

**PART II**  
**CURRENT LEGAL AND**  
**POLICY REQUIREMENTS**

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## **PART II - CURRENT LEGAL AND POLICY REQUIREMENTS**

The information in this section focuses on Current Legal and Policy Requirements (CLPR) pertaining to 36 CFR 9B operations. All nonfederal oil and gas operations in National Park Service units are subject to CLPR that are based on federal and state laws, regulations, federal executive orders, NPS policies, and applicable direction provided in NPS planning documents. The following section provides an overview of the NPS 36 CFR 9B regulatory process for plans of operations and § 9.32(e) applications, and lists the applicable NPS management policies, legal requirements, and performance standards (resource protection goals) for each resource topic described in this Plan/EIS. The topics in this section are presented in the same order as in Chapter 3 – Affected Environment and Chapter 4 – Environmental Consequences.

Part III of Chapter 2 describes specific legal and policy requirements (called operating stipulations in this Plan/EIS), and recommended mitigation measures for each phase of nonfederal oil and gas development. Descriptions of the legal and policy requirements applicable to nonfederal oil and gas activities on NPS lands are included in Appendix C – Federal Laws, Regulations, Executive Orders, Policies, and Guidelines that Apply to Nonfederal Oil and Gas Operations.

The performance standards described in this section apply to all current and future nonfederal oil and gas operations in the parks. Where a current operation does not comply with these standards, the operation would be modified or mitigation measures implemented to comply with these standards and all applicable legal and policy requirements.

The laws, regulations, executive orders, NPS policies, and applicable planning direction listed in the following section are intended to provide the reader with an inventory of the most relevant legal and policy requirements for conducting nonfederal oil and gas operations in NPS units, including Big Thicket National Preserve. Congress may change or enact new statutes and agencies may change their regulations and policies. During project planning, operators are responsible for ensuring they have up-to-date and complete information on legal and policy requirements for nonfederal oil and gas operations on NPS lands.

Additional information on NPS requirements for nonfederal oil and gas operations on NPS lands can be found in the “Operator’s Handbook for Nonfederal Oil and Gas Development in Units of the National Park System” at: [http://www2.nature.nps.gov/geology/oil\\_and\\_gas/op\\_handbook.htm](http://www2.nature.nps.gov/geology/oil_and_gas/op_handbook.htm).

### **NPS NONFEDERAL OIL AND GAS RIGHTS REGULATIONS**

The NPS has the primary responsibility for managing mineral activity in National Park System units in conjunction with nonfederally owned oil and gas to ensure that these oil and gas activities do not damage the environment and other resource values or impair unit resources or values. NPS regulations governing nonfederal oil and gas rights are published at Title 36 of the Code of Federal Regulations, Part 9, Subpart B (36 CFR Part 9B). The regulations have been promulgated under the authority of the NPS Organic Act of 1916, as amended (16 U.S.C. § 3) and several individual park enabling acts, including that of Big Thicket National Preserve. The final rulemaking on the regulations was published in the *Federal Register*, Volume 43, Number 237, page 57,822 (43 Fed. Reg. 57,822) on December 8, 1978, with an effective date of January 8, 1979. A reference copy of the 36 CFR Part 9B regulations is presented in Appendix B.

The NPS implements its protective responsibilities under its general authorities (e.g., National Park Service Organic Act, General Authorities Act of 1970, etc.) and the regulations at 36 CFR Part 9B, by:

- evaluating proposed Plans of Operations and § 9.32(e) Applications and approving such plans/applications if they meet standards that protect park resources and values,
- enforcing the regulations, and
- considering acquisition of the nonfederal oil and gas interest.

If the National Park Service determines that the proposed oil and gas operation within a park unit would conflict with preservation, management, or use of the parks, or would impair park resources or values, the 36 CFR 9B regulations and NEPA process would result in identifying measures to mitigate impacts. Mitigation measures may be applied to the Plan of Operations as conditions of approval, subject to the operator's acceptance of specific provisions and operating stipulations (36 CFR § 9.37(b)(2)). However, if the Service determines that the proposed mineral development would impair park resources, values, or purposes, or does not meet approval standards under applicable NPS regulations and cannot be sufficiently modified to meet those standards, the Service will seek to extinguish the associated mineral right through acquisition, unless otherwise directed by Congress.

In applying the NPS's Nonfederal Oil and Gas Rights Regulations, the NPS respects the constitutionally guaranteed property rights of mineral owners. As set forth in the Fifth Amendment to the Constitution, "...no person shall be deprived of property without due process of law; nor shall private property be taken for public use without just compensation." In two places, §§ 9.30(a) and 9.37(a)(3), the 9B regulations emphasize that they are not intended to result in the taking of a property interest, but rather are designed to impose reasonable regulations on activities that involve and affect federally-owned lands. Furthermore, the NPS has complied fully, and will continue to comply fully, with Exec. Order No. 12,630, 3 C.F.R. 554 (1989), "Governmental Actions and Interference with Constitutionally Protected Property Rights." Any alternative selected and applied to oil and gas activities in the park as a result of this planning process would be subject to the NPS's statutory mandates, regulatory provisions, policies, and Executive Orders, including the above described limitations regarding the taking of private property interests.

## **Overview of the 36 CFR 9B Plan of Operations Process**

Under the NPS's 36 CFR 9B regulations, each operator requiring access on, across, or through NPS lands or water 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. Through the plan, the operator must show that the "...operations will be conducted in a manner which utilizes technologically feasible methods least damaging to the federally owned or controlled lands, waters and resources of the unit while assuring the protection of public health and safety" (36 CFR § 9.37(a)(1)).

Some nonfederal oil and gas operations in NPS units may qualify for an exemption to the Plan of Operations requirement. The exemption applies if: (1) the operation was being conducted on or before January 8, 1979, or (2) the operation predates establishment of the area as a unit of the National Park System, or (3) the operation was incorporated into the unit as a result of a boundary expansion; and the operation is being conducted pursuant to a valid state or federal permit. A state or federal permit is considered valid if the permit was issued to the current operator on or before January 8, 1979, the term of the permit has not expired, and the operations have not undergone any change requiring a new permit since January 8, 1979. See 36 CFR § 9.33. Exempt operations are, however, subject to suspension if they pose an immediate threat of significant injury to federally owned or controlled lands or waters. (See 36 CFR § 9.33(c))

Another category of nonfederal oil and gas operations that may qualify for an exemption from the 36 CFR 9B Plan of Operations requirement are wells that are directionally drilled from a surface location outside park boundaries to a location under federally-owned or controlled lands or waters within park boundaries. These operations are regulated under 36 CFR § 9.32(e) and are described in the next section.

A key component of preparing the Plan of Operations is a detailed description of the environment that will be affected by the proposed activities. Operators first conduct plant, animal, cultural, hydrological, and topographic surveys as needed to adequately describe the resources in the areas in which they plan to work. Once the environmental conditions are known, operators must plan the use of methods and equipment that are least damaging to park resources. The surveys also provide a basis for designing reclamation activities.

Based on the scale of operations, the Plan of Operations preparation can be in the range of \$1,000 and up to and exceeding \$45,000. The wide range in costs to prepare a Plan of Operations demonstrates the differences in a plan's scope and content, variations in the number and types of environmental surveys needed, and the company's approach to planning (in-house or contracted).

Next, operators may need to modify operations from their standard methods to minimize environmental impacts. For example, to avoid harming certain resources, an operator may need to construct a longer access road or use directional drilling techniques. Sometimes avoidance of areas (i.e., wetlands or sensitive vegetation communities) is necessary to protect park resources. Disposing of wastes and contaminants at an approved disposal facility outside of the park is another method used to protect park resources. These and other modifications can add to the overall project cost.

Some upfront project costs may prevent the need for operators to do costly clean-up and remediation activities in future. For example, the NPS requires dikes or berms around drilling and production operations and impermeable barriers underneath these operations to provide secondary containment in the event of a spill. An uncontained spill or unnoticed leaks from a tank can contaminate large areas, flow into nearby surface waters, and seep into the groundwater. Clean-up and restoration of the damaged area to meet federal and State of Texas requirements could cost the operator hundreds of thousands of dollars.

