



**BIG THICKET NATIONAL
PRESERVE**

FIRE MANAGEMENT PLAN
2017



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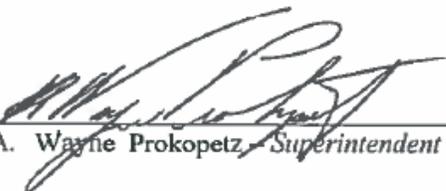
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1.0 INTRODUCTION, LAND MANAGEMENT PLANNING, and COMMUNICATION

The Big Thicket National Preserve Fire Management Plan is a strategic plan that defines a program of work to manage wildland fire (includes planned and unplanned ignitions) and non-fire fuel treatments, and is based on direction contained in existing park unit planning documents. This Big Thicket National Preserve Fire Management Plan provides for firefighter and public safety, and includes strategies for managing wildland fire. The Big Thicket National Preserve Fire Management Plan addresses values to be protected and is consistent with Big Thicket National Preserve resource management objectives and environmental laws and regulations such as the National Environmental Policy Act, the National and State Historic Preservation Acts, the Clean Air Act, etc. This Fire Management Plan is being prepared in compliance with NPS Fire Management Policy and Directors Order #18.

“Park units with vegetation capable of burning will prepare a fire management plan that is consistent with federal law and departmental fire management policies, and that includes addressing the need for adequate funding and staffing to support the planned fire management program.” (Section 4.5, NPS Management Policies, 2006)

“Each park unit with burnable vegetation must have an approved Fire Management Plan that will address the need for adequate funding and staffing to support the fire management program.” (Directors Order #18, Wildland Fire Management, 2008)

Big Thicket National Preserve (BITH) contains a unique convergence of multiple habitats and an incredibly diverse biological community (Cooper et al. 2004). BITH was established and signed into public law by President Gerald Ford on 11 October in 1974 (PL 93-439).

“Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in order to assure the preservation, conservation, and protection of the natural, scenic, and recreational values of a significant portion of the Big Thicket area in the State of Texas and to provide for the enhancement and public enjoyment thereof, the Big Thicket National Preserve is hereby established.”

At the time of establishment, BITH was the first national preserve and consisted of 84,550 acres. In 1993, legislative action incorporated an additional 13,420 acres of creek corridors in BITH. Between 2004 and 2015, additional land acquisitions expanded the total land area in BITH to just over 112,000 acres. BITH has been designated as an International Biosphere Reserve since 1981 (UNESCO 2000) and in 2001 the American Bird Conservancy (ABC) designated BITH as a Globally Important Bird Area (IBA). There are 15 management units included in the preserve; some are connected by water

corridor units, while others are completely detached. Currently the preserve is 113,122 acres with 611 miles of boundary, these numbers change due to acquisitions and donations of land to the preserve.

