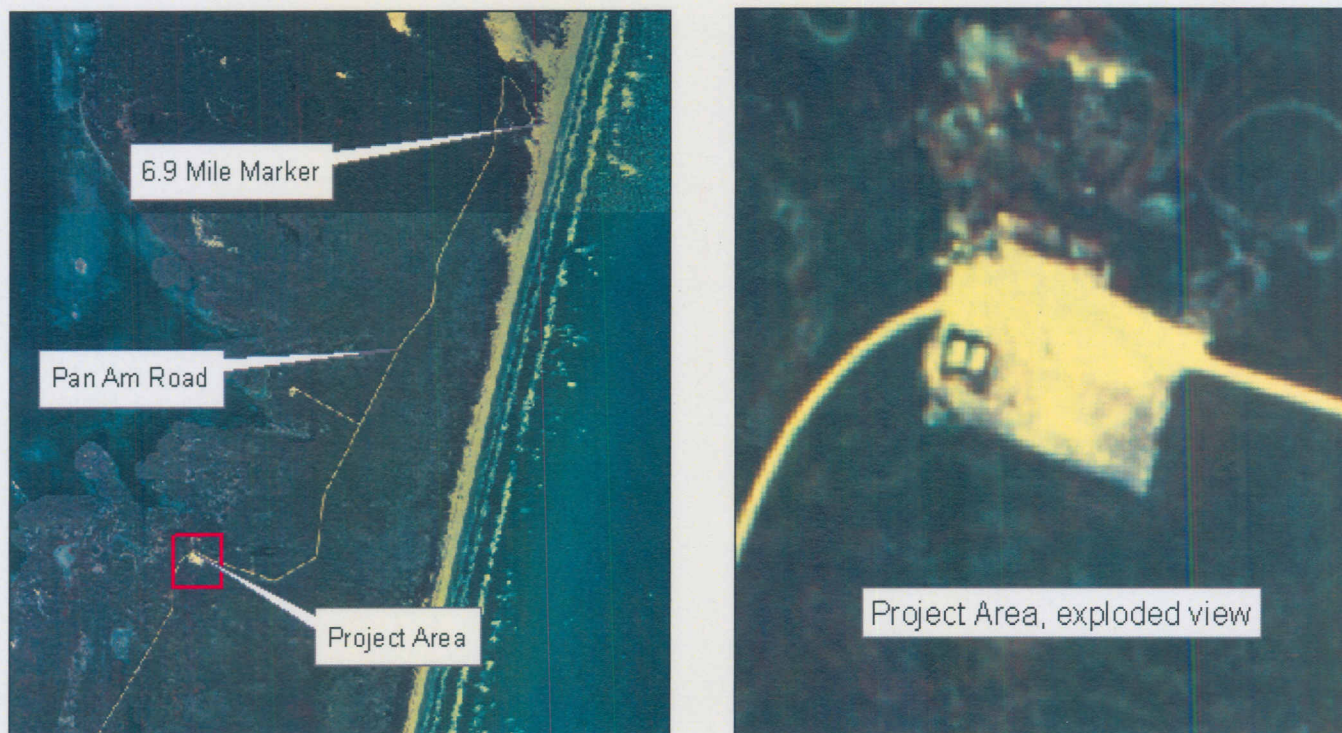


Figure 1-2. Proposed location of the ST 991 #1, Dunn-McCampbell 12A, and Dunn-McCampbell 11A natural gas wells, and Dunn-McCampbell A8 water well.

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. Prior to rigging up the drilling rig, a conductor will be driven to ± 120 feet (point of refusal) and the bottom of the cellar will be sealed with one foot of cement. Steel conduit will be cemented in place for the rathole and mousehole to prevent communication between groundwater sands and well fluids. The pad will be sloped and drainage ditches will be dug (12 inches wide and 8 inches deep) to route all runoff to the cellar. A portable sump pump will be used to pump the gathered liquids to steel tanks for re-use or disposal. 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-acres acre pad area. Approximately 1.0-acre of the wellpad will be reclaimed beginning 15 days after the drilling/completion rig is moved off of the last well location.