Next, the NPS commonly requires operators to take a more active role in reclamation of the site compared with areas outside of the park. Following proper plugging of wells and removal of surface equipment, operators must clean up contaminated soil, remove debris and non-native materials used in operations, re-establish natural contours and vegetation, and monitor the results of the reclamation operations.

Maintaining a performance bond to guarantee compliance with the Plan of Operations is an annual cost to the operator. The 36 CFR 9B regulations limit the maximum bond amount to \$200,000 for a single operation or multiple operations by the same operator in a given park. Annual costs to maintain bonds through a surety company range from 1 to 3 percent of face value, or up to 70 percent, depending on the operator. Operators typically file a corporate surety bond but may elect to file other types of acceptable securities such as an irrevocable letter of credit, cash, certified check, certificates of deposit, or government bonds. The bond or security required by the NPS is in addition to and not in lieu of any bond or security deposit required by other regulatory authorities.

Another issue facing operators in NPS units is the length of time it takes to obtain a permit. Table 2.18 provides an explanation of the Plan of Operations permitting process and associated timeframes. Under current management practices, the NPS looks at each individual oil and gas

proposal under the 36 CFR 9B regulations. The NPS processing time is typically 3 to 4 months. Currently, there is no comprehensive oil and gas management plan to help operators interpret the

**Table 2.18. NPS Processing Time for a 36 CFR 9B Plan of Operations**

<b>Action</b>	<b>NPS Response Time</b>	<b>Limiting Factor</b>
Operator contacts park regarding interest in conducting oil and gas operations. Operator provides the NPS with written documentation demonstrating right to conduct operations.	Same day	Subject to park staff availability
Park provides operator copies of 36 CFR 9B regulations, performance standards, plan of operations requirements, and other information as necessary.	Same day	Subject to park staff availability
Operator meets with park staff to discuss proposed operation, scope resource issues relevant to the proposed operation, determine resources that could be affected by the operation; identify environmental planning and compliance requirements; and determine affected local, state and federal agencies.	Variable – NPS provides assistance as needed. Scoping meeting typically lasts one day.	Subject to park staff and operator availability
Operator meets with park staff and affected federal, state, and local agencies to identify resource issues, permitting requirements, and impact mitigation strategies.	Variable – NPS provides assistance as needed.	Subject to park staff, other agency staff, and operator availability
Operator submits written request for temporary access to gather basic information needed to complete the plan of operations.	Variable - NPS provides assistance as needed.	Subject to operator response
Park issues 60-day data collection permit with park resource/visitor protection requirements; and publishes a notice in the local newspaper pursuant to 36 CFR § 9.52(a).	1 - 2 days	Subject to park staff availability
Operator conducts necessary surveys, including natural and cultural surveys, as applicable and surveys/stakes the operations area.	Variable - NPS provides assistance as needed.	Subject to operator response or timing requirements
Operator submits draft plan of operations to park.	Variable - NPS provides assistance as needed.	Subject to operator response
NPS performs a completeness and technical review of the plan of operations. Park accepts plan of operations as complete or returns the plan to the operator with specific directions on how to revise the plan.	30 days	NPS policy from NPS procedures governing nonfederal oil and gas rights, 1992; and 36 CFR § 9.36(c)
Operator revises plan of operations, as necessary.	Variable - NPS provides assistance as needed.	Subject to operator response
Park staff prepares NEPA document (EA or EIS) or adopts operator's (or consultant-prepared) NEPA document, incorporates other environmental compliance (ESA, NHPA, wetlands, floodplains, CZM etc.), and initiates mandated consultations with other agencies. Park completes public review process, finalizes decision documents, and notifies the operator if the plan has been approved, conditionally approved, or rejected.	60 days (includes 30-day public review of EA)	36 CFR § 9.37, 36 CFR § 9.52(b), NPS DO-77.1 for wetlands compliance, NPS DO 77.2, and DO-12 for NEPA compliance. Operator notified if additional time is needed per 36 CFR § 9.37(b)(6)
Operator agrees to any conditions of approval (if any), submits applicable state and federal permits, and files suitable performance bond with the NPS.	Variable	Subject to operator response
<b>TOTAL NPS RESPONSE TIME</b>	Minimum of 3 to 4 months	Dependent on compliance requirements

regulations and apply them specifically to the parks in which they intend to operate. At times, this has caused confusion and added to permitting delays. When this oil and gas management plan is completed, operators will have more information on which to design and implement a proposed operation which should help to reduce the overall time of obtain a permit to conduct nonfederal oil and gas operations.

Taken altogether, the NPS permitting process, regulatory requirements, and the application of operating stipulations and mitigation measures generally increase the cost of operations, compared to conducting nonfederal oil and gas operations on non-NPS lands.

Under the NPS 36 CFR 9B regulations, the NPS has jurisdiction to regulate nonfederal oil and gas operations occurring within park boundaries. Activities located outside park boundaries but connected to operations occurring within a park are beyond the jurisdiction of the NPS. This means that the NPS cannot assert regulatory control over them. Nonetheless, the NPS can work cooperatively with the operator and permitting agencies with jurisdiction to get park protection concerns addressed. In the event that activities outside park boundaries damage or destroy park resources or values, Congress has given the NPS a means for recovering monetary damages under 16 USC § 19jj as discussed on page C-2.

## Overview of 36 CFR 9.32(e) Application Process

Section 9.32(e) of the 9B regulations governs operators that propose to develop their nonfederal oil and gas rights in a park by directionally drilling a well from a surface location outside unit boundaries to a location under federally-owned or controlled lands or waters within park boundaries. It is limited in scope to those aspects of the directional drilling operation occurring within park boundaries. Due to the linear configuration and resources contained in the corridor units of the Preserve, it is likely that directional drilling will be utilized more often than vertically drilling from surface locations within the park.

Per § 9.32(e), an operator may obtain an exemption from the 9B regulations if a Regional Director is able to determine from available data that a proposed drilling operation under the park poses “no significant threat of damage to park resources, both surface and subsurface, resulting from surface subsidence, fracture of geological formations with resultant fresh water aquifer [sic] contamination or natural gas escape or the like.” The regulations define operations as “all functions, work and activities within a unit in connection with exploration for and development of oil and gas resources, the right to which is not owned by the United States...” (36 CFR § 9.31(c), underlining added). The potential impacts considered in the § 9.32(e) exemption process relate only to effects on park resources from downhole activities occurring within the boundary of the park, not threats to park resources associated with the operation outside park boundaries.

Under the regulations, the NPS may determine that an operator: (1) qualifies for an exemption from the regulations with no needed mitigation to protect park resources from activities occurring within park boundaries, (2) qualifies for an exemption from the regulations with needed mitigation to protect subsurface park resources from activities occurring within park boundaries, or (3) must submit a proposed plan of operations and a bond to the NPS for approval. Each one of these legally permissible options is briefly described below:

- 1) **Exemption with No Mitigation:** *(no approval or permit issued)*: The NPS determines that the proposed operation inside the park qualifies for an exemption under § 9.32(e) without any mitigation or conditions required by the NPS on the downhole activities. This option will arise when there is no potential for surface or subsurface impacts in the park from the downhole

activities (e.g., the wellbore does not intercept an aquifer within the park). Under this option, the NPS is not granting an approval or issuing a permit.