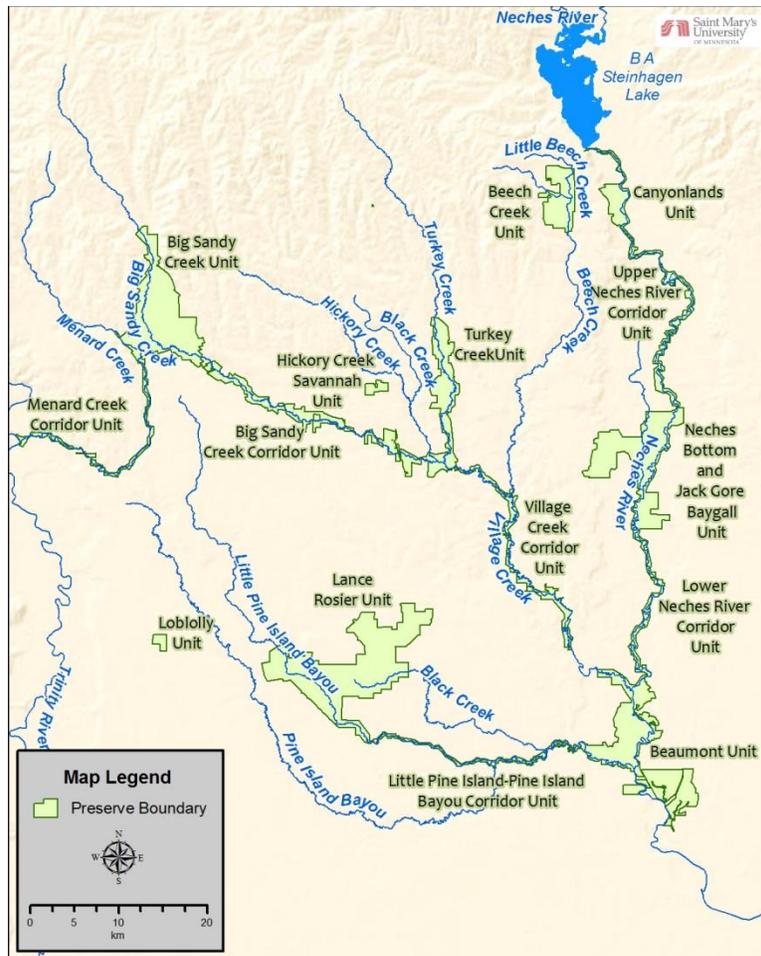


Figure 1. – Big Thicket National Preserve Overview Map

1.1 Program Organization

The Fire Management program is one of six divisions of Big Thicket National Preserve and reports directly to the Superintendent. It is also the lead park of the *Southeast Texas Fire Group* that is comprised of Big Thicket National Preserve, Lyndon B. Johnson National Historical Park, Padre Island National Seashore, Palo Alto Battlefield National Historical Park, and San Antonio Missions National Historical Park.

Big Thicket Fire Program is divided into three functional groups: Administrative, Planning, and Operations.

<i>Functional Group</i>	<i>Functional Lead</i>	<i>Functional Responsibility</i>
Administrative	Fire Program Management Assistant	Budget, Time, Fire Business, Expenditure Tracking
Planning	Fuels Specialist	Project Planning, Project Funding Requests, Project/ Wildfire Reporting, Fire Effects/Ecology Program
Operations	Wildland Fire Operations Specialist	Project Implementation, Wildfire Preparedness, Wildfire Suppression, Facility, Radio, Equipment Management

1.2 Environmental Compliance

The Big Thicket National Preserve Fire Management Plan Environmental Assessment (EA) was prepared and submitted to the public for comment in December 2012. The EA was prepared in compliance with the National Environmental Policy Act (NEPA) of 1969, regulations of the Council on Environmental Quality (CEQ) (40 CFR § 1508.9), and NPS Director’s Order (DO)-12. The Finding of No Significant Impact (FONSI) was prepared and signed by the NPS Intermountain Regional Director on June, 30, 2015.

The letter of concurrence from the U.S. Fish and Wildlife Service on the determination that the proposed actions were not likely to adversely affect any federally listed threatened or endangered species was signed June 25, 2013, pursuant to Section 7 of the Endangered Species Act.

The letter of concurrence from the Texas State Preservation Officer on the determination that the proposed actions would not adversely affect sites listed on the National Register of Historic Places or those eligible for inclusion on the National register was signed September 29, 2014, pursuant Section 106 of the National Historic Preservation Act.

The FONSI, letter of concurrence from the US Fish and Wildlife Service, and the letter of concurrence from the Texas State Preservation Officer can be found in Appendix C.

1.3 Park Unit/Resource Management Planning

Big Thicket National Preserve General Management Plan (GMP)2014 – The GMP and Record of Decision was signed by the NPS Intermountain regional Director on November 24, 2014. Fire management activities are discussed in multiple sections of the document and described in the preferred alternative of the Environmental Impact Statement:

“Fire Management – *The preserve staff would continue to use a combination of prescribed fire and mechanical and chemical treatments to manage vegetation in fire-adapted vegetation communities in order to allow fire to function in its natural ecological role, restore ecosystem balance (e.g., stand structure and diversity), and manage hazardous fuels in the urban interface. Fire management actions in the preserve would continue to be consistent with overall resource management objectives, public health, firefighter and public safety, environmental laws and regulations, and be based upon best available science. Fire management activities would include hazardous fuel reduction and restoration, especially of longleaf pine and wetland pine savanna communities. Wildfires would be managed safely and effectively using tactics that minimize impacts to resources. The preserve staff would continue to work cooperatively with the Texas Forest Service, counties, and other partners on mutual support for response to wildfires,*

prescribed fire management, fire prevention and preparedness, and restoration as appropriate.”

All fire management activities of this plan are consistent with the guidance of the GMP and the EIS.

Big Thicket National Preserve Foundation Document 2014 – This document provides basic guidance for planning and management decisions for the preserve. It was released in May 2014 and fire management is discussed as a primary tool in the fundamental resources and values (FRV) and dynamic components of the Foundation Document.