Use of Water for Drilling

Freshwater will be 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.

Alternatively, fresh water could be obtained from one of several fire hydrants located along Park Road 22 outside the Park. A check valve and water meter will be installed on the hydrant. Two 500-barrel fractionating tanks will be set near the hydrant to store water. Vacuum trucks will be used to haul water to the rig as needed. At 130 barrels per load, this will require approximately 173 loads to be delivered to the rig.

Production Facility

BNP will use existing tank batteries and production equipment that are present on the location for the production facility (Figure 3). Production for all operations could continue for up to 20 years.

WETLAND VALUES

Emergent wetlands are significant because they provide important habitat for various park wildlife resources. Wildlife that use wetlands include white-tailed deer (*Odocoileus virginianus*), coyote (*Canis latrans*), bobcat (*Felis rufus*), skunk (*Mephitis 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*), and various species of ducks, geese, and shorebirds. Reptiles and amphibians that use wetlands 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 slider turtle (*Trachemys scripta*), and yellow mud turtle (*Kinosternon flavescens*).

Federal and/or state listed species that can use park wetlands include: reddish egret (*Egretta rufescens*), peregrine falcon (*Falco peregrinus*), white-tailed hawk (*Buteo albicaudatus*), ferruginous hawk (*Glaucidium brasilianum*), and white-faced ibis (*Plegadis chichi*).

Park wetlands are adjacent to or lie within depressions that exist among sandy, low profile hummocks across the island. Wetland hydrology is derived from runoff, precipitation, and a seasonally high water table. Wetlands serve 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 floodwaters.

Restoration of the compensation site at Yarborough Pass will enhance the following wetland functions and values:

- Wildlife habitat: Tidal flow will be re-established to allow periodic saltwater inundation, which will promote the presence and growth of benthic invertebrates and blue green algae and therefore benefit terrestrial and aquatic wildlife. Benthic invertebrates such as polychaetes, amphipods, and insect larvae will provide a food source for many shorebird species including several federally and state protected species. Bluegreen algae provide the basis of the food web within the Laguna Madre by providing a food source for zooplankton and larval fish. Approximately 10 acres of tidal flat habitat will become productive through this wetland compensation project. Enhanced benefits will be realized for wildlife habitat by directly supporting several federal and state protected species, which do not utilize the wetlands impacted from the wellpad expansion.