- 2) **Exemption with Mitigation:** (*no approval or permit issued*): The NPS determines that the proposed operation inside the park qualifies for an exemption under § 9.32(e) if there is no potential for surface impacts to park resources from downhole operations in the park and the operator adopts mitigation measures or conditions that reduce potential impacts on subsurface resources (e.g., an aquifer) to "no measurable effect." As in option #1 above, the NPS is not granting an approval or issuing a permit.
- 3) **Plan of Operations:** (*approval and "permit" issued*): This regulatory option would apply if NPS determines that it cannot make the requisite finding for a § 9.32(e) exemption because (1) impacts to surface resources are involved, or (2) impacts to subsurface resources cannot be adequately mitigated to yield "no measurable effect." This option would also apply if an operator does not apply for an exemption and the NPS does not consider granting an exemption on its own initiative. In these cases a prospective operator must submit and obtain NPS approval of a proposed plan of operations and file a bond before commencing directional drilling activities inside a park. The required plan and bond will be limited in scope to those aspects of the directional drilling operation that occur within park boundaries. As a result, many of the general plan information requirements set forth under § 9.36 will not apply. Mitigation measures and/or conditions of approval would be integral to this option. Mitigation measures would protect cultural resources, cave/karst resources, aquifers, floodplains, wetlands and other surface resources from operations occurring inside the park. Under this option, an operator must have NPS approval of a proposed plan before commencing any activity in the boundaries of the park. The approved plan constitutes the operator's "permit".

**Applicability of NEPA.** For purposes of public disclosure and education, NPS prepares NEPA documents on all directional drilling proposals submitted to the NPS. Through its NEPA analysis, the NPS assesses impacts both in and outside of the park associated with the downhole operations in addition to the connected actions outside of the park. The downhole activities occurring in the park are analyzed to determine if there is a significant threat to park resources and if a § 9.32(e) exemption should be granted. As required by NEPA, the analysis of the impacts from the connected actions occurring outside of the park are presented in addition to the downhole operations both inside and outside of the park to disclose to the public all of the potential impacts on the human environment. Cumulative impacts are presented for the analysis area which includes areas inside and outside of the park.

**Collection of Resource Information by Prospective Operators.** The NPS may only require a prospective operator of a directional drilling operation to conduct resource surveys inside a park when there is a correlation between downhole operations within the park and potential impacts on park resources and values. In contrast, the NPS may request, but cannot require, operators to conduct resource surveys inside a park associated with operations outside the park but connected to the downhole activities in the park or to conduct resource surveys outside the park. Overall costs and timeframes for the operator to prepare a § 9.32(e) application and timeframes for NPS review and approval should be less than for a Plan of Operations, in part because less data will be collected and used in the NEPA analysis.

When the NPS is the "lead" federal agency responsible for Endangered Species Act (ESA) § 7 consultation, the NPS may require biological surveys both inside and outside the park if, during consultation, it is determined that these surveys are needed. The ability to require biological surveys stems from authority under the ESA, not the 9B regulations.

Table 2.19 summarizes the applicability of the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), National Historic Preservation Act (NHPA), Executive Order 11988 – Floodplain Management, Executive Order 11990 – Protection of Wetlands, and mitigation measures to directional drilling applications.

**Access to Surface Location Outside Park Boundaries.** If the United States does not own the surface estate where operations are located outside the park, NPS access to these operations must be coordinated with the operator, including obtaining the operator's permission to be on location. NPS access also must relate to obtaining information to complete the needed compliance work or to ensuring compliance with mitigation measures related to downhole operations inside the park. The 9B regulations provide no authority for requiring an operator to grant the NPS access for the purpose of observing compliance with terms unrelated to the downhole activities in the park.

**Monitoring.** The NPS's ability to monitor and inspect directional drilling operations is limited to downhole operations within the park (e.g., surface casing, cementing, plugging operations, etc.). As a practical matter, monitoring of downhole activities inside the park can only be accomplished from the surface location outside the park. As a result, the NPS may need to access the surface location and should make such access a condition of an exemption under option #2 or a condition of approval under option #3. The NPS must coordinate the timing of such access with the operator. The 9B regulations provide no authority to require an operator to grant the NPS access for the purpose of observing compliance with terms unrelated to the downhole activities inside the park. When the NPS has made an upfront determination that a directional drilling operation is exempt without conditions from the regulations because of the lack of impacts, there is no 9B regulatory reason to access the surface location outside the park.

To ensure that directional drilling operations inside a park are being conducted in accordance with an exemption determination or an approved plan, the NPS has two monitoring options. The Service can have a qualified individual (NPS employee or a mutually agreed upon third-party contractor hired by the operator) on location to witness the well casing, cementing and well plugging programs within the park, or the NPS can require the operator to submit drilling records that demonstrate that the well casing, cementing program, and plugging program were completed as proposed. Selection of the appropriate option or combination of options should be worked out with the operator.

## **Applicability of the 9B Regulations to Transpark Pipelines**

Existing transpark oil and gas pipelines and their rights-of-way lie outside the scope of the 9B regulations. Transpark oil and gas pipelines have their point of origin and end point outside national parks, and, for the most part are not supporting nonfederal oil and gas operations in parks. As a result, they are not subject to the existing 9B regulations. However, if a nonfederal oil and gas operation in a park connects to such a pipeline via a flowline or a gathering line, that portion of the flowline or gathering line crossing the park would be subject to the 9B regulations, including the Plan of Operations requirement.

While most transpark oil and gas pipelines are not subject to the 9B regulations, they are either subject to federal Department of Transportation (DOT) regulations at 49 CFR Parts 190-199 or State of Texas requirements, and all other applicable federal and state laws. The DOT regulations govern safety and environmental protection considerations affiliated with interstate pipelines. Specifically, the DOT regulations cover testing, reporting, inspection, maintenance, corrosion control, and spill contingency plans of these pipelines. State regulations often mirror the federal requirements and govern intrastate pipelines. The Railroad Commission of Texas administers state requirements on all oil and gas pipelines under Texas law (see TX. Rev. Stat. S81.011(a) *et seq.*). Transpark



pipeline operators should note that if park system resources are damaged from the operation of their pipeline in a park unit, the NPS can exercise its authority under the Act of July 27, 1990, Pub. L. No. 101-337, 104 Stat. 379, codified as amended at 16 U.S.C. §§ 19jj through 19jj-4 (2000), to undertake all necessary actions to protect park system resources. Operators will be held liable to the United States for its response costs as well as for any damages to park system resources. (See id. at § 19jj-1.)

The NPS management policies, legal requirements, and performance standards and suggested mitigation measures to protect park resources and values presented in Parts II and Part III respectively may be useful to transpark pipeline owners in planning and conducting their operations.

**Table 2.19. Summary of Compliance Requirements for Directional Drilling Proposals from Surface Locations Outside a Park.**

<b>Option</b>	<b>Scope of NEPA Analysis</b>	<b>Endangered Species Act</b>	<b>National Historic Preservation Act</b>	<b>Floodplains Executive Order</b>	<b>Wetlands Executive Order</b>	<b>Mitigation Measures</b>
<b>Exemption with No Mitigation</b>	The NEPA analysis (most likely an EA) would focus on environmental effects from the downhole operations in the park. The potential impacts of the connected actions on park resources and values would also be disclosed. Impacts outside the park would be qualitatively assessed.	<p>Granting an exemption is non-discretionary under this option. ESA § 7 consultation for activities occurring in the park is not required because there would be no effect on federally listed threatened and endangered species and/or critical habitat.</p> <p>In the event that connected operations outside the park could affect a T&amp;E species or critical habitat in or outside the park, consultation and mitigation under the ESA would be required. The NPS would be the lead federal agency carrying out the ESA consultations outside of the park if there is no other federal entity with broader regulatory involvement.</p>	<p>There is no potential for impact on cultural resources in the park from the downhole operations in the park.</p> <p>The NPS has no Section 106 responsibility with respect to the National Historic Preservation Act of 1966, as amended, for wells that originate on non-federal lands located outside the Unit, for which the wellbores would cross through the Unit to extract non-federally owned hydrocarbons from beneath the Unit. The Advisory Council on Historic Preservation concurred with this finding on September 13, 2004.</p>	There is no potential for impact to federally-owned or controlled floodplains in the park from the downhole operations in the park. No action is required by the NPS under the Executive Order. Other federal agencies having broader permitting authority for the proposal would need to comply with the Executive Order if floodplains would be affected by the operation.	There is no potential for impact to federally-owned or controlled wetlands in the park from the downhole operations in the park. No action is required by the NPS under the Executive Order. Other federal agencies having broader permitting authority for the proposal would need to comply with the Executive Order if wetlands would be affected by the operation.	<ul style="list-style-type: none"> <li>- NPS mitigation measures/ conditions would not be applied to the exemption.</li> <li>- The operator can voluntarily apply mitigation measures to reduce indirect impacts on park resources and values from connected actions outside the park.</li> <li>- The NPS will work cooperatively with other agencies during their permitting processes to identify potential impacts on park resources and values and recommend mitigation measures/conditions of approval.</li> <li>- If NPS is “lead” federal agency following ESA § 7 consultation, the Service may require mitigation measures/ conditions to protect threatened and endangered species and habitat both inside and outside the park.</li> </ul>