Big Thicket National Preserve Longleaf Pine Restoration Plan – This plan is being developed in association with the fire management plan. This ecological restoration plan focuses on restoring longleaf pine (*Pinus palustris*) to areas of the preserve where this fire-dependent ecosystem has been replaced by mixture of pine and hardwood with a thick brush understory. This stand replacement was due to logging, fire suppression, and other land uses in the Big Thicket area during much of the 20th century. Restoration of open stands of longleaf pine with dense herbaceous understory will: 1) increase the resilience of fire dependent ecosystems to future natural disturbances such as wildfire, drought, insect outbreaks, wind events, and climate change; 2) restore fire-adapted ecosystems and associated wildlife; and 3) reduce a significant fuel hazard in mid-story brush density, making prescribed burning safer for employees and nearby residents and wildfire control more successful. The longleaf pine restoration plan will utilize fire management activities described in this plan to accomplish the restoration and fire management goals described in both documents. The longleaf pine restoration plan can be found in Appendix K.

1.4 Collaborative Planning

Big Thicket National Preserve consists of 15 management units; some are connected by water corridor units, while others are completely detached. Preserve lands are located in seven counties with 113,122 acres and 611 miles of boundary.

Due to the dispersed nature of the preserve, Big Thicket Fire Management is engaged in intergovernmental fire management planning with local, state, and other federal agencies. This intergovernmental collaborative planning includes wildfire suppression, prevention, preparedness, prescribed fire, and management of all-risk incidents. This planning also extends to The Nature Conservancy, Texas Chapter, with adjacent land ownership and similar mission. These collaborative planning efforts include: 1) Community Wildfire Protections Plans 2) Mutual Aid Agreements 3) Multi-Agency Coordination Group membership and 4) Interagency Coordination Center and dispatch center participation.

The preserve fire management plan meets the goals established by the National Cohesive Strategy (2014):

1. *Restoring and maintaining resilient landscapes*
2. *Creating fire-adapted communities*
3. *Responding to Wildfires*

The goals of the Cohesive Strategy are incorporated into the associated sections of the plan. The cooperative and interagency agreements can be found in Appendix H.

1.5 Communication and Education

Informing the public about the fire management program is an ongoing process. Formal interpretive programs, both on-site and off-site, often address the ecological relationship of fire to the preservation and restoration of natural biological communities. These programs stress the importance of fire in maintaining biological diversity, and also include information on the detrimental effects of catastrophic wildland fires to resources and property. Interpretive signs addressing the preserve's fire management program are often placed at trailheads following a prescribed fire in the area. Information about the Preserves fire management program, fire's role in the ecosystem, and wildfire protection can be found in the discovery station of the visitor center and the preserve's website.

Fire danger signs are located at both the visitor center and the fire management facility to inform the public and visitors of the current fire danger. Information about upcoming and ongoing prescribed burns, campfire restrictions, and area closures is posted on the fire information board in the visitor center as well as on the preserve website and social media pages.

The preserve's public information officer (PIO) is responsible for press releases during large wildfires or other events impacting the preserve. Press releases should include situational updates, closures, and impacts to the public.

2.0 WILDLAND FIRE PROGRAM MANAGEMENT GOALS, OBJECTIVES, and MANAGEMENT ACTIONS

Big Thicket National Preserve fire management programs purpose is to protect the health and safety of the public and employees; minimize potential impacts associated with fire to properties adjacent to the park and to park facilities and infrastructure; and protect, preserve, and enhance natural and cultural resources. The preservation of natural and cultural resources within the preserve is fundamental to its continued use and enjoyment by park visitors as a national preserve with natural resource values preserved as part of the National Park System.

2.1 Goals

The goals of the fire management program are the foundation and expectation for all fire management activities conducted in the preserve. The fire management program goals are:

- 1. Conduct all fire management activities in a manner that provides for the safety of the public, firefighters, and preserve staff.***
- 2. Protect the public and preserve staff within and adjacent to the preserve.***
- 3. Protect property, improvements, natural, and cultural resources from adverse effects of fire and fire management activities within and adjacent to the preserve.***

4. *Maintain fire as a natural part of the ecosystem.*
5. *Restore fire dependent ecosystems.*

2.2 Objectives

The programmatic objectives for fire management are:

