



National Park Service
United States Department of the Interior

BIG THICKET NATIONAL PRESERVE



Fire Management Facility Environmental Assessment

September 2006



In reply refer to:

United States Department of the Interior
NATIONAL PARK SERVICE
Big Thicket National Preserve
6044 FM 420
Kountze, Texas 77625
409-951-6700



L76(BITH)

September 7, 2006

Dear Reader:

Enclosed for your review and comment is an environmental assessment on the proposal to construct a fire cache/maintenance facility on National Park Service (NPS) property in the town of Woodville.

The National Park Service is asking for your comments on this proposal. You may submit your comments in the following ways:

- This document will be posted to the NPS's Planning Environment and Public Comment System or PEPC. You can access the system at <http://parkplanning.nps.gov> to post your comments.
- You may submit written comments to:
Superintendent
Big Thicket National Preserve
Attn: Chris Peapenburg
6044 FM 420
Kountze, TX 77625
- Finally, you may hand deliver comments to Big Thicket National Preserve.

Comments must be posted to PEPC, postmarked or hand delivered by October 10, 2006, to be accepted.

If we can be of further assistance, please do not hesitate to contact Fulton Jeansonne, Fire Management Officer, at 409-283-8654, Extension 22.

Sincerely,

Todd Brindle
Superintendent

Enclosure

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ENVIRONMENTAL ASSESSMENT
FIRE MANAGEMENT FACILITY

SEPTEMBER 2006

BIG THICKET NATIONAL PRESERVE
Tyler County, Texas

United States Department of the Interior • National Park Service

FIRE MANAGEMENT FACILITY ENVIRONMENTAL ASSESSMENT

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PURPOSE AND NEED

PURPOSE AND NEED FOR THE PROPOSED ACTION

The National Park Service (NPS) is proposing to construct a fire management facility on property owned by NPS near the town of Woodville, in Tyler County, Texas. The property is located at the juncture of County Road 1040 and U. S. Highway 69, approximately three miles south of Woodville.

The purpose of the proposed project is to provide a permanent fire management facility with adequate and functional space for the fire program staff at Big Thicket National Preserve, to minimize long term maintenance and operational costs, while sustaining an existing mutually beneficial operational relationship with the Texas Forest Service.

- **Provide a permanent fire management facility for Big Thicket National Preserve:** A permanent facility is needed because, although the preserve fire program is currently able to rent space in a Texas Forest Service (TFS) facility, there is no guarantee that cooperative agreement will be permanent if State plans or needs should change.
- **Provide a facility with adequate and functional space:** A new facility is needed because existing arrangements are inadequate for efficiently accomplishing all of the duties and associated tasks of the preserve fire program. The current facility provides inadequate office space, briefing room, training space, break areas, and vehicle maintenance space. A building in which most of the National Park Service (NPS) staff work does not have running water. Staff there cannot obtain water or use a restroom in the building in which they work. There is no room to accommodate seasonal fire crews. Some fire fighting equipment is stored in neighboring communities. Security fencing around the existing facility is inadequate; it is approximately 4 feet high, and access is controlled through metal swing gates that are locked after working hours. Most buildings at the existing facility do not meet the accessibility requirements of the Americans with Disabilities Act. Because the existing facility is not owned by NPS, the preserve cannot significantly modify it or construct additional structures to better accommodate its needs.
- **Minimize long term maintenance and operational costs:** A new facility is needed because the buildings at the existing facility are 50 to 60 years old. They are not energy efficient and they require frequent maintenance. The grounds of the existing facility require landscaping maintenance, such as watering, mowing and hedge trimming. The preserve shares the costs and labor needs for maintaining and operating the existing facility.
- **Sustain an existing operational relationship with the Texas Forest Service:** A facility in close proximity to the TFS is needed because preserve staff and TFS staff coordinate closely in fire management operations throughout the region. Personnel from the two services share equipment and duties, and sometimes operate as a single unit.

This EA has been prepared to analyze the impacts of the no action alternative and the preferred alternative, which is to provide a fire management facility for Big Thicket National Preserve. The EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and regulations of the Council on Environmental Quality (40 CFR 1508.9), and the National Park Service's Director's Order (DO) -12 (*Conservation Planning, Environmental Impact Analysis, and Decision-making*), and The National Historic Preservation Act of 1966 (as amended).

PURPOSE AND SIGNIFICANCE OF THE PRESERVE

Big Thicket National Preserve, an area in southeast Texas known for extensive biological diversity, is dedicated to protect, interpret, restore, and preserve those resources; while providing for research, public enjoyment, and closely managed consumptive activities authorized by Congress. The preserve contains remnants of a diverse ecological system and provides habitat for several threatened and endangered species. It protects public lands for recreation and research on the evolution of natural ecosystems. The preserve is located close to an urban/industrial area and facilitates educational programming to a broad audience regarding the interaction of humans with their environment.

Project Background, Previous Planning and Scoping

Previous Planning

The proposal to construct a fire management facility for Big Thicket National Preserve is consistent with National Park Service Management Policies 2001. The policies call for facilities to be "...harmonious with park resources, compatible with natural processes, esthetically pleasing, functional, energy and water efficient, cost-effective, universally designed, and as welcoming as possible to all segments of the population. Park facilities and operations will demonstrate environmental leadership by incorporating sustainable practices to the maximum extent practicable in planning, design, siting, construction, and maintenance."

The proposal is also consistent with previous planning efforts for the preserve, including the 2004 Fire Management Plan. The plan called for the continued cooperation with, and sharing of fire management duties with the TFS. With either of the alternatives discussed in this EA, the NPS fire management staff and equipment would remain in close proximity to the TFS facility in Woodville. That proximity would facilitate a continued efficient working relationship between the two agencies.

Scoping

Scoping is the effort to involve agencies, organizations, and the public in determining the issues to be addressed in the environmental document. Among other tasks, scoping determines important issues and eliminates issues determined not to be important; allocates assignments among the interdisciplinary team members and/or other participating agencies; identifies related projects and associated documents; identifies other permits, surveys, and consultations required with other agencies; and creates a schedule that allows adequate time to prepare and distribute the environmental document for public review and comment before a

final decision is made. Scoping is a process that seeks opinions and consultation from any agencies with interests or legal jurisdiction.

Internal Scoping. Internal scoping is an integral part of NPS projects. The project team includes preserve staff and NPS staff from the Intermountain Regional Office (IMRO). In April 2006 the project team met in Woodville, Texas to discuss potential alternatives for providing fire management services for the preserve, and related issues.

External Scoping. The NPS consulted with the U.S. Fish and Wildlife Service (USFWS) and the Texas Parks and Wildlife Department about any known federal threatened or endangered species or state species of concern within the study area. On July 11, 2006 the NPS Denver Service Center (DSC) sent a consultation to the USFWS offices in Houston, Texas. The NPS also consulted with the Texas Historical Commission in a letter August 14, 2006 to ensure that the requirements of Section 106 of the National Historic Preservation Act were properly addressed.

A letter to the public was posted on the internet on July 11, 2006; at the internet address <http://parkplanning.nps.gov>, announcing that an environmental assessment for the proposed fire management facility was being prepared. The letter solicited comments on the proposal from the public. No comments were received.

Announcements were placed in two local newspapers during the second week of July 2006, advising the public of the proposed fire management facility and that an environmental assessment for the facility was being prepared. The newspaper notices also solicited comments from the public. No comments were received.

ISSUES

Issues and concerns affecting this proposal were identified through internal scoping, from previous NPS planning efforts, and input from state and federal agencies. The major issue is the requirement for a fire management facility that provides adequate room for staff and equipment and which preserves the existing working relationship with TFS. Concerns include potential impacts to:

- Vegetation. Construction of a fire management facility would affect vegetation.
- Preserve Operations. Alternatives could affect preserve operations because of their effects on fire management efficiency and preparedness and the existing working relationship with TFS.
- Noise. Construction of a fire management facility could affect noise levels on neighboring properties.

Resources were considered in accordance with NPS Management Policies 2001. The NPS manages park resources to maintain them in an unimpaired condition for future generations in accordance with NPS specific statutes, including the Organic Act of 1916 and the National Parks Omnibus Management Act of 1998; general environmental laws such as the Clean Air Act, the Clean Water Act, the Endangered Species Act of 1973, the National Environmental Policy Act of 1969, as amended, and the National Historical Preservation Act of 1966.

IMPACT TOPICS

Derivation of Impact Topics

Specific impact topics were developed to focus the analysis and to allow comparison of the environmental consequences of each alternative. Issues that warrant further analysis were identified by NPS staff during the scoping process. The public did not identify any additional issues during public scoping. Impact topics were then identified for detailed analysis based on federal laws, regulations, and executive orders; NPS Management Policies 2001; and NPS knowledge of limited or easily impacted resources. A brief rationale for the selection of each impact topic is given below, as well as the rationale for dismissing specific topics from further consideration.

Impact Topics Analyzed in Detail

Vegetation

The 2001 publication *NPS Management Policies* requires protection of park resources, including vegetation, and the processes and conditions that sustain them. The National Environmental Policy Act of 1969 calls for an examination of impacts on all components of affected ecosystems. The action alternative would affect vegetation through clearing and ground disturbance, and the replanting of approximately one and a half acres with native Texas vegetation; therefore, vegetation is an impact topic that is analyzed in further detail in this environmental assessment.

Preserve Operations

Activities associated with construction supervision of the proposed fire management facility and post construction maintenance would affect preserve operations. Therefore, preserve operations is an impact topic that is analyzed in further detail in this environmental assessment.