Option	Scope of NEPA Analysis	Endangered Species Act	National Historic Preservation Act	Floodplains Executive Order	Wetlands Executive Order	Mitigation Measures
<b>Exemption with Mitigation</b>	Same as Option #1	<p>Granting an exemption is discretionary under this option. NPS is required to determine if federally listed threatened and endangered species and/or critical habitat may be affected inside the park from in-park operations.</p> <p>The NPS would be the lead federal agency carrying out the consultations both inside and outside of the park if there is no other federal entity with broader regulatory involvement.</p>	Same as Option #1	Mitigation/conditions applied to ensure the integrity of downhole operations in the park reduces the likelihood of impacts to floodplains in the park; no action is required by the NPS under the Floodplains Executive Order.	Mitigation/conditions applied to ensure the integrity of downhole operations in the park reduces the likelihood of impacts to wetlands in the park; no action is required by the NPS under the Wetlands Executive Order.	The compliance responsibilities are the same as Option # 1, except: NPS may require mitigation measures/conditions to reduce impacts to subsurface park resources associated with downhole operations inside the park.
<b>Plan of Operations</b>	Same as Option #1	Same as Option #2.	If potential impacts to cultural resources could not be mitigated, the NPS would follow its standard procedures for conducting consultations with the SHPO/THPO but focus its consultation on the downhole operations inside the park.	Same as Option #2. If potential impacts to floodplains could not be mitigated, the NPS must follow its standard procedures in the NPS Director's Order/ Procedures Manual and prepare a <i>Floodplains Statement of Findings</i> pertaining to the downhole operations within the park.	Same as Option #2. If potential impacts to wetlands could not be mitigated, the NPS must follow its standard procedures in the NPS Director's Order/ Procedures Manual and prepare a <i>Wetlands Statement of Findings</i> pertaining to the downhole operations within the park.	Same as Option #2.

# NPS MANAGEMENT POLICIES, LEGAL REQUIREMENTS, AND PERFORMANCE STANDARDS

## Air Quality

**NPS Management Policy:** The Service “will seek to perpetuate the best possible air quality in parks to (1) preserve natural resources and systems; (2) preserve cultural resources; and (3) sustain visitor enjoyment, human health, and scenic vistas. Vegetation, visibility, water quality, wildlife, historic and prehistoric structures and objects, cultural landscapes, and most other elements of a park environment are sensitive to air pollution...The Park Service will assume an aggressive role in promoting and pursuing measures to protect these values from the adverse impacts of air pollution.” (NPS 2001, § 4.7.1)

**Supporting laws, regulations, policies, and executive orders:** NPS Organic Act of 1916, as amended (16 U.S.C. §§ 1 *et seq.*); 36 CFR § 9.37(a)(1); Clean Air Act, as amended (42 U.S.C. §§ 7401-7671q); 40 CFR Parts 23, 50, 51, 52, 58, 60, 61, 82, and 93; 48 CFR Part 23; NPS new source review policies for air pollution sources; RM-77 Natural Resources Management; TEX. ADMIN. CODE tit. 16, §§ 3.36, and 3.94.

**Performance Standard:** Design and conduct operations in a manner that minimizes air pollution emissions and impacts.

## Soils

**NPS Management Policy:** “The Service will actively seek to understand and preserve the soil resources of parks, and to prevent, to the extent possible, the unnatural erosion, physical removal, or contamination of the soil, or its contamination of other resources.” (NPS 2001, § 4.8.2.4)

**Supporting laws, regulations, policies, and executive orders:** NPS Organic Act of 1916, as amended (16 U.S.C. §§ 1 *et seq.*); Park System Resource Protection Act (16 U.S.C. § 19jj); 36 CFR §§ 9.37(a)(1), 9.39, and 9.45; Resource Conservation and Recovery Act (42 U.S.C. §§ 6901 *et seq.*); 40 CFR Parts 240-280; 49 CFR Parts 171-179; Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. §§ 9601-9675); 40 CFR Parts 279, 300, 302, 355, and 373; 36 CFR Part 6; Department of the Interior’s Onshore Oil and Gas Order Number 2, Section III, Drilling Abandonment Requirements; TEX. ADMIN. CODE tit. 16, §§ 3.8, 3.13, 3.20, 3.21, 3.24, 3.46, 3.57, 3.70, 3.91, 3.93, 3.94, 3.99, and 3.10.

### Performance Standards:

- 1) Avoid or minimize soil compaction.
- 2) Avoid or minimize soil loss or removal.
- 3) Avoid or minimize soil erosion.
- 4) Prevent soil contamination.
- 5) Re-establish contours and soil chemistry to support and sustain native vegetative communities that existed prior to the initiation of operations.

## Water Resources

**NPS Management Policy:** “The National Park Service will perpetuate surface waters and groundwaters as integral components of park aquatic and terrestrial ecosystems. Park waters – either surface waters or groundwaters – will be withdrawn for consumptive use only when such withdrawal is absolutely necessary for the use and management of the park. The Service will determine the quality of park surface and groundwater resources and avoid, whenever possible, the pollution of park waters by human activities occurring within and outside of parks.” (NPS 2001, §§ 4.6.1, 4.6.2, and 4.6.3)

**Supporting laws, regulations, policies, and executive orders:** NPS Organic Act of 1916, as amended (16 U.S.C. §§ 1 *et seq.*); Park System Resource Protection Act (16 U.S.C. § 19jj); 36 CFR §§ 9.35, 9.39, 9.41(a), and 9.45; Safe Drinking Water Act of 1974 (42 U.S.C. §§ 300f *et seq.*); 40 CFR Parts 141-148; Federal Water Pollution Control Act of 1972 (33 U.S.C. §§ 1251 *et seq.*); 33 CFR Parts 320-330; 40 CFR Parts 110, 112, 116, 117, 230-232, 323, and 328; Rivers and Harbors Act of 1899, as amended (33 U.S.C. §§ 401 *et seq.*); 33 CFR Parts 114, 115, 116, 321, 322, and 333; Oil Pollution Act (33 U.S.C. §§ 2701-2761); 15 CFR Part 990; 33 CFR Parts 135, 137, and 150; 40 CFR Part 112; 49 CFR Part 106; Wilderness Act (16 U.S.C. §§ 1131 *et seq.*); Resource Conservation and Recovery Act (42 U.S.C. §§ 6901 *et seq.*); 40 CFR Parts 240-280, 49 CFR Parts 171-179; Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. §§ 9601-9675); 40 CFR Parts 279, 300, 302, 355, and 373; Spill Prevention Control and Countermeasure Plan (40 CFR Part 112); Department of the Interior’s Onshore Oil and Gas Order Number 2, Section III, Drilling Abandonment Requirements; TEX. ADMIN. CODE tit. 16, §§ 3.8, 3.9, 3.13, 3.14, 3.20, 3.21, 3.24, 3.46, 3.57, 3.70, 3.91, 3.93, 3.94, 3.99, and 3.100.

### Surface Water Performance Standards:

- 1) Maintain existing quality of all surface waters.
- 2) Avoid diminishing the quantity of surface waters.
- 3) Avoid altering drainage characteristics of the area or hydrology of the soils.

### Groundwater Performance Standards:

- 1) Maintain the existing quality of groundwater.
- 2) Avoid diminishing the quantity of groundwater.
- 3) Avoid altering the natural movement of groundwater.