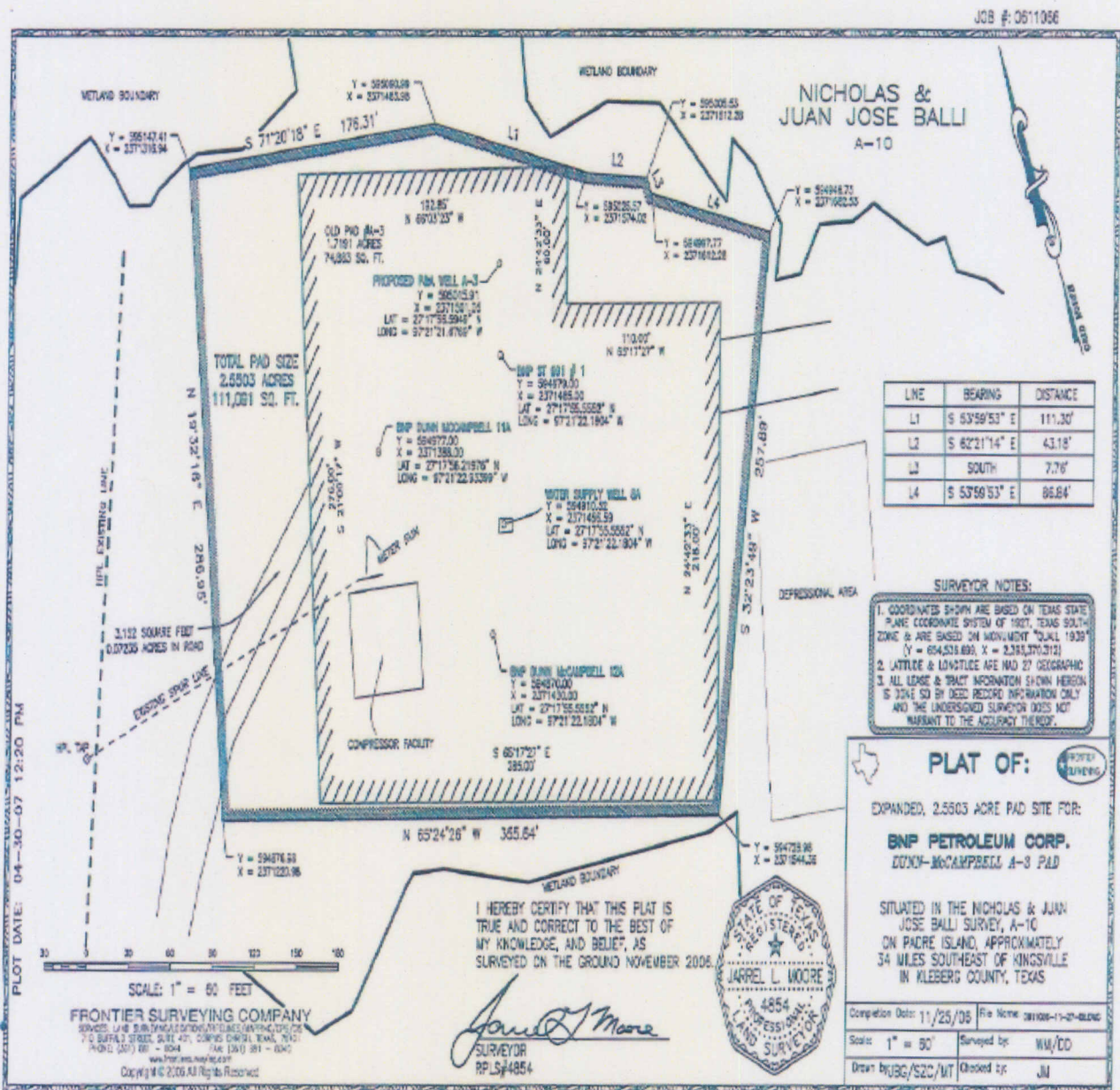


Figure 3. Proposed locations for wellpad and production facility.

- Nutrient source: The periodic inundation of saltwater will provide the necessary nutrients to promote the growth of benthic invertebrates and blue green algae, which will benefit wildlife associated with the tidal flats and Laguna Madre as mentioned above. The nutrient wetland function between the impacted and restored wetlands will be approximately the same, since both wetlands promote nutrient production.

- Recreational and commercial values: While tidal flats are not typically utilized for direct recreational activity, the removal of the abandoned road and its associated fill material will enhance the scenic beauty of the area associated with the wetland compensation project. Visitors frequenting Yarborough Pass will be able to see a larger expanse of tidal flat habitat without the detracting of an abandoned road. The restored wetland will function as a valuable component of the ecosystem and support birds and other fauna that visitors will utilize through recreational activities such as bird watching.

The promotion of blue green algae will enhance the Laguna Madre and its associated commercial and recreational finfish and shellfish species. Recreational and commercial values will be enhanced to a higher degree than the original wetlands. The impacted wetlands do not provide a food source utilized by the finfish and shellfish species within the Laguna Madre.

WETLAND DESCRIPTION

The NPS would normally conduct wetlands delineation of the proposed project location utilizing the wetland classification system described in *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et. al. 1979) and delineated by a qualified professional based on the methods described in the 1987 *Corps of Engineers Wetland Delineation Manual* and prior to construction. The delineation would focus on the analysis of soil properties, vegetation composition, and hydrologic properties. However, construction began prior to conducting the delineation; therefore, the NPS utilized the best available information to determine the extent of wetland impacts.