1. *Ensure firefighters sustain no lost time injuries while performing wildland fire activities.*
2. *Maintain existing fuel breaks according to the multi-year fuels treatment plan to assist in the suppression of unplanned wildfires.*
3. *Maintain existing prescribed burn units according to the multi-year fuels treatment plan to assist in the suppression of unplanned wildfires and to assist and maintain fire dependent ecosystems.*
4. *Add two prescribed burn units from the non-active list of the multi-year treatment plan to the active list to assist in the suppression of unplanned wildfires, restoration and maintenance of fire dependent ecosystems by 2020.*
5. *Begin implementation of the Longleaf Pine Restoration Plan by adding three treatment units identified in the plan to the active treatment rotation of the multi-year treatment plan for ecological restoration of fire dependent ecosystems by 2020.*
6. *Use fuel manipulation and ecological restoration activities including prescribed burning, mechanical, herbicide, and biomass removal for ecological restoration and hazardous fuel reduction.*
7. *Provide effective rehabilitation of wildfire areas (Burned Area Rehabilitation and Burned Area Restoration).*
8. *Continue interagency cooperation and coordination, and public outreach about Preserve fire management and restoration activities.*
9. *Continue active monitoring of fire program field actions, support sound resource management science, and utilize adaptive management to improve the program.*

2.3 Approved Wildland Fire Management Actions

A range of wildland fire management actions are approved for use in Big Thicket National Preserve.

2.3.1 Management of Wildfires

There are four approved strategies available to incident commanders and fire suppression staff that can be used individually or in combination on the preserve:

- *Full Suppression* – Both direct and indirect tactics are approved based on fire location, fuels, fire behavior, resistance to control, access, and availability of natural and man-made barriers.
- *Confine/Contain* – Confine/contain strategy is approved for use when firefighter safety, cost, and protection of natural and cultural resources concerns are identified by the incident commander.
- *Monitor* – A monitoring strategy is approved for use when firefighter safety,

cost, and protection of natural and cultural resources concerns are identified by the incident commander. Monitoring can be on-site, from a distance, from the air, and at a frequency determined by the incident commander.

2.3.2 Management of Fuel Treatments

Fuels management is a major component of meeting the goals defined for the fire management program of Big Thicket National Preserve. There are four fuel treatment types approved for use individually or in combination to meet objectives on the preserve:

- *Thinning* – Thinning or removing of brush, understory, or overstory is an approved treatment type and can be done either manually or mechanically.
- *Mastication* – Mastication of brush or understory is an approved treatment type and is done mechanically with a variety of equipment.
- *Prescribed Burning* – Prescribed burning (planned ignitions) both broadcast and pile is an approved treatment type and either hand or aerial ignition is approved for use.
- *Herbicide* – Use of herbicides individually or in combination with other treatments is approved for use.

Fuel treatments are primarily focused in areas of the preserve that have or had fire dependent longleaf pine ecosystems. These areas generally have heavier fuel loadings, drier, and have higher frequency of unplanned wildfires. There are a few fuel treatment units in other vegetation types but only in areas with a high frequency of unplanned wildfires and significant values at risk either on or adjacent to the preserve. Fuels treatments are also used to assist in the restoration of longleaf pine ecosystems. Restored longleaf pine ecosystems typically support ground fires with isolated torching that is less resistant to control and accomplish fuel reduction objectives.

2.3.3 Defensible Space

The NPS has adopted the International Code Council's (ICC's) *International Urban-Wildland Interface Code* (2006). Contained in the ICC's code (sections 603 and 604) are descriptions of defensible space and maintenance requirements for urban wildland interface areas. Maintenance of the defensible space includes modifying or removing non-fire-resistant vegetation and keeping needles, leaves, and other dead vegetative material regularly removed from around structures and roofs.

The code stipulates that the minimum requirement for defensible space around structures is 30 feet. Tree crowns should be pruned and maintained to a minimum of 10 feet horizontal clearance from structures and overhead electrical facilities. Tree limbs should be pruned to maintain a 6-foot clearance above the ground. High fire-hazard areas, flammable construction materials, topography, and fuels may require up to, and possibly more than, 100 feet of additional clearance space.

A wildfire risk assessment was completed for all preserve facilities in 2012. The NPS facility wildfire risk assessment identified access, water sources, potential threats from wildfire, and necessary fuels mitigations. Mechanical fuels treatments were conducted around identified facilities in 2014 and a plan for adding herbicide

treatments was added in 2016. The parkwide facility defensible space project was added to the multi-year fuels treatment plan and is currently in the treatment rotation.