## Floodplains

**NPS Management Policy:** “In managing floodplains on park lands, the National Park Service will (1) manage for the preservation of floodplain values; (2) minimize potentially hazardous conditions associated with flooding; and (3) comply with the NPS Organic Act of 1916, as amended and all other federal laws and Executive Orders related to the management of activities in flood-prone areas, including Executive Order 11988 (Floodplain Management), NEPA, applicable provisions of the Clean Water Act, and the Rivers and Harbors Appropriation Act of 1899.” (NPS 2001, § 4.6.4)

**Supporting laws, regulations, policies, and executive orders:** NPS Organic Act of 1916, as amended (16 U.S.C. §§ 1 *et seq.*); Park System Resource Protection Act (16 U.S.C. § 19jj); 36 CFR §§ 9.37(a)(1), 9.39, and 9.41(a); Executive Order 11988 (Floodplain Management); Spill Prevention Control and Countermeasure Plan (40 CFR Part 112); NPS Director’s Order and Reference Manual 77-2, Floodplain Management; National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321 *et seq.*), 40 CFR Parts 1500-1508; National Flood Insurance Act of 1968; Flood

Disaster Prevention Act of 1973; TEX. ADMIN. CODE tit. 16, §§ 3.8, 3.9, 3.13, 3.14, 3.20, 3.21, 3.24, 3.46, 3.57, 3.70, 3.91, 3.93, 3.94, 3.99, and 3.100.

**Performance Standards:**

- 1) Restore and preserve natural floodplain values.
- 2) Avoid the long and short-term environmental impacts associated with the occupancy and modification of floodplains.
- 3) Avoid direct and indirect support of floodplain development wherever there is a practical alternative. When no practical alternative exists avoid adverse environmental impacts as well as risk to life and property through appropriate mitigation utilizing nonstructural methods when possible.

## Vegetation

**NPS Management Policy:** “The National Park Service will maintain as parts of the natural ecosystems of parks all native plants and animals.” The Service will achieve this maintenance by:

- “Preserving and restoring the natural abundances, diversities, dynamics, distributions, habitats, and behaviors of native plant and animal populations and their communities and ecosystems in which they occur;
- Restoring native plant and animal populations in parks when they have been extirpated by past human-caused actions; and
- Minimizing human impacts on native plants, animals, populations, communities, and ecosystems, and the processes that sustain them.” (NPS 2001, §§ 4.1.5, and 4.4)
- (Also refer to the Threatened and Endangered Species section.)

**Supporting laws, regulations, policies, and executive orders:** NPS Organic Act of 1916, as amended (16 U.S.C. §§ 1 *et seq.*); Park System Resource Protection Act (16 U.S.C. § 19jj); 36 CFR §§ 9.37(a)(1), 9.39, 9.41(b), and 9.45; Spill Prevention Control and Countermeasure Plan (40 CFR Part 112); Executive Order 13112 (Control of Invasive Species); Department of the Interior’s Onshore Oil and Gas Order Number 2, Section III, Drilling Abandonment Requirements; TEX. ADMIN. CODE tit. 16, §§ 3.13, 3.20, 3.21, 3.70, and 3.91.

**Performance Standards:**

- 1) Avoid or minimize damage to or removal of vegetation communities, particularly rare or imperiled plants communities identified by the State of Texas Parks and Wildlife Department.
- 2) Reclaim all disturbed areas to a condition that will be approximately equivalent to the pre-disturbance condition in terms of sustained support of functional physical processes, biological productivity, biological organisms, and land uses.
- 3) Prevent establishment of non-native (exotic) vegetation in all disturbed areas.

## Wetlands

**NPS Management Policy:** “The Service will (1) provide leadership and take action to prevent the destruction, loss, or degradation of wetlands; (2) preserve and enhance the natural and beneficial values of wetlands; and (3) avoid direct and indirect support of new construction in wetlands unless there are no practicable alternatives and the proposed action includes all practicable measures to minimize harm to wetlands. The Service will implement a “no net loss of wetlands” policy.” (NPS 2001, § 4.6.5)

**Supporting laws, regulations, policies, and executive orders:** NPS Organic Act of 1916, as amended (16 U.S.C. §§ 1 *et seq.*); Park System Resource Protection Act (16 U.S.C. § 19jj); 36 CFR §§ 9.35, 9.36(a)(16)(iv), 9.37(a)(1), 9.39(b), 9.41(a), and 9.45; Rivers and Harbors Act of 1899, as amended (33 U.S.C. §§ 401 *et seq.*); 33 CFR Parts 114, 115, 116, 321, 322, and 333; Federal Water Pollution Control Act of 1972 (33 U.S.C. §§ 1251 *et seq.*); 33 CFR Parts 320-330; 40 CFR Parts 110, 112, 116, 117, 230-232, 323, and 328; Spill Prevention Control and Countermeasure Plan (40 CFR Part 112); Executive Order 11990 (Protection of Wetlands); NPS Director's Order and Procedural Manual 77-1, Wetland Protection; TEX. ADMIN. CODE tit. 16, §§ 3.8, 3.9, 3.13, 3.14, 3.20, 3.21, 3.24, 3.46, 3.57, 3.70, 3.91, 3.93, 3.94, 3.99, and 3.100.

**Performance Standards:**

- 1) Avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands.
- 2) Avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative.
- 3) Preserve the natural and beneficial values of wetlands.

## **Fish and Wildlife**

**NPS Management Policies:** “The National Park Service will maintain as parts of the natural ecosystems of parks all native plants and animals.” The Service will achieve this maintenance by:

- “Preserving and restoring the natural abundances, diversities, dynamics, distributions, habitats, and behaviors of native plant and animal populations and their communities and ecosystems in which they occur;
- Restoring native plant and animal populations in parks when they have been extirpated by past human-caused actions; and
- Minimizing human impacts on native plants, animals, populations, communities, and ecosystems, and the processes that sustain them.” (NPS 2001, §§ 4.1.5, and 4.4)

**Supporting laws, regulations, policies, and executive orders:** NPS Organic Act of 1916, as amended (16 U.S.C. §§ 1 *et seq.*); Park System Resource Protection Act (16 U.S.C. § 19jj); 36 CFR §§ 9.37(a)(1), 9.39, 9.41(e), and 9.45; Migratory Bird Treaty Act, as amended (16 U.S.C. §§ 703-712); 50 CFR Parts 10, 12, 20, and 21; Executive Order 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds); Lacey Act, as amended (16 U.S.C. §§ 3371 *et seq.*); 15 CFR Parts 10, 11, 12, 14, 300, and 904; TEX. ADMIN. CODE tit. 16, §§ 3.20, 3.22, and 3.70.

**Performance Standards:**

- 1) Avoid or minimize disturbances to native fish and wildlife habitat.
- 2) Prevent fish and wildlife exposure to contaminants.
- 3) Avoid or minimize injury or death to fish and wildlife.
- 4) Reclaim disturbed fish and wildlife habitat to provide for their survival.

## **Species of Special Concern**

**NPS Management Policy:** “The Service will survey for, protect, and strive to recover all species native to national park system units that are listed under the Endangered Species Act. The National Park Service will inventory, monitor, and manage state and locally listed species in a manner similar to its treatment of federally listed species, to the greatest extent possible. In addition, the Service

will inventory other native species that are of special management concern to parks (such as rare, declining, sensitive, or unique species and their habitats) and will manage them to maintain their natural distribution and abundance. The Service will determine all management actions for the protection and perpetuation of federally, state, or locally listed species through the park management planning process, and will include consultation with lead federal and state agencies as appropriate” (NPS 2001, § 4.4.2.3).