Soils

According to a recent NRCS soil survey, soil series 491 Mustang-Panam Complex were identified within the proposed project area (Figure 4).

The Mustang-Panam soils are gently sloping soils (0-2%) with elevations ranging from 0-10 feet. This series is comprised of very deep, poor draining, and very slow to rapidly permeable soils that formed in sandy eolian and storm washover sediments on barrier islands. They are classified as being 55% hydric.

Vegetation

The existing 1.7191-acres pad has already been expanded by 0.8312-acre due to miscommunication between the operator and the NPS to establish the proposed 2.5503-acres pad. The wellpad area was not surveyed for wetland habitats prior to the 0.8312-acre expansion. Therefore, wetland vegetation can only be determined by surrounding wetland plant communities. The predominant wetland emergent species included *Paspalum urvillei* at 30%, *Andropogon glomeratus* at 35%, and *Spartina patens* at 35%.

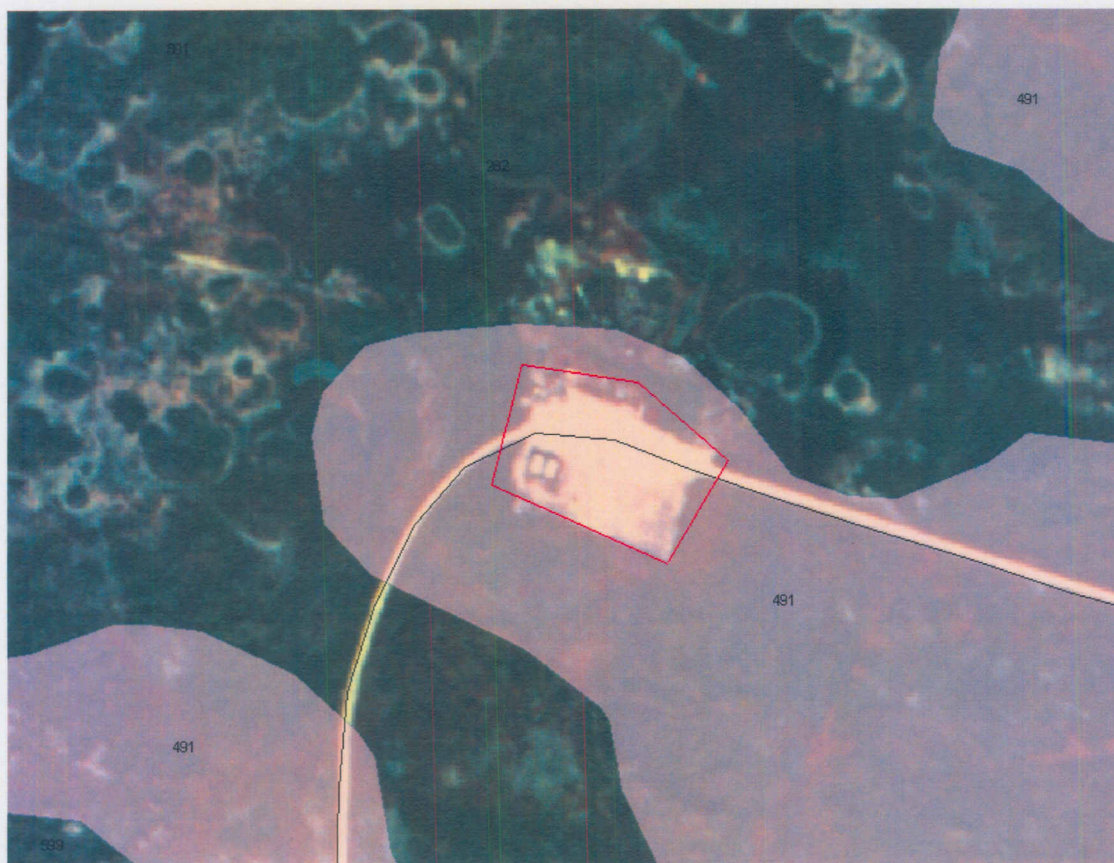


Figure 4. Soil Series Associated with the ST 991 #1, Dunn-McCampbell 11A, and Dunn-McCampbell 12A Natural Gas Wells, and Dunn-McCampbell A8 Water Well.