Noise

U. S. Highway 69 parallels the eastern side of the property on which the proposed fire management facility would be built, and a private residence is located near the northwestern border of the property. Property along the south side of the NPS property is currently unoccupied. Should the preferred alternative be selected, it is likely that noise from U. S. Highway 69 would be audible above current levels on neighboring properties after construction of the fire management facility was complete. Therefore, noise is an impact topic that is analyzed in further detail in this EA.

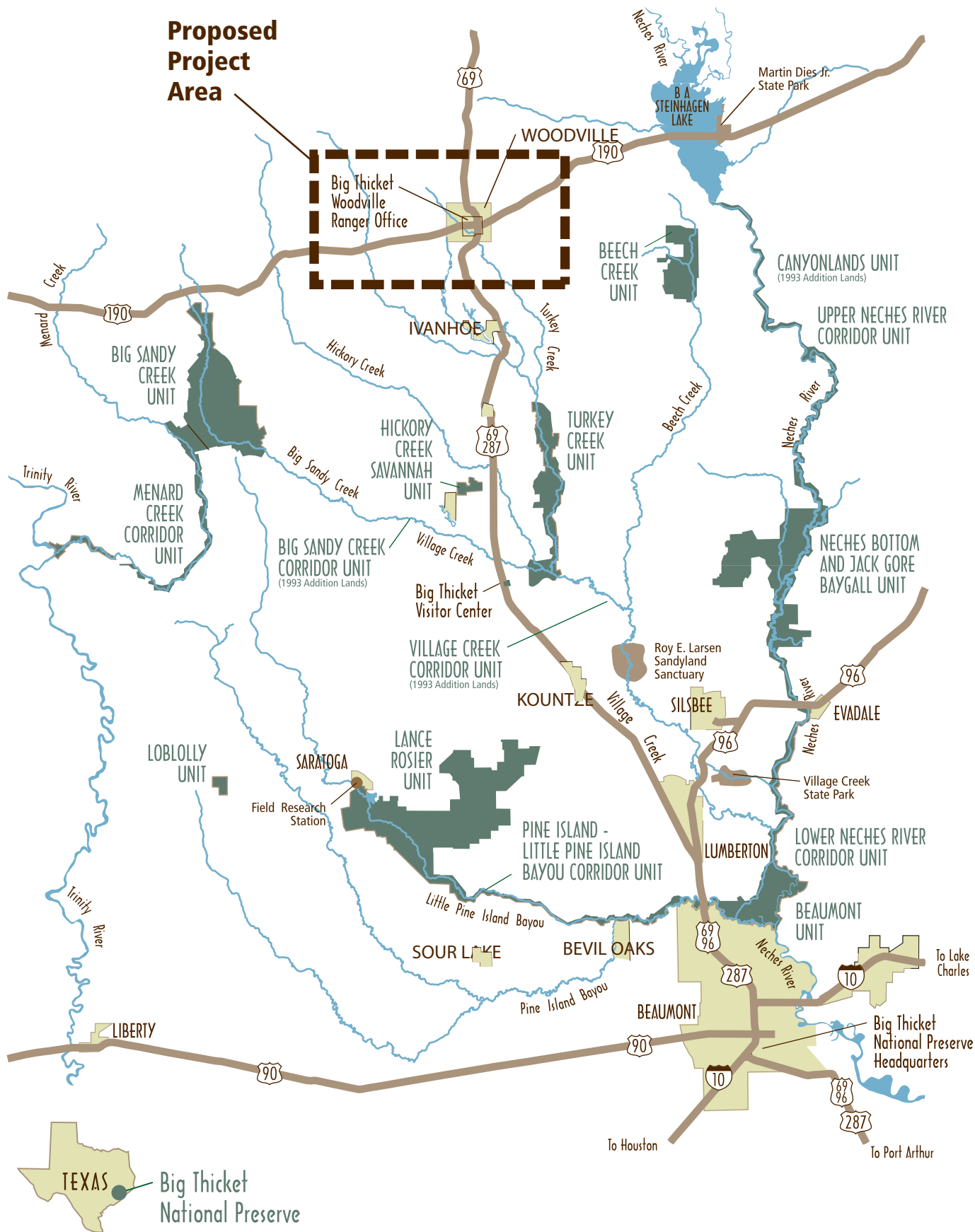


Figure 1- Proposed Project Area

BIG THICKET NATIONAL PRESERVE

United States Department of the Interior / National Park Service

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Impact Topics Dismissed from Further Analysis

Soils

The 2001 publication *NPS Management Policies* requires protection of park resources, including soils, to protect parks' scenery, natural and historic objects, and the processes and conditions that sustain them. The National Environmental Policy Act of 1969 calls for an examination of impacts on all components of affected ecosystems.

The action alternative would require excavation and grading of soil for a fire management building, vehicle and equipment areas, and parking, but the area of soil affected would be relatively small. Less than a third of an acre would have long term impacts. Approximately 3 acres would have short term impacts. Long term impacts would include permanent removal of soil from leveled areas where structures and pavement would cover the remaining soil profile. Short term impacts would include the temporary removal of topsoil and the potential for erosion. Mitigation measures, such as re-spreading the topsoil after construction, and erosion prevention during and after construction, would be relatively simple to implement, and adverse impacts would be minor. In accordance with the Texas Pollutant Discharge Elimination System, NPS would prepare a Storm Water Pollution Prevention Plan. Because impacts would be no greater than minor, soils will not be analyzed in detail in this EA.

Visitor Use and Experience

Providing for visitor enjoyment is one of the fundamental purposes of the NPS according to the Organic Act. Neither alternative has the potential to create more than negligible adverse impacts on visitor use and experience. The presence of a new fire management facility in Woodville would have a beneficial impact on public awareness of fire prevention and fire ecology in the preserve, but the facility would not directly serve the visiting public and existing visitor services would be unchanged. Therefore, visitor experience will not be analyzed in detail in this EA.

Floodplains

Executive Order 11988 (*Floodplain Management*) requires an examination of impacts to floodplains and potential risk involved in placing facilities within floodplains. *NPS Management Policies*, Director's Order 77-2: *Floodplain Management*, and Director's Order 12: *Conservation Planning, Environmental Impact Analysis, and Decision-making* provide guidelines for proposals in floodplains. *NPS Management Policies* provide direction for the preservation, use, and quality of water in national parks.

Neither alternative would impact floodplains. The existing facility shared with the Texas Forest Service is not located within a floodplain, and there are no floodplains within the proposed construction site. Therefore, floodplains will not be analyzed in detail in this EA.

Wetlands

Executive Order 11990 (*Protection of Wetlands*) requires an examination of impacts to wetlands. The 1972 Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977, is a national policy to restore and maintain the chemical, physical, and biological integrity of the nation's waters; to enhance the quality of water resources; and to prevent, control, and abate water pollution. *NPS Management Policies* provide direction for the preservation, use, and quality of water in national parks. Director's Order 77-1 *Wetland Protection* establishes NPS policies, requirements, and standards for implementing Executive Order (E.O.) 11990: *Protection of Wetlands*.

Neither alternative would impact wetlands. The existing facility shared with the Texas Forest Service does not impact wetlands, and there are no wetlands within the proposed construction site. Therefore, wetlands will not be analyzed in detail in this EA.

Wildlife

The NPS Organic Act, which directs parks to conserve wildlife unimpaired for future generations, is interpreted by the agency to mean that native animal life should be protected and perpetuated as part of the park's natural ecosystem. Natural processes are relied on to control populations of native species to the greatest extent possible; otherwise they are protected from harm by human activities. According to *NPS Management Policies 2001*, the restoration of native species is a high priority (sec. 4.1). Management goals for wildlife include maintaining components and processes of naturally evolving park ecosystems, including natural abundance, diversity, and the ecological integrity of plants and animals.

The proposed site was recently acquired by the preserve through donation and has been disturbed in the past by human activities. The property was cleared at one time for use as pasture, and regrew as mixed hardwood and pine forest with dense brush undergrowth. In July 2006 brush and other understory vegetation was mowed across approximately 3 acres of the property. The mixed forest and brush along the western boundary and at the northern end of the property were left in place. It is anticipated that the acres cut in July 2006 will regrow, and be thickly covered by brush.

An electrical power line runs north to south through the middle of the property, and a second power line runs east to west through the northern end of the property. The power line rights of way are managed with herbicides and mowing, restricting vegetation there primarily to grasses. There are no known surface water sources on the property.

Such habitat is of limited use to wildlife common in eastern Texas. The dense forest and understory provide refuge and shelter for many species, but most wildlife species require a more varied mix of open areas and thick cover, and better access to water than is available on the property. The proposed fire management facility site would not be considered unique or important habitat, in the context that such habitat would be scarce in the area, or of exceptional value for certain species.

The proposed site is largely surrounded by cleared developed lands. Connecting corridors to surrounding undeveloped lands are few and very narrow, so there is little access to more suitable habitat.

If a new fire management facility were built on the property, brush and other vegetation that has regrown since July 2006 would be cleared, and some land leveling would be required for construction of a building and associated parking. Construction of a new fire management facility would result in the permanent loss of some wildlife habitat. That loss would have a detectable adverse impact on wildlife, but it would not be expected to reduce the population of any native species to levels outside the natural range of variability. Because impacts to wildlife would be minor this topic is dismissed from further analysis in this EA.

Threatened and Endangered Species

The Endangered Species Act (1973), as amended, requires an examination of impacts on all federally listed threatened or endangered species. National Park Service policy also requires examination of the impacts on federal candidate species, as well as state-listed threatened, endangered, candidate, rare, declining, and sensitive species.