**Supporting laws, regulations, policies, and executive orders:** NPS Organic Act of 1916, as amended (16 U.S.C. §§ 1 *et seq.*); Park System Resource Protection Act (16 U.S.C. § 19jj); 36 CFR §§ 9.36(i), 9.37(a)(1), and 9.39; Endangered Species Act of 1973 (16 U.S.C. §§ 1531-1544); 36 CFR Part 13; 50 CFR Parts 10, 17, 23, 81, 217, 222, 225, 402, and 450; Spill Prevention Control and Countermeasure Plan (40 CFR Part 112); Migratory Bird Treaty Act (16 U.S.C. §§ 703-712); 50 CFR Parts 10, 12, 20, and 21; Executive Order 13186 (Responsibilities of Federal Agencies to Protect Migratory Birds); Lacey Act, as amended (16 U.S.C. §§ 3371 *et seq.*); 15 CFR Parts 10, 11, 12, 14, 300, and 904; TEX. ADMIN. CODE tit. 16, §§ 3.20, 3.22, and 3.70.

### **Performance Standards:**

- 1) Avoid adverse impacts on state and federally listed threatened, endangered, rare, declining, sensitive, and candidate plant and animal species and their habitats.
- 2) Ensure the continued existence of state and federally listed threatened, endangered, rare, declining, sensitive, and candidate plant and animal species and their habitats.
- 3) Ensure that permitted operations aid in the recovery of state and federally listed threatened, endangered, rare, declining, sensitive, and candidate plant and animal species and their habitats.

The NPS cooperates with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, the lead agencies in matters pertaining to federally listed threatened and endangered animals. The NPS also cooperates with the Texas Parks and Wildlife Department, responsible for state-listed species, on a project-specific basis, to evaluate potential impacts on state-listed species and determine appropriate mitigation measures.

The NPS shall identify all federal and state listed threatened, endangered, rare, declining, sensitive, or candidate species that are native to and present in the parks, and their critical habitats. These species and their critical habitats will be considered in NPS permitting of nonfederal oil and gas operations. Based on an analysis of the status of state and locally listed species throughout their native ranges and through the National Park System, the NPS may choose to control access to critical habitats or to conduct active management programs similar to activities conducted to perpetuate the natural distribution and abundance of federally-listed species.

## **Cultural Resources**

**NPS Management Policies:** “The National Park Service is the steward of many of America’s most important cultural resources. These resources are categorized as archeological resources, cultural landscapes, ethnographic resources, historic and prehistoric structures, and museum collections. The Service’s cultural resource management program involves:

- Research to identify, evaluate, document, register, and establish basic information about cultural resources and traditionally associated peoples;
- Planning to ensure that management processes for making decisions and setting priorities integrate information about cultural resources, and provide for consultation and collaboration with outside entities; and



- Stewardship to ensure that cultural resources are preserved and protected, receive appropriate treatments (including maintenance), and are made available for public understanding and enjoyment.

The cultural resource management policies of the National Park Service are derived from a suite of historic preservation, environmental, and other laws, proclamations, Executive Orders, and regulations. A comprehensive list can be found in the Cultural Resource Management Handbook issued pursuant to Director's Order #28. Taken collectively, they provide the Service with the authority and responsibility for managing cultural resources in every unit of the national park system so that those resources may be preserved "unimpaired for future generations." (NPS 2001, Chapter 5)

**Archeological Resource.** "Any material remains or physical evidence of past human life or activities which are of archeological interest, including the record of the effects of human activities on the environment. An archeological resource is capable of revealing scientific or humanistic information through archeological research."

**Cultural Landscape.** "A geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person, or exhibiting other cultural or esthetic values. There are four non-mutually exclusive types of cultural landscapes: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes."

**Ethnographic Resources.** "Objects and places, including sites, structures, landscapes, and natural resources, with traditional cultural meaning and value to associated peoples. Research and consultation with associated people identifies and explains the places and things they find culturally meaningful. Ethnographic resources eligible for the National Register of Historic Places are called traditional cultural properties."

**Historic Property.** "A district, site, building, structure, or object significant in the historic of American archeology, architecture, culture, engineering, or politics at the national, state, or local level."

**Supporting laws, regulations, policies, and executive orders:** NPS Organic Act of 1916, as amended (16 U.S.C. §§ 1 *et seq.*); Park System Resource Protection Act (16 U.S.C. § 19jj); 36 CFR §§ 9.37, 9.37(e), 9.39, and 9.47; National Historic Preservation Act of 1966, as amended (16 U.S.C. §§ 470-470x-6); 36 CFR Parts 60, 63, 78, 79, 800, 801, and 810; Antiquities Act of 1906 (16 U.S.C. §§ 431-433); 43 CFR Part 3; American Indian Religious Freedom Act, as amended (42 U.S.C. §§ 1996-1996a); 43 CFR Part 7; Historic Sites, Buildings and Antiquities Act (Historic Sites Act of 1935) (16 U.S.C. §§ 461-467); 18 CFR Part 6, 36 CFR Parts 1, 62, 63, and 65; Archaeological Resources Protection Act of 1979 (16 U.S.C. §§ 470aa-470mm); 18 CFR Part 1312; 32 CFR Part 229; 36 CFR Part 296; 43 CFR Part 7; Native American Graves Protection and Repatriation Act (25 U.S.C. §§ 3001-3013); 43 CFR Part 10; National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321 *et seq.*); 40 CFR Parts 1500-1508; the Advisory Council on Historic Preservation's regulations regarding "Protection of Historic Properties" (36 CFR Part 800), the Secretary of the Interior's "Standards and Guidelines for Archeology and Historic Preservation" (FR 48:44716), Executive Order 11593 (Protection and Enhancement of the Cultural Environment); Executive Order 13007 (Indian Sacred Sites); Mining in the Parks Act of 1976 (P.L. 94-429).

### **Performance Standards:**

- 1) Provide for the protection of all cultural resources by preventing the destruction, alteration, or impairment of all or part of the cultural property.
- 2) Prevent the isolation from or alteration to cultural resources with its surrounding environment.

- 3) Prevent the alteration or introduction of visual, audible or atmospheric elements that are out of character with the cultural resources property or its setting.

### **Archeological Surveys**

The NPS has developed the following approach for archeological surveys to identify, evaluate, and protect historic properties in compliance with the NHPA, other statutes, and NPS policy and be feasible for the operators in NPS units:

- Any activities that do not qualify as ground disturbing (i.e., hand-held drilling of shot holes of 3-inch diameter or less, and non-rutting vehicles) will not require an archeological survey.
- Wells and related facilities will not be allowed on any historic properties within an appropriate distance of these properties to avoid direct or indirect impacts to the integrity of such resources.
- Archeological surveys (including shovel testing) will be conducted prior to any ground-disturbing activities. Ground disturbance is defined as earth moving activities (blading, rutting, etc.) below 2 inches of the present ground surface. Particular care should be taken in areas where there is a high probability of archeological sites occurring. Areas of ground disturbance typically include access roads, storage areas, heavy equipment parking areas, well and production pads, and other related use areas including areas where fill has been removed or brought in to create roads or wellpads. Areas of disturbance should be restricted to an absolute minimum required for safe operation and construction of facilities.

When a cultural resource survey is required, the operator shall provide to the NPS the necessary cultural resources survey of the project area or area of effect. The cultural resource surveys may include identification and evaluation of archeological sites, historic structures, cultural landscapes, and traditional cultural properties, and must be conducted by professionally qualified cultural resource experts who have knowledge of the specific resource type in question. The NPS will provide operators with existing site-specific cultural resource information, where available.

Operator surveys will result in a final report that allows the NPS to determine National Register eligibility and effect. All newly discovered archeological sites will be recorded both on State of Texas computerized site forms and NPS Archeological Sites Management Information System (ASMIS) forms. GPS locations (requested in NAD 83) and site location maps will also be required.

- Operators shall employ a qualified archeologist to monitor all ground-disturbing activities. Qualified archeologists are those who meet the Secretary of Interior Standards and Guidelines for Archeology and Historic Preservation.

### **Unanticipated Discovery**

The NPS is responsible, under 36 CFR § 800.11, for providing a plan of action to address properties discovered during project implementation.