Hydrologic

The area is subject to occasional flooding by high storm surge from strong tropical storms, and is ponded after periods of heavy rainfall.

WETLAND IMPACTS

The proposed project has impacted 0.8312-acre of wetland habitat through the placement of fill material used during the unauthorized expansion of the wellpad. Due to park compliance not being completed prior to the pad expansion, the amount of emergent wetland vegetation was unable to be correctly calculated. Wetland impacts associated with construction of road, flowline, and authorized wellpad, which already exist, were addressed in previous compliance documents.

Wellpad: The unauthorized wellpad expansion impacted 0.8312-acre, which consisted of emergent, wetland vegetation. Hydric soils were not included as part of the wellpad determination since the wellpad constituted an atypical situation based on the presence of previous fill material. Therefore the wellpad expansion impacts 0.8312-acre of park wetland.

ALTERNATIVES CONSIDERED

Measures have been taken to avoid wetlands to the maximum extent practicable when locating the access road, wellpad site, and flowline and to minimize impacts on wetlands that could not be avoided.

Several wellpad and flowline alternatives were considered for this project to minimize impacts on park resources, but were dismissed. Using existing wellpad, flowline, and access routes, while minimizing impacts on park resources and values, were the NPS and BNP's principal criterion for selecting the proposed location.

Alternative Access, Interior Route

This alternative does not meet the project objectives of: allowing reasonable access for lessee, minimizing or mitigating impacts on resources and values, and preventing impairment to park resources, as well as the proposed action. If a new interior road were to be considered, it would likely originate from the end of Park Road 22 and extend southward to the proposed well location.

Accessing the ST 991 #1, Dunn-McCampbell 12A, and Dunn-McCampbell 11A wells would entail the development of approximately seven miles of new road. A road seven miles long and 20 feet wide with a 60-foot construction corridor would impact 50.91-acres (2,217,600 square feet). The impacted habitats would consist of approximately 10.20-acres (444,312 square feet) of upland/dunes and 40.70-acres (1,772,892 square feet) of wetlands.

The road would need to be an all weather road to provide access throughout the year. Rainfall events of recent years have demonstrated that this could not be accomplished without elevating the roadbed considerably higher than the surrounding area. Building a substantial road would alter the natural flow of ground water within the area, resulting in impacts on wetlands reaching far beyond the immediate area. Culverts would need to be installed, but would not guarantee that flow would continue at its natural rate. Run off from the road may create sedimentation and water quality issues within adjacent wetlands. Altering the productivity of these wetlands would compromise the food supply available for migratory and grassland birds, many of which are threatened or endangered species. The island's interior would also be more susceptible to invasive species introduction than the exposed Gulf beach as a result of plant fragments or seeds being carried into the park on oil and gas vehicles.

Finally, the Park's responsibility to protect resources and the visitor experience would be complicated by such a route. The view from atop a dune would not be the vast undisturbed back island with pockets of mitigated development, but instead the road would stand out as a long, barren strip. This road would be an enticement to some visitors who would try to find a way to drive down it, legal or not. Increased security would be a park responsibility and burden. Illegal activities would benefit from having another route on or off the island. These additional considerations make this alternative unattractive compared to the environmentally mitigable beach access alternative.

Alternative Surface Locations

BNP considered two different alternatives for the surface locations of the wells.

One alternative considered drilling the three wells as vertical holes from directly over the bottomhole targets. Vertically drilling the ST 991 #1 and Dunn-McCampbell 12A wells would have required drilling near the shoreline in the Gulf of Mexico. Vertically drilling the Dunn-McCampbell 11A well would have required construction of a new access road approximately 1,750 feet east of the existing wellpad and constructing a new well/production pad. Each well placed in production would have required the construction of flowlines to transport produced liquids. This alternative would have greater negative impacts on park resources, values, and visitor use and experience than the preferred alternative.