In a letter dated August 22, 2006 the U.S. Fish and Wildlife Service (USFWS) in Houston, Texas recommended a plant survey for the Texas trailing phlox if suitable habitat for that perennial herb exists on the NPS property. The USFWS advised of no other special concerns or objections regarding the proposed action. The letter from the USFWS is included with this EA in appendix A.

The Texas trailing phlox grows on sandy soils in fire-maintained open pine woodlands. The NPS owned property does not provide such habitat, so a survey for the plant is not considered necessary.

In an e-mail dated July 13, 2006 the Texas Parks and Wildlife Department (TPWD) provided a listing of plants and animals for which occurrences have been reported within the general vicinity of the proposed project. In a discussion about the TPWD species list, preserve staff indicated that the plants and wildlife included on the list would be present in the area only intermittently or were unlikely to be found in the area of the proposed project. The site would not provide either the open fire-maintained forest dominated by longleaf pine required by some of the state species, or the streams, bogs, and creek bottoms necessary for others. The e-mail from the TPWD is included with this EA in appendix A.

It is unlikely that federal or state listed species would be impacted by either of the alternatives discussed in this EA. Therefore, threatened and endangered species will not be further analyzed as an impact topic in this EA.

Water Quality

The 1972 Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251 et seq.) is a national policy to restore and maintain the chemical, physical, and biological integrity of the nation's waters; to enhance the quality of water resources; and

to prevent, control, and abate water pollution. Section 401 of the Clean Water Act requires a permit for any activity which may result in any discharge into the navigable waters of the United States. Section 404 of the Clean Water Act requires a permit for any activity which may result in the discharge of dredged or fill material into navigable waters, including wetlands. *NPS 2001 Management Policies* provide direction for the preservation, use, and quality of water in national park units.

Waste water at the current shared facility is disposed of through an existing sewage disposal system. A waste water disposal system for the proposed facility would meet all state regulations, and would be designed to minimize adverse impacts to ground water, such as contamination by waste water constituents. Impacts to ground water might be detectable, but the system would keep impacts well below water quality standards or criteria. There are no surface waters in the vicinity of the existing shared facility or within the property proposed for a new fire management facility. Because impacts would be no greater than minor, water quality will not be analyzed in detail in this environmental assessment.

Indian Trust Resources

Secretarial Order 3175 requires that any anticipated impacts to Indian trust resources from a proposed project or action by Department of Interior agencies be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes. Neither the lands on which the proposed fire management facility would be built nor the property currently shared with the state of Texas is held in trust by the Secretary of the Interior for the benefit of Indians due to their status as Indians. Therefore, Indian trust resources will not be analyzed in detail in this environmental assessment.

Prime or Unique Farmland

In 1980, the Council on Environmental Quality directed federal agencies to assess the effects of their actions on farmland soils classified as prime or unique by the United States Department of Agriculture, Natural Resources Conservation Service. Prime or unique farmland is defined as soil, which particularly produces general crops such as common foods, forage, fiber, and oil seed; unique farmland produces specialty crops such as fruits, vegetables, and nuts. The District Conservationist for the Natural Resources Conservation Service in Woodville advised in a telephone conversation that the proposed project area would be classified as prime or unique farmland. However, such soils are common throughout the area, and the proposed fire management facility would impact approximately 3 acres. Because the area of lands affected would be small compared to the size of the resource throughout the area, the effects on prime or unique farmland would be no greater than minor. Therefore, prime or unique farmland will not be analyzed in detail in this environmental assessment.

Environmental Justice

Executive Order 12898 (*General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*), requires all agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations or communities.

All communities and populations in the project area would be equally served by the NPS fire management services, and neither alternative would have disproportionately high adverse health or environmental effects on minorities or low-income populations or communities as defined in the Environmental Protection Agency's *Draft Environmental Justice Guidance* (July 1996). Therefore, environmental justice will not be analyzed in detail in this environmental assessment.

Designated Critical Habitat, Ecologically Critical Areas, Wild and Scenic Rivers, Other Unique Natural Areas

No areas within the project corridor are designated as critical habitat or ecologically critical, nor are there any existing or potential wild and scenic rivers. Therefore, designated critical habitat, ecologically critical areas, wild and scenic rivers, and other unique natural areas will not be analyzed in detail in this environmental assessment.

Air Quality

Air quality became a national concern in the mid-1960s, leading to the passage of the Air Quality Act in 1967. The Act (now referred to as the Clean Air Act) and subsequent amendments have established procedures for improving conditions, including a set of National Ambient Air Quality Standards. The U.S. Environmental Protection Agency is directed to set levels for pollutants in order to protect the public health. The National Ambient Air Quality Standards are adopted for six pollutants: carbon monoxide, nitrogen dioxide, ozone, particulate matter, sulfur dioxide, and lead. A system of monitoring stations is established across the country to measure progress in meeting these goals. If an area is found to exceed the allowable concentrations, local officials are required to develop a plan for achieving air quality that meets the standards.

Tyler County, the county in which the proposed project would be located, is not included in the 2006 County Air Quality Report list of Texas counties. That report, prepared by the Environmental Protection Agency (EPA) identifies counties in which EPA air quality standards were exceeded.

The Texas Commission on Environmental Quality (TCEQ) prepares a similar list, the Air Pollutant Watch List. The purpose of the Air Pollutant Watch List is to alert technical staff to cities or counties within the state that have areas with elevated air concentrations of special interest pollutants. Tyler County and Woodville were not included in the current TCEQ watch list.

Should the preferred alternative be selected, local air quality would be temporarily affected by dust and vehicle emissions. Hauling material and operating equipment during the construction period would result in increased vehicle exhaust and emissions. However, hydrocarbons, NO_x, and SO₂ emissions would be rapidly dissipated by air drainage.

Fugitive dust plumes from construction equipment would intermittently increase airborne particulates in the area near the project site, but loading rates are not expected to be appreciable. To partially mitigate these effects, such activity would be coupled with water sprinkling to reduce dust.

There would be long term localized increases in emission levels from vehicles going to and from a new fire management facility. However, emissions there would not be greater than those from vehicles accessing the existing facility shared with the state, so emission levels in the general area would be unchanged in the long term.

Overall, there would be a negligible temporary degradation of local air quality due to dust generated from construction activities and emissions from construction equipment. These effects would last only as long as construction occurred. The area's air quality would not be expected to experience an increase in long term adverse effects because of the proposed project. Therefore, air quality will not be analyzed in detail in this document.

Socioeconomic Environment, including Land Use

The action alternative would have a beneficial short-term impact on the economies of nearby counties and other municipalities. There would be minimal increases in employment opportunities for the construction work force and revenues for local businesses and government generated from construction activities and workers. Any increase would be beneficial region-wide and short-term in duration, lasting only as long as the construction period.

Construction of a new fire management facility on NPS owned land at the juncture of County Road 1040 and U.S. Highway 69 would change the use of a Texas Department of Transportation (DOT) parking lot immediately adjacent to the southeast corner of the property. The lot would be removed to eliminate problems associated with its current use.

The lot was constructed by the DOT as a mass transit park and ride lot. It has fallen into disuse and has come to be used as an unofficial parking area for local log and chip truck drivers and a location for illicit dumping. The removal of the DOT lot would be noticeable, in that it would eliminate use by some truck drivers, but that adverse impact would be no greater than minor. Eliminating trash dumping on NPS owned land adjacent the DOT lot would have a beneficial impact on the property and the nearby community

The alternatives considered would not change land use in the wider surrounding region. The TFS facility currently houses NPS fire management operations, and construction of a new facility would not introduce a new type of facility in the community or region.

Because the adverse impact would be no greater than minor, impacts on the socioeconomic environment, including land use, will not be analyzed in detail in this environmental assessment.

Cultural Resources

National Park Service policy requires that the effects of National Park Service actions on cultural resources be considered, and that appropriate steps be taken to avoid, minimize, or mitigate these effects. The National Park Service distinguishes five types of cultural resources: archeological resources, historic structures, ethnographic resources, cultural landscapes, and museum collections.

A cultural resource survey of the parcel was conducted by Big Thicket personnel in July 2006, and an Archeological Monitoring Plan and Report was prepared. The survey found and documented two features on the parcel, including an old road sign and a can scatter with a possible trash pit. These features are not considered significant, but would nonetheless be avoided during construction. The survey report noted that the property was covered with Yaupon holly and timber, however, so ground surface visibility was poor. Additional cultural resource surveys and monitoring would be conducted in accordance with the Archeological Monitoring Plan during construction as the vegetation is cleared and as grading and subsurface excavations occur.

Other than the two features noted above, no other cultural resources are known to be located within the parcel. There are no historic structures, cultural landscapes or ethnographic resources; and Big Thicket National Preserve museum collections would not be affected. Because no cultural resources would be affected by any of the alternatives under consideration in this EA, this impact topic has been dismissed from further analysis.

In accordance with Section 106 of the National Historic Preservation Act, 36 CFR Part 800, documentation of “no adverse effect” was sent to the Texas State Historic Preservation Officer (SHPO) on August 14, 2006 for review and concurrence. In addition, a copy of this EA will be provided to the SHPO for their information.

NO ACTION ALTERNATIVE AND PREFERRED ALTERNATIVE

INTRODUCTION

This chapter describes two alternatives for the proposed fire management facility: a no action alternative and the preferred alternative. The purpose of the no action alternative is to provide a basis for comparing the actions and environmental consequences of the preferred alternative.