If any unknown cultural resource is discovered during the conduct of approved operations, and such resource might be altered or destroyed by the operations, the operator must immediately cease operations in the immediate area and notify the superintendent. The operator must leave the discovery intact until the superintendent grants permission to proceed with the operations (36 CFR § 9.47(b)). Before any further activities occur, a qualified cultural resource expert will assess the cultural resources, evaluate their National Register eligibility, and consult with the State Historic

Preservation Officer. Minor recordation, stabilization, or data recovery may be necessary during this action and will be conducted at the operator's expense. Until eligibility of the discovered historic properties can be determined, no further disturbance to the cultural resources may occur. Any plans for mitigating the negative impacts on historic properties will be subject to approval of the NPS, and it is the operator's responsibility to provide for any necessary mitigation measures.

### **Damage to Previously Identified Sites**

This stipulation applies to situations where operations have damaged a previously identified cultural resource that was visible on the ground surface. If, in its operations, a nonfederal oil and gas operator damages, or is found to have damaged, any historic or prehistoric ruin, monument, or site, or any object of antiquity subject to the Antiquities Act of 1906 or the Archaeological Resources Protection Act of 1979 (16 U.S.C. § 470) and the National Historic Preservation Act, as amended, the operator will prepare and implement a data recovery plan at his/her expense. The operator will obtain at his/her expense, a qualified permitted archeologist to carry out the specific NPS requirements.

A qualified cultural resource monitor may be required during operations or reclamation activities if the work is located in a particularly sensitive area and/or reclamation was not done immediately following operations. Additionally, the NPS may require an archeologist to inspect reroutes to determine if cultural sites were successfully avoided. If required, this information shall be included in a monitoring report submitted to the NPS, along with an assessment of the damage, if any, to the cultural resources that were to be avoided.

The operator's employees and subcontractors must be made aware that any collection of artifacts is punishable by law and that the company is liable under trespass regulations, the Antiquities Act, and the Archaeological Resources Protection Act for fines and possible costs for any cultural resources damaged by vehicular traffic or collection.

## **Visitor Use and Experience**

### **Lightscape Management**

**NPS Management Policy:** "The Service will preserve, to the greatest extent possible, the natural lightscapes of parks, which are natural resources and values that exist in the absence of human-caused light. Recognizing the roles that light and dark periods and darkness play in natural resource processes and the evolution of species, the Service will protect natural darkness and other components of the natural lightscape in parks." (NPS 2001, § 4.10)

**Supporting laws, regulations, policies, and executive orders:** NPS Organic Act of 1916, as amended (16 U.S.C. §§ 1 *et seq.*); Park System Resource Protection Act, 16 U.S.C. § 19jj; 36 CFR §§ 9.37(a)(1) and 9.39.

### **Performance Standard:**

- 1) Minimize the visibility of operations from public use areas, including information stations, day and overnight use areas, public access roads, hiking trails, and administrative use areas.

## Soundscape Management

**NPS Management Policy:** “The National Park Service will preserve, to the greatest extent possible, the natural soundscapes of parks. Natural soundscapes exist in the absence of human-caused sound. The natural soundscape is the aggregate of all the natural sounds that occur in parks, together with the physical capacity for transmitting natural sounds. The Service will restore degraded soundscapes to the natural condition wherever possible, and will protect natural soundscapes from degradation due to noise (undesirable human-caused sound)” (NPS 2001, § 4.9).

**Supporting laws, regulations, policies, and executive orders:** NPS Organic Act of 1916, as amended (16 U.S.C. §§ 1 *et seq.*); 36 CFR § 9.37(a)(1), Noise Control Act of 1972 (42 U.S.C. §§ 4901-4918); 40 CFR Part 211; Occupational Safety and Health Administration regulations.

### Performance Standard:

- 1) Preserve the natural quiet and natural sounds associated with Big Thicket National Preserve.

## Human Health and Safety

**NPS Management Policy:** “The saving of human life will take precedence over all other management actions as the Park Service strives to protect human life and provide for injury-free visits. While recognizing that there are limitations on its capability to totally eliminate all hazards, the Service and its concessioners, contractors, and cooperators will seek to provide a safe and healthful environment for visitors and employees. The Service will strive to identify recognizable threats to the safety and health of persons and to the protection of property by applying nationally accepted codes, standards, engineering principles, and the guidance contained in Director’s Orders #50, #58, and #83 and their associated reference manuals. When practicable, and consistent with congressionally designated purposes and mandates, the Service will reduce or remove known hazards and apply other appropriate measures, including closures, guarding, signing, or other forms of education. In doing so, the Service’s preferred actions will be those that have the least impact on park resources and values.” (NPS 2001, § 8.2.5.1)

**Supporting laws, regulations, policies, and executive orders:** NPS Organic Act of 1916, as amended (16 U.S.C. §§ 1 *et seq.*); Park System Resource Protection Act (16 U.S.C. § 19jj); 36 CFR §§ 9.36(a)(14), 9.37(a)(1), 9.39, 9.41(e, f), 9.43-9.46, and 9.45; National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321 *et seq.*); 40 CFR Parts 1500-1508; Resource Conservation and Recovery Act (42 U.S.C. §§ 6901 *et seq.*); 40 CFR Parts 240-280, 49 CFR Parts 171-179; Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. §§ 9601-9675); 40 CFR Parts 279, 300, 302, 355, and 373; Spill Prevention Control and Countermeasure Plan (40 CFR Part 112); 36 CFR Part 6; Pipeline Safety Act of 1992 (49 U.S.C. §§ 60101 *et seq.*); 49 CFR Subtitle B, Ch 1, Parts 190-199; Federal Water Pollution Control Act of 1972 (33 U.S.C. § 1251 *et seq.*); 33 CFR Parts 320-330; 40 CFR Parts 110, 112, 116, 117, 230-232, 323, and 328; Executive Order 12088 – Federal Compliance with Pollution Control Standards (3 CFR 1978 Comp. p. 243), amended by Executive Order 12580 (3 CFR 1987 Comp. p. 193).

### Performance Standard:

- 1) Operator shall take all necessary precautions to prevent human exposure to hazards (physical, chemical, and fire).

## High Pressure Precautions

**NPS Management Policy:** Same NPS Management Policy as is cited under Human Health and Safety (NPS 2001, § 8.2.5.1).

**Supporting laws, regulations, policies, and executive orders:** 36 CFR §9.43; Resource Conservation and Recovery Act (42 U.S.C. §§ 6901 *et seq.*); 40 CFR Parts 240-280; 49 CFR Parts 171-179; Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (42 U.S.C. §§ 960-9675); 40 CFR Parts 279, 300, 302, 355, and 373; Spill Prevention Control and Countermeasure Plan (40 CFR Part 112).

**Performance Standard:**

- 1) Operator must ensure that all equipment, methods, and materials will ensure proper pressure control of the well.

## Open Flow/Control of Wild Wells

**NPS Management Policy:** Same NPS Management Policy as is cited under Human Health and Safety (NPS 2001, § 8.2.5.1).

**Supporting laws, regulations, policies, and executive orders:** 36 CFR § 9.44; Resource Conservation and Recovery Act (42 U.S.C. §§ 6901 *et seq.*); 40 CFR Parts 240-280; 49 CFR Parts 171-179; Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (42 U.S.C. §§ 9601-9675); 40 CFR Parts 279, 300, 302, 355, and 373; Executive Order 12088 – Federal Compliance with Pollution Control Standards (3 CFR 1978 Comp. p. 243), amended by Executive Order 12580 (3 CFR 1987 Comp. p. 193); Spill Prevention Control and Countermeasure Plan (40 CFR Part 112).

**Performance Standard:**

- 1) Operator must ensure that all equipment, methods, and materials will ensure proper control of the well.