Another alternative location was considered east of the proposed location in an undisturbed area. This alternative would have required a new pad location of approximately 2.5503-acres to accommodate the three proposed wells and a new access road. This alternative would have greater effects on park resources, values, and visitor use and experience than the agency's preferred alternative stemming from the creation of nearly two additional acres of disturbance beyond the present 1.7191-acres of disturbed area associated with the Dunn-McCampbell A8 wellpad.

The proposed location was decided upon by park staff and BNP to be the most feasible alternative from both environmental and technological feasibility points of view.

Alternative Flowline Locations

An alternative to tie-in to the Duke Energy pipeline that underlies the proposed wellpad location was considered; however, the Duke Energy pipeline is currently not in compliance and cannot be utilized; therefore, this option was dismissed from further consideration.

MINIMIZATION

Mitigation is proposed to offset wetland impacts associated with the proposed project. Mitigation measures considered included locating the proposed operation in a manner that avoids wetlands to the greatest extent possible. Expansion of a previously developed wellpad and utilization of an existing access road and flowline corridor was selected for the proposed project because it would avoid adversely impacting wetlands, tidal flats, dunes, and other sensitive resource areas. Other mitigation measures to be employed include the use of cathodic protection and the use of rust inhibitors, which reduce impacts caused by repeated access to the flowline corridor.

Initially, BNP proposed expanding the wellpad to 3.5 acres, but it was determined that these wells could be produced from the existing wellpad size of 2.5 acres. Therefore, impacts on 1 acre of wetlands have already been prevented as a result of the accepted plan.

COMPENSATION

All wetland impacts could not be avoided or mitigated therefore wetland compensation is required. NPS Procedural Manual No. 77-1 allows compensation to be waived if adverse wetland impacts are less than 0.1-acre (Section 5.2.C.1.); however, the proposed project will impact 0.8312-acre of wetlands. A 2:1 compensation ratio was selected to compensate for wetland impacts that could not be avoided or mitigated, which provides for 1.6624-acres of total compensation.

A suitable compensation project was identified at Yarborough Pass involving the restoration of an abandoned oilfield access road, which is located approximately 1,000 feet east of the boat ramp along the south side of Yarborough Pass Road. This road was constructed through the placement of fill material onto tidal flats, which now impedes water flow to the eastern edge of the tidal flat (Figure 5) and has made this portion of tidal flat habitat less productive.