The no action alternative would continue the existing use of a facility shared with the Texas Forest Service. The preferred alternative in this EA is to construct a fire management facility on NPS owned property.

THE NO ACTION ALTERNATIVE, MAINTAIN CURRENT OPERATIONS IN THE TEXAS FOREST SERVICE FACILITY (ALTERNATIVE A)

The no action alternative would maintain the existing conditions at the Woodville District offices of the TFS. The seven permanent, six seasonal, and one term NPS staff members would continue to share office and equipment space with five TFS staff members in two buildings totaling approximately 3,400 square feet. A vehicle shop also provides approximately 500 square feet of space for some NPS all terrain vehicles and a fire engine. The NPS would continue to pay rent to the State of Texas for use of the TFS facilities. Some NPS fire management equipment would continue to be stored at facilities in neighboring communities.

The NPS staff would continue to share space in a facility that is inadequate for NPS fire management personnel and equipment. Some equipment, such as fire fighting vehicles, would continue to be stored at facilities in neighboring communities.

THE PREFERRED ALTERNATIVE, CONSTRUCT A FIRE MAINTENANCE FACILITY (ALTERNATIVE B)

The preferred alternative would entail construction of a new fire management facility. The facility under consideration would be approximately 6,800 square feet in size. It would include offices, meeting/conference/training rooms, storage and maintenance areas for tools, equipment, and clothing, plus open and covered storage areas outside for vehicles and equipment. It would be situated on a 6.25 acre parcel of land at the intersection of County Road 1040 and U.S. Highway 69, approximately 850 feet from the TFS facility.

Potable water would be supplied from a municipal water treatment plant located adjacent the northern end of the NPS owned property. Plans for delivering water to a new fire management facility have not been defined, but in any case a trench approximately 4 feet deep would be excavated for a buried water pipeline. Approximately 700 feet of excavation would be needed if the water line were installed along the east side of the NPS property. Approximately 800 feet of excavation would be needed for installation along the west side of the NPS property. If connecting to an existing water line immediately east of Highway 69 were determined as most feasible, less excavation would be needed.

Overhead electric power lines extend north to south through the length of the property and east to west across the north end of the property. NPS would install an electric transformer and would connect to the existing power lines. It is anticipated that telephone service would be provided via overhead lines. A septic tank and leach field would be installed to treat sewage.

The facility would match in character the preserve architectural pallet as established by the preserve headquarters/maintenance facility near the town of Kountze. Signage for the facility would use the current NPS Big Thicket National Preserve (BITH) sign design guidelines. An interpretive kiosk for preserve visitors would be included at the front exterior of the building. Separate parking areas for preserve staff and for visitors would be constructed at the front of the building.

Existing forest and dense brush understory along the western border and northern end of the property would be left in place. Approximately 3 acres of land would be cleared of vegetation and leveled. When construction is complete the areas impacted by construction activities but outside the footprint of the building, storage areas, and parking area (approximately 1 ½ acres) would be revegetated using native Texas plants and seeds.

STAGING AREA:

The 6.25 acre NPS owned property on which the proposed facility would be built would provide ample room for the staging area. The property has good access to transportation routes and materials and equipment could be stored, parked and maintained at the actual construction site.

GENERAL CONSTRUCTION COSTS AND SCHEDULE:

Estimated costs for construction are based upon unit construction estimates provided by the NPS Intermountain Region, Division of Facility Management. Construction costs would include; clearing and grubbing, linear grading, construction, and installation of utilities.. The estimated cost for construction of alternative B is approximately one million dollars. It is anticipated that construction of a fire management facility would be completed in December of 2007.

MITIGATION MEASURES OF THE ALTERNATIVES:

Mitigation measures are presented as part of the alternatives. These actions have been developed to reduce or eliminate the adverse effects of the alternatives. Table 1 explains the mitigation measures considered appropriate.

TABLE 1. MITIGATION MEASURES OF THE PREFERRED ALTERNATIVE	
RESOURCE AREA	MITIGATION MEASURE
Air Quality	Fugitive dust would be controlled by periodic water sprinkling.
Soils	During periods of heavy rainfall, the project engineer could issue a temporary stop order and work would be halted. Sustainable best management practices would be utilized to control storm water runoff.
	In accordance with Texas Pollutant Discharge Elimination System requirements, NPS would prepare a Storm Water Pollution Prevention Plan
	Topsoil would be removed from areas of construction and stored for later reclamation use. The topsoil would be respread in as near the original location as practicable in the construction zone and supplemented with scarification, mulching, seeding, and/or planting with species native to the immediate area.
Vegetation	A revegetation plan would be developed and implemented to restore disturbed areas. Revegetation success would be monitored following construction, and remedial and control measures would be implemented as needed.
	Ground surface treatment would include grading to natural contours, topsoil replacement, seeding, and planting. This work would occur as soon after the completion of construction as practicable.
	In an effort to avoid introduction of non-native / noxious plant species, no imported hay bales would be used during revegetation. On a case-by-case basis, the following materials may be used for any erosion control dams that may be necessary: certified weed-free rice straw, cereal grain straw that has been fumigated to kill weed seed, and wood excelsior bales.
	Undesirable plant species would be controlled and other undesirable species would be monitored and controlled, as necessary.
Wildlife and Special Status Species	In consultation with the USFWS and the State of Texas, the NPS would take measures to protect any sensitive species, whether they were identified through surveys or presumed to be present.
Cultural Resources	The Archeological Monitoring Plan prepared by preserve staff in July 2006 would be followed, with a monitor involved during activities that would result in land disturbance.
	In the event that potentially significant archeological resources are discovered during construction, halt or redirect work to another area of the project until finds can be documented, their significance assessed, and appropriate mitigation strategies developed in consultation with the Texas State Historic Preservation Officer.
	In the unlikely event that human remains or cultural items subject to the Native American Graves Protection and Repatriation Act (NAGPRA) are discovered, stop work in the area of the find, and follow the appropriate provisions of NAGPRA (43 CFR Part 10).

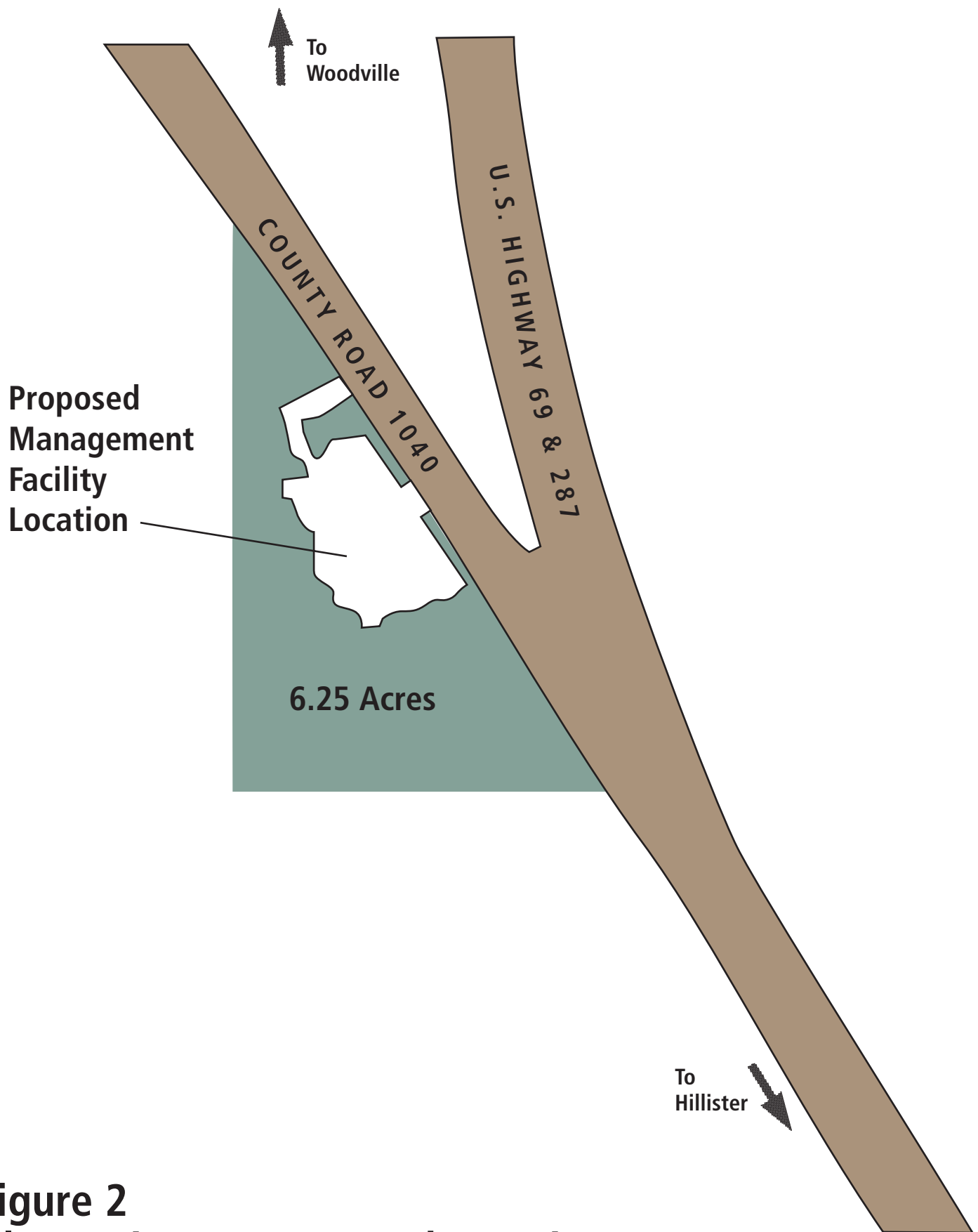


Figure 2 Alternative B - Proposed Location

BIG THICKET NATIONAL PRESERVE

U.S. Department of the Interior / National Park Service

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ALTERNATIVES COMPARISON

The following table compares and contrasts the alternatives, including the degree to which each alternative accomplishes the purpose or fulfills the need of the proposed project.