## Control of Contaminating and Hazardous Substances

**NPS Management Policy:** “The Service will make every reasonable effort to prevent or minimize the release of contaminants on, or that will affect, NPS lands or resources, and will take all necessary actions to control or minimize such releases when they occur. The Service will take affirmative and aggressive action to ensure that all NPS costs and damages associated with the release of contaminants are borne by those responsible for the contamination of NPS property.” (NPS 2001, § 9.1.6.2)

Contaminating substances is defined at 36 CFR § 9.31(n) as “those substances, including but not limited to, salt water, or any other injurious or toxic chemical, waste oil or waste emulsified oil, basic sediment, mud [drilling fluid] with injurious or toxic additives, or injurious or toxic substances produced or used in the drilling, development, production, transportation, or on-site storage, refining, and processing of oil and gas.”

**Supporting laws, regulations, policies, and executive orders:** 36 CFR §§ 9.31(n) and 9.45; Park System Resource Protection Act (16 U.S.C. § 19jj); Resource Conservation and

Recovery Act (42 U.S.C. §§ 6901 *et seq.*); 40 CFR Parts 240-280; 49 CFR Parts 171-179; Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (42 U.S.C. §§ 9601-9675); 40 CFR Parts 279, 300, 302, 355, and 373; Executive Order 12088 – Federal Compliance with Pollution Control Standards (3 CFR 1978 Comp. p. 243), amended by Executive Order 12580 – Superfund Implementation (3 CFR 1987 Comp. p. 193); Oil Pollution Act (33 U.S.C. §§ 2701-2761; Pipeline Safety Act of 1992 (49 U.S.C. § 60101 *et seq.*); 49 CFR Subtitle B, Ch 1, Parts 190-199; Federal Water Pollution Control Act of 1972 (33 U.S.C. §§ 1251 *et seq.*); 33 CFR Parts 320-330; 40 CFR Parts 110, 112, 116, 117, 230-232, 323, and 328; Spill Prevention Control and Countermeasure Plan (40 CFR Part 112).

### **Performance Standards:**

- 1) Operator shall take all necessary precautions to prevent the release of contaminating and hazardous substances into the environment.
- 2) Operator shall respond quickly and effectively to contain and clean up spills and restore damaged resources.

Operators conducting oil and gas drilling and production operations will often use or generate substances that meet this definition, and are therefore required to fully comply with the provisions of 36 CFR § 9.45 during the conduct of operations. Operators must include a "Contaminating or Toxic Substance Spill Control Plan" in their Plan of Operations (36 CFR § 9.36(a)(10)(vi)). The Spill Control Plan will:

- list the types and amounts of contaminating substances proposed for use in operations;
- describe potential hazards to humans and the environment and respective mitigation measures;
- describe actions to be taken to handle, store, clean up, and dispose of such substances;
- describe the equipment and methods for containment and clean up of contaminating substances, including a description of the equipment available on-site versus those available from local contractors; and
- include an emergency spill response plan in the event of accidents, fires, or spills, prepared by a qualified spill specialist.

If determined to be adequate by the superintendent, a Spill Prevention Control and Countermeasure Plan, required under 40 CFR Part 112, may be used to satisfy the oil spill contingency plan requirements under 36 CFR § 9.36(a)(10)(vi).

- Confine brine water and all other waste and contaminating substances to the smallest practicable area, and prevent escape of such substances due to percolation, rain, high water, or other causes. Properly store and promptly remove all wastes and contaminating substances to prevent contamination, pollution, damage, and injury to unit resources and values (36 CFR § 9.45).
- The operator will immediately stop work if contamination is found in the operating area and notify the park superintendent or his/her designated representative.
- The operator will be liable for pollution or other damages, as a result of their operations, to government-owned lands and property.
- Operators shall make efforts to use the least hazardous and/or contaminating substances necessary in the conduct of operations if those choices are available; and to store the minimum quantity on site needed to maintain operations.
- Hazardous and contaminating substances shall be properly stored in secondary containment systems.
- The operator shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under an approved Plan of Operations. This shall include liability arising from the occupancy or use of public lands under an approved Plan of Operations. This shall include liability arising from the release of any hazardous substance or

hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. §§ 9601, *et seq.*, or the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901, *et seq.*) on this approved surface use (unless the release or threatened release is wholly unrelated to operator's activity in this approved surface use), or resulting from the activity of operator on this approved surface use. This applies without regard to whether a release is caused by the operator, their agent, or unrelated third parties.

Any collection and laboratory analyses of soil sediment, surface or groundwater samples conducted before or after well drilling, production, or a change of ownership or lease rights, shall follow the NPS's "Guideline for the Detection and Quantification of Contamination at Oil and Gas Operations," contained in Appendix F.

## Hurricane Preparedness

**NPS Management Policy:** Same NPS Management Policy as is cited under Human Health and Safety (NPS 2001, § 8.2.5.1).

**Supporting laws, regulations, policies, and executive orders:** 36 CFR § 9.31(n), 9.37(a)(1), 9.41(a), 9.45; Park System Resource Protection Act (16 USC 19jj); Executive Order 11988 (Floodplain Management); NPS Director's Order and Procedural Manual 77-2, Floodplain Management; Executive Order 12777, Implementation of Federal Water Pollution Control Act § 311 and the Oil Pollution Act; Spill Prevention Control and Countermeasure Plan (40 CFR 112); National Flood Insurance Act of 1968; Flood Disaster Prevention Act of 1973; Resource Conservation and Recovery Act (42 USC §§ 6901 *et seq.*); 40 CFR 240-280; 49 CFR 171-179; Comprehensive Environmental Response, Compensation and Liability Act (42 USC § 9601 *et seq.*); 40 CFR Parts 300, 302, 355, 373; Oil Pollution Act (33 USC § 2701-2761); 40 CFR Part 112; 33 CFR Parts 135, 137, 150; 49 CFR Part 106; 15 CFR Part 990; 33 CFR Part 135; 33 CFR Part 137; National Flood Insurance Act of 1968; Flood Disaster Prevention Act of 1973; National Environmental Policy Act of 1969 (42 USC § 4231); 40 CFR 1500-1508; Big Thicket National Preserve Emergency Preparedness Plan.

### Performance Standard:

- 1) Minimize the potential harm to life, property, and park resources in the event of a hurricane.

## Integrated Pest Management

**NPS Management Policy:** "All park employees, concessioners, contractors, permittees, licensees, and visitors on all lands managed or regulated by the National Park Service will comply with NPS pest management policies. Integrated pest management (IPM) is a decision-making process that coordinates knowledge of pest biology, the environment, and available technology to prevent unacceptable levels of pest damage, by cost-effective means, while posing the least possible risk to people, resources, and the environment. Proposed pest management activities must be conducted according to the IPM process prescribed in NPS Reference Manual #77-7: Integrated Pest Management. Pest issues will be reviewed on a case-by-case basis. Controversial issues, or those that have potential to negatively impact the environment, must be addressed through established planning procedures and be included in an approved park management or IPM plan. IPM procedures will be used to determine when to implement pest management actions, and which combination of strategies will be most effective for each pest situation. Under the Service's IPM

program, all pesticide use on lands managed or regulated by the Service, whether that use was authorized or unauthorized, must be reported annually” (NPS 2001, § 4.4.5).

**Supporting laws, regulations, policies, and executive orders:** Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. §§ 136 *et seq.*); as amended by the Federal Environmental Pesticide Control Act and FIFRA amendments of 1975, 1978, 1980, 1982, and 1996; 40 CFR Parts 152-180, except Part 157; USDI Policies and Procedures (DM 517); Occupational Safety and Health Administration regulations, Executive Order 13112 – Control of Invasive Species (1999).

**Performance Standard:**

- 1) Avoid or minimize adverse impacts of pesticide use to nontarget species or resources.

## **Protection of Park Development and Survey Monuments**

**NPS Management Policy:** There is no applicable NPS Management Policy for this topic.

**Supporting laws, regulations, policies, and executive orders:** NPS Organic Act of 1916, as amended (16 U.S.C. §§ 1 *et seq.*); Park System Resource Protection Act (16 U.S.C. § 19jj); 36 CFR §§ 9.41(a, b).

**Performance Standards:**

- 1) Avoid impacts on existing or future park structures, development, and survey markers.
- 2) If impacts occur, restore, replace, or compensate for damages.
- 3) Reduce fire hazards to acceptable levels.



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