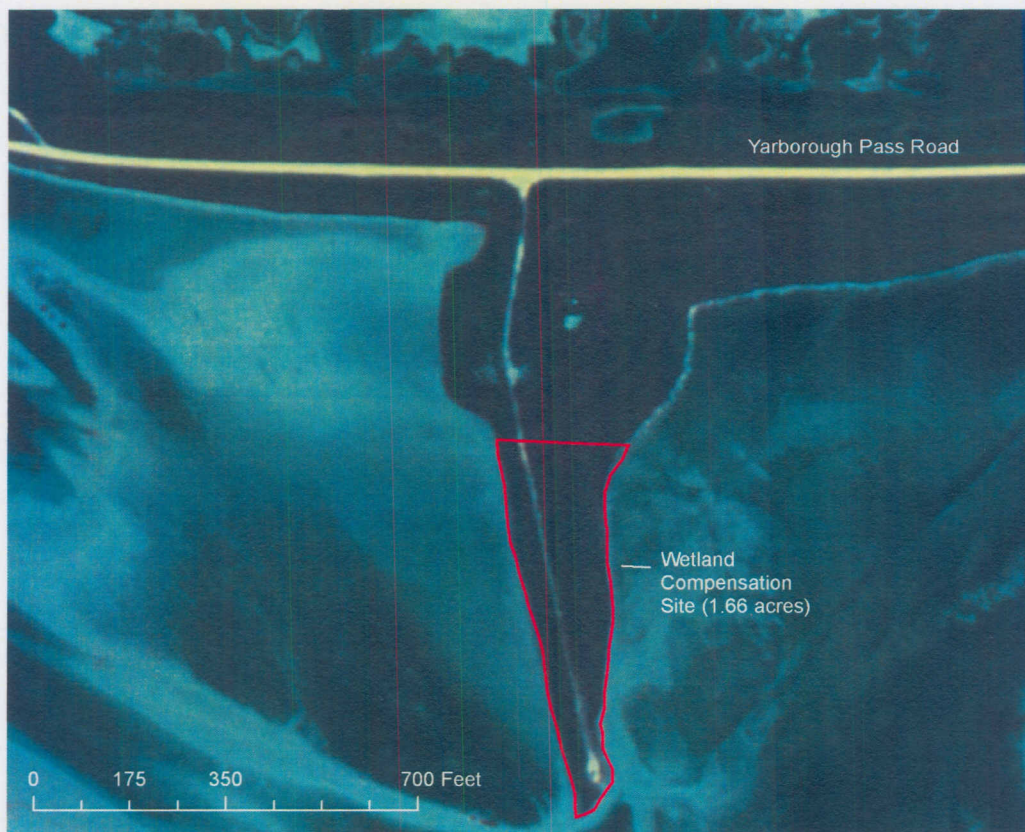


Figure 5. Wetland compensation area.

This compensation project will require removal of the existing road and base to an elevation that is equal to the tidal flat, thus restoring hydrology to approximately 10 acres of wind tidal flats. Large equipment such as a trackhoe or backhoe will be used to remove the fill material and transport to dump trucks that will remove the fill from the park. Equipment will utilize the existing road and begin restoration from the furthest end of the road and work backwards to the Yarborough Pass Access Road. Once the fill

material is removed, personnel will utilize hand tools to conduct the final grading and sediment removal to ensure that the elevation is equal to the surrounding tidal flat. Compensation activities are expected to begin on or about February 1, 2008 and take two weeks to accomplish depending on equipment availability and weather. Park personnel will monitor restoration activities daily to ensure that the project objectives are reached and additional impact to park resources does not occur.

Depending on weather conditions, storm events, and tidal fluctuations, full wetland restoration may require 2-3 years to accomplish during which time park personnel will monitor the restoration area quarterly. If personnel observe during this time that restoration activities did not reach the project objective, BNP will be required to address NPS concerns and conduct any necessary activities to restore wetland functions.

BNP will be solely responsible for funding activities associated with this wetland compensation project. The NPS will fund the necessary monitoring activities.

CONCLUSION

The proposed project location was decided upon by the NPS and BNP to be the most desirable alternative that will provide BNP sufficient space for current and future drilling operations while avoiding, minimizing, and mitigating direct impacts on wetlands, cultural resources, threatened and endangered species, and visitor experience. Total acreage of park resources impacted during expansion of the existing wellpad, and continued use of the existing flowline will be 0.8312-acre. Due to the previous unauthorized expansion activities precluding an accurate assessment of impacted resources, the park has determined that the whole 0.8312-acre expansion will be classified as wetlands and the compensation will be calculated from this value for a total acreage of compensation of 1.6624-acres.

The NPS finds that there are no practicable alternatives to disturbing 0.8312-acre of wetlands within the Park for the BNP ST 991 #1, Dunn-McCampbell 12A, and Dunn-McCampbell 11A wells, and Dunn-McCampbell A8 water well. Steps were undertaken to avoid impacts on wetland habitats to the maximum extent practicable; however, wetland impacts could not be entirely avoided. For the impacted wetlands, compensation will be required consisting of the of 1.6624-acres of existing, abandoned access road that will ultimately restore hydrology to 10 acres of wind tidal flats along the south side of Yarborough Pass Road. This project is consistent with the NPS policy of "no-net-loss" of wetland habitats.