TABLE 2. ALTERNATIVES COMPARISON	
Alternative A – No Action	Alternative B – Preferred Alternative
<p>The no action alternative would maintain the existing conditions at the Woodville District offices of the TFS. The seven permanent, six seasonal, and one term NPS staff members would continue to share office and equipment space with five TFS staff members in two buildings totaling approximately 3,400 square feet. A vehicle shop also provides approximately 500 square feet of space for some NPS all terrain vehicles and a fire engine. The NPS would continue to pay rent to the state of Texas for use of the TFS facilities. Some NPS fire management equipment would continue to be stored at facilities in neighboring communities.</p> <p style="text-align: center;"><u>Meets Project Purpose and Need and Objectives?</u></p> <p style="text-align: center;">No</p> <p>The no action alternative would not provide a permanent facility. NPS would continue to rent space from the TFS.</p> <p>NPS would remain in a shared facility without adequate operational, equipment, training, staging, and storage space.</p> <p>NPS would remain in an older facility, sharing the maintenance and energy costs.</p> <p>The existing operation relationship with the TFS would be maintained.</p>	<p>A new fire management facility would be constructed. The facility would encompass approximately 6,800 square feet. It would include offices, meeting/conference/training rooms, storage and maintenance areas for tools, equipment, and clothing, plus open and covered storage areas outside for vehicles and equipment. It would be situated on a 6.25 acre parcel of land at the intersection of County Road 1040 and U.S. Highway 69, less than half a mile from the TFS facility.</p> <p>Slightly more than 3 acres on the property would be cleared of vegetation, although many of the hardwood trees and loblolly pines would be preserved. Approximately 3 acres of the existing vegetation would be left in place along the western border and northern end of the property. When construction is complete the site would be revegetated with native Texas plants.</p> <p style="text-align: center;"><u>Meets Project Purpose and Need and Objectives?</u></p> <p style="text-align: center;">Yes</p> <p>The preferred alternative would provide a permanent NPS owned facility to house fire management operations.</p> <p>NPS staff would occupy a facility with adequate operations, equipment, training, staging, and storage space.</p> <p>A new NPS facility would be energy efficient with low maintenance requirements.</p> <p>A new NPS facility would be in close proximity to the TFS facility, maintaining an existing operational relationship with the TFS.</p>

SUMMARY OF ENVIRONMENTAL CONSEQUENCES /IMPACT COMPARISON

The following table summarizes the impacts of the proposed alternatives on preserve resources.

TABLE 3. SUMMARY OF ENVIRONMENTAL CONSEQUENCES		
Impact Topic	Alternative A No Action	Alternative B Preferred Alternative
Vegetation	Alternative A would have no adverse impacts on vegetation. There would be no cumulative effects. Because there would be no major adverse impacts to vegetation, there would be no impairment of park resources or values.	Alternative B would have long term, moderate, adverse impacts and long term beneficial impacts on vegetation. Cumulative effects would be long term, moderate, and adverse. Because there would be no major adverse impacts to vegetation, there would be no impairment of preserve resources or values.
Preserve Operations	Alternative A would have long term, moderate, adverse impact on preserve operations. Cumulative impacts would be long term, moderate, and adverse.	Alternative B would have short term, minor, adverse impacts and long term beneficial impacts on preserve operations. Cumulative impacts would be short term, minor, adverse, in addition to long term beneficial.
Noise	Alternative A would have no impact on noise, and there would be no associated cumulative impacts.	Alternative B would have short term, minor, adverse, and long term, negligible, adverse impacts on noise. Cumulative impacts would be short term, moderate, and adverse.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

In accordance with DO-12, the NPS is required to identify the “environmentally preferred alternative” in all environmental documents, including EAs. Simply put, the environmentally preferred alternative is the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources. The environmentally preferred alternative is determined by applying the criteria identified in Section 101 of NEPA, which include:

1. fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations;
2. assuring for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings;
3. attaining the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
4. preserving important historic, cultural and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice;

5. achieving a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
6. enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletive resources (NEPA, section 101)."

Alternative A, the No Action alternative, is the environmentally preferred alternative because:

Alternative A would cause the least damage to the environment while protecting, preserving, and enhancing the resources of the preserve. Fire management operations at the preserve would continue and the cooperative relationship with the TFS would be maintained without disturbing the natural resources on the NPS owned property near Woodville.

Alternative B, Construct a Fire Maintenance Facility, is not the environmentally preferred alternative because:

Alternative B would require vegetation removal, excavation, and other construction related disturbance on the NPS owned property near Woodville. Construction of a new building and associated parking would permanently adversely impact natural resources such as soil, vegetation, wildlife habitat, and water quality. Some of the soil on the NPS property would be displaced and covered by the building, storage, and parking areas. Vegetation and wildlife habitat in those areas would also be permanently displaced. A sewage treatment system with a leach field would be installed to serve the new facility. Adverse effects on natural resources would be negligible to moderate, and would be greater than those created by the no action alternative.

The environmentally preferred alternative is not the NPS preferred alternative discussed in this EA. In considering the alternatives NPS has assessed their relative merits, and alternative B, construction of a new fire management facility, best fulfills the purpose of the proposed project and best meets the needs of the preserve, despite the fact that it is not the environmentally preferred alternative. Alternative B would provide a permanent facility with better operations, equipment, training, staging, and storage space than alternative A would, while maintaining an existing operational relationship with the TFS.

ALTERNATIVES CONSIDERED BUT DISMISSED

Construct a new facility within the city of Woodville: this alternative was dismissed because it is not logistically sound. It could not be implemented, because NPS does not own property within Woodville. The preserve does not have Congressional authorization for such a purchase, and it is not considered reasonable to anticipate that such action would be taken by Congress.

Move back into the NPS ranger facility in Woodville: This alternative was dismissed because experience has proven that the facility, a private residence converted into offices, is not adequate for NPS fire management purposes. The NPS fire management staff has been housed there in the past, but because of the need for more space, moved to its current shared facility in 2004. Thus, this alternative would not meet the purpose or fulfill the needs for the proposed project.

Construct a new facility in a neighboring community: This alternative was dismissed because it would not meet the purpose of providing a facility with adequate space while maintaining an existing mutually beneficial operational relationship with the TFS. Close proximity to TFS offices, staff, and equipment has proven to be an efficient operational system for fire management. A new facility in a different community would not provide that proximity and would introduce unacceptable logistical impediments

Construct a new facility on TFS property: This alternative was dismissed because it is not logistically sound. It could not be implemented, because NPS does not have Congressional authorization to purchase land from the TFS, and it is not considered reasonable to anticipate that such action would be taken by Congress.

Construct a new facility at the preserve visitors' center and maintenance complex near Kountze: This alternative was dismissed because it is no longer feasible. Since this alternative was first considered, a decision has been finalized to construct new administrative offices on the land that would have been available for a fire management facility.

AFFECTED ENVIRONMENT

VEGETATION

The vegetation within the study area is typical of abandoned farmland undergoing various stages of succession. Agricultural activities which occurred on the site of the proposed new facility in the past include timber cutting, and plowing for pasture or hay. The disturbance to the landscape by human activities produced a mixture of deciduous and coniferous trees and a dense brush understory. Because many years of fire suppression on lands in the Woodville area, including this parcel, have disrupted the natural fire dependent vegetative succession, the existing mix of trees, brush, and other vegetation is not representative of a the plant distribution found in a natural native upland forest community. A plant survey of the property has not been conducted, but east Texas vegetation typical in uplands in the Woodville area includes longleaf pine, loblolly pine, oaks, gums, yaupon, dogwood, sweetleaf, American holly, and wax myrtle.

In July 2006 brush, and other understory vegetation on approximately 3 acres of the 6.25 acre property were mowed. The environmental impacts of the operation were addressed in a categorical exclusion. That NEPA document is on file at the existing Fire Management Office in Woodville.

PRESERVE OPERATIONS

The 1980 Big Thicket General Management Plan (GMP) discusses the operation and management of the preserve. The 2004 Big Thicket National Preserve Fire Management Plan describes the fire management program for the preserve and explains how the program will be implemented. The following discussion is based upon information in the GMP and the fire management plan.

The general preserve management objective is to manage the preserve in a manner consistent with the purposes of preservation, enjoyment, and benefits to humankind through the safe use of its distinctive combination of man-made, natural, and cultural resources.

For management purposes the preserve is divided into 15 separate units. The fire management program serves all of those units as well as Padre Island National Seashore, Lyndon B. Johnson National Historical Park, and San Antonio Missions National Historical Park. The primary objective of the fire management program is to allow fire to function in its natural ecological role, restore ecosystem balance (stand structure and diversity) of phytic communities, and manage hazardous fuels in the urban interface through the use of prescribed fire and mechanical treatments.

A 2004 Cooperative Agreement between NPS and TFS established a cooperative working relationship between the two agencies to facilitate fire management and control in the Big Thicket area. The memorandum identified a “mutual aid zone” in which the agencies coordinate fire management activities, and it specified co-sharing of a TFS transported/dozer unit. The TFS has full responsibility for suppression actions on private or commercial lands. The NPS retains management authority on all wildland fires with preserve boundaries.

The fire management plan calls for all fire equipment to be co-located with the TFS, but because of space limitations one fire engine is stored in another community, thirty miles from the TFS facility. NPS resources may be grouped into task forces with TFS and interagency resources, to be dispatched to fires as a unit. Fire management staff are currently positioned at the TFS office in Woodville, to enhance mutual aid capabilities.

Daily operation of the preserve's fire management program is conducted by administration, planning, operations, and fire effects personnel. The administrative staff are situated in a building separate from the other three groups. Administrative staff are responsible for the budget, personnel, time, purchasing, training, oversight of policy guidance and procedures, safety, and overall program management.

Planning staff are responsible for all program project planning. This includes mechanical fuels reduction plans, prescribed burn plans, incident action plans, future projects, contractor oversight, hazard tree removal, safety, training, and implementation and oversight of the geographic information system (GIS) for the fire office.

Operations staff are responsible for the work in the field. The work includes fire fighting, vehicle maintenance, prescribed burn preparations and implementation, removal of hazardous fuels (either by hand or by mechanical means), training, weather station maintenance, safety, and upkeep for the buildings and grounds.

Fire effects staff are responsible for monitoring and recording the results of the activities of the operations staff. They are the scientific side of the program, monitoring fire management plots before and after burning, identifying and studying populations of endangered plants, and monitoring weather conditions. Their duties also include fire fighting.

NOISE

County Road 1040 (CR 1040) and U. S. Highway 69 parallel the eastern side of the property on which the proposed fire management facility would be built. A narrow triangular piece of land, no more than 300 feet at its widest point, lies between CR 1040 and Highway 69 along the north half of the eastern boundary of the property. This triangular piece of land is partially forested and contains four private residences. A private residence is also located along the western border of the property. The southern boundary of the property adjoins largely undeveloped forested land.

A corridor of forest and dense brush undergrowth covering slightly more than 3 acres extends the length of the western property boundary and across the north end of the property. That vegetated corridor provides a sound barrier between the roadways and neighboring properties. The narrow piece of partially forested land between CR 1040 and Highway 69 also provides a sound barrier. Those barriers shield the property west of the NPS property from traffic noise.

There are no studies to provide specific data for noise levels in the vicinity of the NPS property, but logging trucks and other traffic on CR 1040 are audible from the residence west of the NPS property. Properties north and east of the NPS property are not shielded from the sounds of highway traffic, and traffic noise is part of the ambient sound level there.

ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

This section describes the environmental consequences associated with the alternatives. It is organized by impact topics, which distill the issues and concerns into distinct topics for discussion and analysis. These topics focus on the presentation of environmental consequences, and allow a standardized comparison between alternatives based on the most relevant topics. NEPA requires consideration of type, context, intensity and duration of impacts, direct and indirect impacts, cumulative impacts, and measures to mitigate impacts. NPS policy also requires that “impairment” of resources be evaluated in NEPA documents.

METHODOLOGY

Overall, the NPS based these impact analyses and conclusions on the review of existing literature and Preserve studies, information provided by experts within the Preserve and other agencies, professional judgment and Preserve staff insights, and public input.

DEFINING TERMS

The following terms were used to define the nature of impacts associated with project alternatives:

Type

Impacts can be beneficial or adverse.

Context

Context is the setting within which an impact would occur, such as local, preserve-wide, or regional.

Impact Intensity

Impact intensity is defined individually for each impact topic. There may be no effect, or impacts may be negligible, minor, moderate, or major.

Duration

Duration of impact is analyzed independently for each resource because impact duration is dependent on the resource being analyzed. Depending on the resource, impacts may last as long as construction takes place, or a single year or growing season, or longer. For purposes of analysis, impact duration is described as short-term or long-term.

Direct and Indirect Impacts

Effects can be direct, indirect, or cumulative. Direct effects are caused by an action and occur at the same time and place as the action. Indirect effects are caused by the action and occur later or farther away, but are still reasonably foreseeable.

CUMULATIVE EFFECTS

The implementing regulations for NEPA require an assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time.

Cumulative impacts are considered for all alternatives and are presented at the end of each impact topic analysis.

Projects That Make Up the Cumulative Impact Scenario

To determine potential cumulative impacts, projects in the area surrounding the proposed project were identified. The area included the preserve, nearby private lands, lands administered by adjacent communities, and roadways in the vicinity of Woodville. Projects were identified in telephone conversations with the Woodville Director of Public Works and with the Woodville/Newton/Jasper Area Engineer of the Texas Department of Transportation. Potential projects identified as cumulative actions included any planning or development activity that was implemented in the recent past, that was currently being implemented, or that would be implemented in the reasonably foreseeable future.

These cumulative actions are evaluated in the cumulative impact analysis in conjunction with the impacts of each alternative to determine if they would have any additive effects on a particular resource. Because some of these cumulative actions are in the early planning stages, the evaluation of cumulative effects is qualitative and based on a general description of the project.

Past Actions

The following past actions could contribute to cumulative effects:

- 2005 widening of shoulders on approximately 12 miles of Farm Road 256.
- 2006 Super Wal-Mart store in Woodville; an existing facility was closed and a new one was built. Approximately 15 acres of land were cleared for the new facility.
- 2006 mowing of 3 acres of brush and vegetative understory on the NPS owned property near Woodville

Current and Future Actions

The following current and future actions could also contribute to cumulative effects.

- Current rehabilitation of approximately 9 miles of U.S. Highway 69 south of Woodville.

- Current rehabilitation of approximately 15 miles of U.S. Highway 287 between Woodville and Chester.
- Planned widening of approximately 15 miles of U.S. Highway 287 between Woodville and Chester.
- Planned widening of approximately 13 miles of Farm Road 1013 between Hillister and Spurger.
- Planned replacement of 3 bridges on Farm Road 1013 between Hillister and Spurger

IMPAIRMENT OF PRESERVE RESOURCES OR VALUES

In addition to determining the environmental consequences of the alternatives, the 2001 NPS *Management Policies* and DO-12 require analysis of potential effects to determine if actions would impair preserve resources.

The fundamental purpose of the National Park System, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park/preserve resources and values. National Park Service managers must always seek ways to avoid or minimize to the greatest degree practicable adverse impacts on resources and values of NPS park units. However, the laws do give NPS management discretion to allow impacts to park unit resources and values when necessary and appropriate to fulfill the purposes of a park unit, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given NPS management discretion to allow certain impacts within park units, that discretion is limited by statutory requirement that the NPS must leave park unit resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park unit resources or values, including opportunities that otherwise would be present for the enjoyment of those resources or values. An impact to any park unit resource or value may constitute impairment, however, an impact would more likely constitute impairment to the extent it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park unit;
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park unit; or
- identified as a goal in the park unit's Master Plan or General Management Plan or other relevant NPS planning documents.

Impairment may result from NPS activities in managing the park unit, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park unit. In this Environmental Consequences chapter, a determination on impairment is made in the conclusion statement of each alternative. The NPS does not analyze recreational values/visitor experience (unless impacts are resource based), socioeconomic environment, or park unit operations for impairment.

IMPACTS ON VEGETATION

The analysis of impacts on vegetation was based on the amount of potential disturbance on preserve lands from construction and from trail use after construction. The thresholds of change for the intensity of an impact are defined as follows:

Negligible	Minor	Moderate	Major
Impacts would result in a change to native vegetation, their habitats, or the natural processes sustaining them, but the change would be so slight that it would not be of any measurable or perceptible consequence.	Impacts would result in a change to native vegetation, their habitats, or the natural processes sustaining them, but the change would be small and of little consequence and would be expected to be short-term and localized. Mitigation measures, if needed to offset adverse effects, would be simple and successful.	Impacts would result in a change to native vegetation, their habitats, or the natural processes sustaining them, and the change would be measurable, long-term, and localized. Mitigation measures, if needed to offset adverse effects, could be extensive, but would likely be successful.	Impacts would result in a change to native vegetation, their habitats, or the natural processes sustaining them, and the change would be measurable and have substantial consequences on a regional scale for long periods of time or would be permanent. Extensive mitigation measures would be needed to offset any adverse effects, and their success would not be guaranteed.

Duration

Short-term: recovers in less than 1 year

Long-term: takes more than 1 year to recover

The No Action Alternative, Maintain Current Operations in the Texas Forest Service Facility (Alternative A)

Alternative A would have no adverse impacts on vegetation. The NPS fire management staff would remain stationed at the TFS facility. The forest and brush on the NPS property at the intersection of CR 1040 and Highway 69 would be undisturbed.

Cumulative Effects

Because alternative A would not adversely impact vegetation there would be no cumulative impacts.

Conclusion

Alternative A would have no adverse impacts on vegetation. There would be no cumulative effects. Because there would be no major adverse impacts to vegetation, there would be no impairment of preserve resources or values.

The Preferred Alternative, Construct a Fire Maintenance Facility (Alternative B)

Alternative B would have a long term, moderate, adverse impact on vegetation, as well as long term beneficial impacts.

Construction of a fire management facility would impact approximately 3 acres of vegetated land. Brush and other vegetation would be removed. Slightly more than 3 acres of the existing forest and dense brush would be left in place, to serve as a buffer between the NPS facility and neighboring properties. Clearing 3 acres of vegetation would result in a change to some native vegetation. The change would be measurable, long term, and localized, resulting in a moderate, long term, adverse impact on vegetation.

The area surrounding the building, storage, and parking areas would be revegetated following construction, and would incorporate the use of native plants and seeds. Use of plants native to the east Texas upland forest community would have a long term beneficial impact on vegetation.

Cumulative Effects

Other past, present, or reasonably foreseeable future actions, such as the construction of a Super Wal-Mart store, cutting of vegetation on NPS owned property in July 2006, and rehabilitation and widening of roads and highways in the area have created or have the potential for long term, moderate, adverse impacts on vegetation. These impacts, in combination with the moderate, long term, adverse impact and long term beneficial impact of the preferred alternative would result in long term moderate adverse cumulative impacts on vegetation. The preferred alternative would add a slight contribution to the overall cumulative impact.

Conclusion

Alternative B would have long term, moderate, adverse impacts and long term beneficial impacts on vegetation. Cumulative effects would be long term, moderate, and adverse. Because there would be no major adverse impacts to vegetation, there would be no impairment of preserve resources or values.

IMPACTS ON PRESERVE OPERATIONS

The analysis of impacts on preserve operations was based on the judgments of preserve staff members of the team that evaluated the impacts of each alternative. The thresholds for the impact intensities for preserve operations are as follows:

Negligible	Minor	Moderate	Major
The effects would be at low levels of detection and would not have an appreciable effect on preserve operations.	The effect would be detectable and would be of a magnitude that would not have an appreciable effect on preserve operations. If mitigation was needed to offset adverse effects, it would be simple and likely successful.	The effects would be readily apparent and would have an effect on preserve operations that would be noticeable to staff and the public. Mitigation measures would be necessary to offset adverse effects and would likely be successful	The effects would be readily apparent, would have a substantial effect on preserve operations in a manner noticeable to staff and the public, and would be markedly different from existing operations. Mitigation measures to offset adverse effects would be needed, extensive, and success could not be guaranteed.

Duration

Short-term - Effects lasting for the duration of construction

Long-term - Effects lasting longer than the duration of construction

The No Action Alternative, Maintain Current Operations in the Texas Forest Service Facility (Alternative A)

Alternative A would have a long term moderate adverse impact on preserve operations, specifically on fire management operations. The alternative would maintain the existing situation in which BITH fire management staff share an inadequate facility with TFS staff. Fire management staff would continue to perform their duties with insufficient office space and briefing and training room, a lack of running water or restroom facilities, and insufficient vehicle storage and maintenance space. A fire engine would continue to be stored in a neighboring community, 30 miles from the TFS facility. Visitors or staff with disabilities would continue to have limited access to areas within the TFS facility.

The effects of the continued operational inefficiencies would be readily apparent and would have a substantial effect on preserve fire management operations in a manner noticeable to staff and the public.

Cumulative Effects

Other past, present, or reasonably foreseeable future actions, such as repair and widening of roads and highways have created or have the potential for adverse impacts on preserve operations, particularly fire management operations. The efficiency of travel on area roads, and thus, the ability of staff to respond to fire management needs, has been or would be impacted by roadway maintenance activities. These impacts would be long term, minor, and adverse. These impacts, in combination with the moderate, long term, adverse impacts of the no action alternative, would result in long term, moderate, adverse, cumulative impacts on preserve operations. Alternative A would add a noticeable contribution to the overall cumulative effect.

Conclusion

Alternative A would have long term, moderate, adverse impacts on preserve operations. Cumulative impacts would be long term, moderate, and adverse.

The Preferred Alternative, Construct a Fire Maintenance Facility (Alternative B)

Alternative B would have short term, minor, adverse impacts, as well as long term beneficial impacts on preserve operations, specifically on fire management operations.

The process of planning for and transitioning to a new fire management facility would require time and attention from fire management staff, which would add to their workload. Those effects would end when construction was finished and the transfer of staff and equipment was complete. The effects would be detectable, but would not have an appreciable effect on fire management operations.

The increased efficiency provided by a fire management facility with adequate space and accommodations would have a long term beneficial impact on fire management operations. New energy efficient facilities would have a long term beneficial impact on maintenance and operational expenses.

Cumulative Effects

Other past, present, or reasonably foreseeable future actions, such as repair and widening of roads and highways have created or have the potential for adverse impacts on preserve operations, particularly fire management operations. The efficiency of travel on area roads, and thus, the ability of staff to respond to fire management needs, has been or would be impacted by roadway maintenance activities. These impacts would be short term, minor, and adverse. These impacts, in combination with the minor, short term adverse impacts and long term beneficial impacts of the preferred alternative would result in short term, minor, adverse and long term, beneficial, cumulative impacts on preserve operations. Alternative B would add a slight contribution to the overall cumulative effect.

Conclusion

Alternative B would have short term, minor, adverse impacts and long term beneficial impacts on preserve operations. Cumulative impacts would be short term, minor, adverse, in addition to long term beneficial.

IMPACTS ON NOISE

Noise is defined as the intrusion of unwanted sound. The noise analysis evaluated potential noise impacts by estimating the increase in projected sound levels over existing levels. The intensity of noise impacts are defined as follows:

Negligible	Minor	Moderate	Major
An action that would result in no increase or reductions in sound levels when compared to existing sound levels. The results of such action would have very little noticeable effect on ambient sound levels and would create no observed reaction from the surrounding communities.	Minor impacts would result from actions with relatively small increases in sound levels when compared to existing sound levels. The results of such actions would have little noticeable effect on ambient sound levels, but could result in sporadic complaints from the surrounding community. .	An action that would increase sound levels by a moderate amount when compared to existing sound levels. The results of such actions would have a noticeable effect on ambient sound levels and could result in widespread complaints from the surrounding community.	An action that would increase pollution levels by a substantial amount when compared to existing sound levels. The results of such actions would have a strong effect on ambient sound levels and could result in threats of community action.

Duration

Short-term: Impacts would occur only during construction.

Long-term: Impacts would continue after project construction.

The No Action Alternative, Maintain Current Operations in the Texas Forest Service Facility (Alternative A)

Alternative A would have no impact on noise. The alternative would result in no change to existing sound levels. Sounds from fire management vehicles, training exercises, and other activities at the existing facility would continue at current levels.

Cumulative Effects

Because alternative A would not change existing sound levels, there would be no cumulative effects on noise.

Conclusion

Alternative A would have no impact on noise, and there would be no associated cumulative impacts.

The Preferred Alternative, Construct a Fire Maintenance Facility (Alternative B)

Alternative B would have short term, minor, adverse impacts and long term, negligible, adverse impacts on noise.

Noise levels during land leveling and other construction activities would have a noticeable effect on ambient sound levels. The surrounding community is not heavily populated, so although the increase in noise could result in complaints, it is not likely that complaints would

be widespread. Construction noises would end with completion of the new facility, resulting in a short term, minor, adverse impact.

Operation of the new fire management facility would create a small increase in ambient sound levels. Personal and fire management vehicles would come and go from the facility during the working day, and also at night when fire management duties required it. The new facility would be located only a few hundred yards from the existing TFS facility, so it is anticipated that neighboring communities to the north and east of the site would not experience an increase in noise levels from conventional operations.

It is anticipated that noise from operational activities at the new facility would be noticeable at the residence west of the NPS property. Slightly more than 3 acres of forest and brush would remain in place along the western boundary and across the northern end of the NPS property, and would serve as a sound barrier. The new fire management building itself would also shield the residences along the western boundary from some of the highway noise. It is anticipated that the results of constructing a new fire management facility would have very little noticeable long term effect on ambient sound levels, and would create no reaction from the surrounding community. A new fire management facility would have a long term, negligible, adverse impact on noise levels for properties west and south of the NPS boundary.

Cumulative Effects

Brush, and other understory vegetation were mowed on NPS owned land near the intersection of CR 1040 and Highway 69 creating a minor, short term, adverse impact on noise levels in the area. Highway 69 in the vicinity of the existing shared TFS facility and the proposed new fire management facility is currently being rehabilitated. The work includes milling and overlaying of the pavement. Discussions with state transportation and community officials indicated no other past, present, or future projects in the area that would impact noise levels. The rehabilitation work on Highway 69 currently creates a short term, moderate, adverse impact on noise levels. Trucks hauling materials, the milling of the pavement, and other construction noises have a noticeable effect on ambient sound levels in the area, but those noises will end with completion of the work. These impacts, in combination with the short term, minor, adverse impacts and long term, negligible, adverse impacts of the preferred alternative would result in short term, moderate, adverse, cumulative impacts on noise. There would be no long term, adverse, cumulative impacts. Alternative B would add a noticeable contribution to the overall cumulative effect.

Conclusion

Alternative B would have short term, minor, adverse, and long term, negligible, adverse impacts on noise. Cumulative impacts would be short term, moderate, and adverse.

CONSULTATION AND COORDINATION

Organizations and agencies contacted for information, or that assisted in identifying important issues, developing alternatives, or analyzing impacts include:

Federal Agencies

United States Department of the Interior – Fish and Wildlife Service
United States Department of the Interior – National Park Service

Texas State Agencies:

Texas Parks and Wildlife
Texas Historical Commission
Texas Department of Transportation

Local Agencies/Municipalities:

City of Woodville

LIST OF PREPARERS

Preparers

David Kreger	Project Manager, National Park Service, Denver Service Center
Patrick Walsh	Cultural Resource Specialist, National Park Service, Denver Service Center
Steven Hoffman	Natural Resource Specialist, National Park Service, Denver Service Center

Contributors

Todd Brindle	Superintendent, National Park Service, Big Thicket National Preserve
Fulton Jeansonne	Fire Management, National Park Service, Big Thicket National Preserve
Cheryl Eckhardt	NEPA/106 Specialist, National Park Service, Intermountain Region
Rick Cronenberger	Historical Architect, National Park Service, Intermountain Region

BIBLIOGRAPHY

Authors

Watson, G. 1982. "Vegetational Survey of Big Thicket national Preserve". Publisher unknown.

National Park Service, U. S. Department of the Interior

- 1980 General Management Plan, Big Thicket National Preserve/Texas
- 1982 Vegetational Survey of Big Thicket National Preserve
- 1983 Resources Management Plan and Environmental Assessment, Big Thicket National Preserve/Texas
- 2001 Director's Order #12: Conservation Planning, Environmental Impact Analysis, and Decision-Making
- 2001 Management Policies
- 2004 Fire Management Plan, Big Thicket National Preserve/Texas
- 2006 Archeological Monitoring Plan and Report, Big Thicket Fire Management Office, Land Transfer Project

Personal Communications

Comte, C. Director of Public Works, City of Woodville, Texas. Personal communication via telephone, July 26, 2006.

Walters, M. Tyler County Commissioners, Woodville, Texas. Personal communication via fax, July 26, 2006.

Seal, R. Area Engineer, Woodville/Newton/Jasper, Texas Department of Transportation. Personal communication via telephone, July 27, 2006.

Stewart, P. District Conservationist, Natural Resources Conservation Service, U. S. Department of Agriculture, Woodville, Texas. Personal communication via telephone, July 24, 2006.

Worldwide Web

- 2006 Google Earth: Image © 2006 MDA EarthSat
- 2006 <http://www.tceq.state.tx.us>
- 2006 <http://iaspub.epa.gov/airsdata>
- 2006 <http://www.uwdsp.edu/cnr/landcenter/tracker/fall2004/noiseimpacts.html>

APPENDIX A

Consultation Responses; U. S. Fish and Wildlife Service and Texas Parks and Wildlife Department



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Division of Ecological Services
17629 El Camino Real #211
Houston, Texas 77058-3051
281/286-8282 / (FAX) 281/488-5882



August 22, 2006

Steven Hoffman
National Park Service
Denver Service Center
12795 W. Alameda Parkway
Denver, Colorado 80225-0287

Dear Mr. Hoffman:

This responds to your letter dated July 11, 2006 requesting information on threatened or endangered species that may occur near the National Park Service's proposed fire facility, located approximately 3 miles south of Woodville at the intersection of County Road 1040 and US Highway 69, Tyler County, Texas.

A review of U.S. Fish and Wildlife Service files and your project map indicates that historic populations of the endangered plant Texas trailing phlox, (*Phlox nivalis* ssp. *Texensis*) are known to occur just to the south of the proposed project site. However, no information specific to your project site was located. If suitable habitat occurs within the project impact area, a qualified individual should conduct a survey to determine the presence or absence of Texas trailing phlox. The best time to conduct the survey is March through April. The plants are flowering at this time and thus are more conspicuous. Texas trailing phlox grows on sandy soils in open pine woodlands, and is an evergreen perennial herb or subshrub. Plants often form clumps but not mats; the stems tend to spread along the ground, with only the terminal one to six inches of the stem erect. Leaves are needle-like and densely packed on the stem, and flowers have five petals and are pink to magenta in color. Additional information can be obtained from the recovery plan, available on-line at http://ecos.fws.gov/docs/recovery_plans/1995/950328a.pdf.

Please note that according to Section 7(a)(2) of the Endangered Species Act and the implementing regulations, it is the responsibility of each federal agency to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of any federally listed species. Therefore, you should use this and other current species information to evaluate the effects of your project on listed species. The Service's Consultation Handbook is available online to assist you with further information on definitions, process, and fulfilling Endangered Species Act requirements for your projects at <http://endangered.fws.gov/consultations/s7hndbk/s7hndbk.htm>.

If you have any questions, or if we can be of further assistance, please contact Catherine Yeargan at 281/286-8282.

Sincerely,

Nancy D. Riley
Acting Field Supervisor, Clear Lake ES Field Office

TAKE PRIDE
IN AMERICA 

Response from Texas Parks and Wildlife Department

"Stephanie Shelton" Stephanie.Shelton@tpwd.state.tx.us
07/13/2006 02:08 PM EST

To: Steven_Hoffman@nps.gov
cc:
Subject: RE: BITH PMIS 77562, National Park Service Request
for Resources Review

Good Afternoon Steven,

Please let me start off this email by stressing that absence of information in an area does not mean absence of occurrence. Given the small proportion of public versus private land in Texas, the TPWD Natural Diversity Database (NDD) (formerly the Biological and Conservation Data System) does not include a representative inventory of rare resources in the state. Although it is based on the best data available to TPWD regarding rare species, the data from the NDD do not provide a definitive statement as to the presence, absence, or condition of special species, natural communities, or other significant features within your project area. These data cannot substitute for an on-site evaluation by your qualified biologists.

Attached you will find a .zip file that contains the response to your information request. Contained in the .zip file is a shapefile of the T&E and Rare species elemental occurrences, information that the NDD database has access to at this time, within and touching a 3 mile buffer for your project location along with a companion EO report. Included is an EO list of the surrounding quads, out to approximately 10 miles from the boundary of your requested location so that you are aware of other species near your project area. Lastly, the .zip file also contains documents that will guide you in appropriate use of the data, definition and restrictions of the data, and data interpretation. Please pay special attention to the document titled "Shapefile data interpretation". The data as displayed in the digitized maps are different than the way the data was displayed on our paper maps. To round out your review, please use the pertinent Annotated County Lists for Rare Species on the following webpage: http://www.tpwd.state.tx.us/landwater/land/maps/gis/ris/endangered_species.phtml

For more up-to-date information on the bald eagle and colonial waterbirds you will need to contact Brent Ortego at brent.ortego@tpwd.state.tx.us or (361) 576-0022

There is a buffered area of *Phlox nivalis* ssp. which crosses into the

actual project site. If you need more information on this species or possibly further data please contact Jason Singhurst:
Jason.Singhurst@tpwd.state.tx.us or (512) 912-7026

These data are not all inclusive and cannot be used as presence/absence data. They represent species that could potentially be in your project area. This information cannot be substituted for on-the-ground surveys. For the USFWS species lists please visit:
http://ecos.fws.gov/tess_public/servlet/gov.doi.tess_public.servlets.EntryPage

Stephanie

Stephanie Shelton
Natural Diversity Database Technician
Texas Parks and Wildlife Department
3000 IH-35, Suite 100
Austin, TX 78704
office: 512.912.7053; fax: 512.912.7058
stephanie.shelton@tpwd.state.tx.us

There is a one week turn-around due to the number of requests that we receive. Thank you for your patience.

-----Original Message-----

From: Steven_Hoffman@nps.gov [mailto:Steven_Hoffman@nps.gov]
Sent: Tuesday, July 11, 2006 10:30 AM
To: Stephanie Shelton; Celeste Brancel; Kathy Boydston
Cc: PIFS_Mailbox@nps.gov; David_Kreger@nps.gov; Fulton_Jeansonne@nps.gov
Subject: BITH PMIS 77562, National Park Service Request for Resources Review

As per my conversations with Stephanie Shelton and with Celeste Brancel on July 10 I have attached two illustrations depicting the proposed location for a fire management facility for the Big Thicket National Preserve (BITH).

The proposed facility would be located approximately 3 miles south of Woodville, in Tyler County, Texas. It would be situated on a 6.25 acre parcel of land at the intersection of County Road 1040 and U.S. Highway 69. The property is owned by the National Park Service (NPS).

As proposed, the facility would consist of approximately 6,816 square feet of structure with approximately 45,000 to 60,000 square feet of developed site amenities, such as public and staff parking, firefighting vehicle parking, and outdoor work areas.

It is anticipated that approximately 3 acres would be cleared of brush and other forest understory, with a vegetated buffer of slightly greater than 3 acres left in place

along the western property boundary and at the northern end of the property. Landscaping would utilize native Texas plants.

It is anticipated that a leach field and septic tank would be installed for sewage.

According to local memory, the 6.25 acre parcel was at one time a pasture, but has regrown to forest and brush. Soils are sandy. Depth to water table is unknown. There is no human development on the property at this time. The property is atop a hill and contains no wetlands, watercourses, or floodplains.

February 2007 is the anticipated date of construction. Best management practices would be followed to avoid erosion or runoff during construction activities.

A residential neighborhood adjoins the property to the west.

As the natural resource specialist assigned to this project I am requesting that you review the proposed project area to determine whether any Texas species listed as endangered or threatened, or any other Texas species of concern may be present or affected by the proposed project. Please advise the NPS of that determination and provide a list of any such species. Please advise of any concerns and/or recommendations regarding impacts to such species.

The NPS is preparing an environmental assessment (EA) to analyze the impacts of the proposed fire management facility. The planned public review period for the EA is August 25 through September 23, 2006. Please advise me whether the Texas Parks and Wildlife Department would want to be provided with a public review draft EA. If so, please provide an address and a list of names of staff who would want a copy of the EA.

Thank you for taking the time to consider my request. We appreciate your continuing assistance with National Park Service projects.

(See attached file: Hillister quad BITH.pdf) (See attached file: Location, proposed BITH fire facility.pdf)

steven_hoffman@nps.gov
office: 303-969-2113
fax : 303-969-2736
National Park Service

D-109



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