All NPS design and construction projects must consider wildland fire prevention, protection capability, and mitigation measures to reduce the potential for adverse impacts of wildland fire. Facility design and visitor management planning should include an analysis of fire regimes. Avoid clustering facilities with limited access. As in floodplains, avoid clustering visitors and facilities in areas where large scale ecological processes could be impaired because of fragmentation. They must also take into account preconstruction vegetation and fuels management and use of fire resistant design and materials.

3.0 WILDLAND FIRE OPERATIONAL GUIDANCE

3.1 Response to Wildfire

Wildfires occur year round in the Big Thicket region due to the southerly latitude and proximity to the Gulf of Mexico. Decisions to implement any wildland fire management strategies should take in consideration:

- 1) Big Thicket fire management capabilities
- 2) Local, state, and national resource availability
- 3) Current and predicted conditions affecting fire behavior

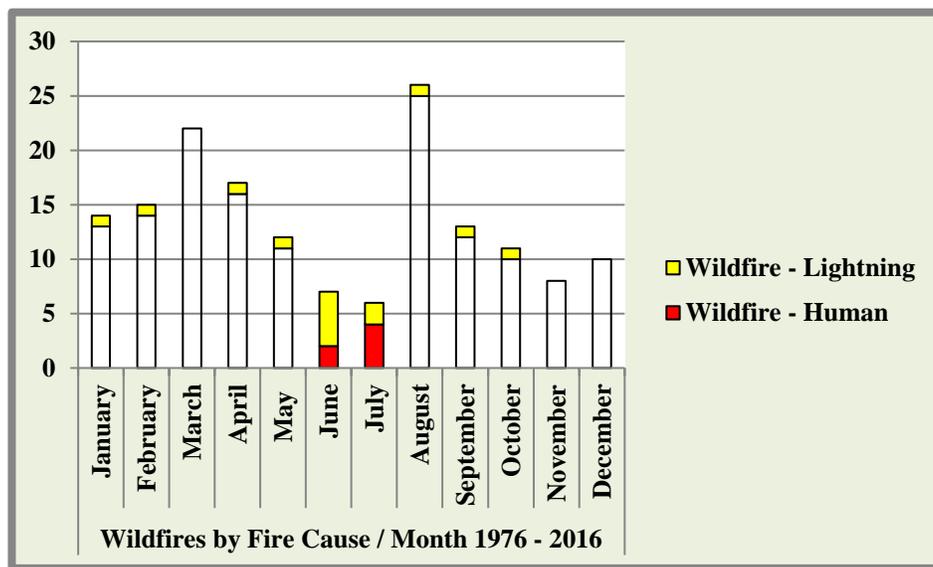


Figure 2. Wildfire by Cause / Month 1976 - 2016

3.1.1 Wildfire Response Planning

- **Weather**

The southerly latitude and proximity to the Gulf of Mexico creates a warm,

humid climate and a long growing season for vegetation. The absence of significant long duration freeze events in most years is important to many plants. Average annual temperature is 67.1°F with an average monthly minimum of 51.1°F in January, and an average maximum of 81.7°F in August. Summers are hot and humid with typical daytime temperatures between 85 and 95 degrees Fahrenheit. Mid-50s are normal for winter.

Average annual precipitation ranges between 46 to 52 inches from north to south over the preserve region, and is reasonably well distributed through the year. March and July are typically the driest months. Winter precipitation is generally associated with frontal activities and uniformly blankets the area. Summer precipitation is generated by the Gulf of Mexico and more heavily impacts the southern units of the preserve. That precipitation demonstrates frequent, heavy rains of short duration.

Thunderstorm frequency is high and occurs on an average of 63–70 days annually. Tornadoes may occur in the region during these periods. Hurricanes are not unusual in the late summer/fall; several major events have occurred since 2000. Saturated soils found during thunderstorm and hurricane events can intensify tree blowdown from strong winds.

Critical fire weather conditions can occur at any time of year but primarily during the winter and summer months. The Lake Charles, LA NOAA offices utilize the following decision tree for red flag criteria:

Red Flag Decision Tree		Fuel Dryness		
		Extremely Dry	Critically Dry or Dry	Normal or Moist
Wind Conditions	Wind 15-20 MPH ASOS 12-16 MPH RAWS	RH < 20%	RH < 17%	None
	Wind 20-25 MPH ASOS 16-20 MPH RAWS	RH < 30%	RH < 20%	None
	Wind >25 MPH ASOS >20 MPH RAWS	RH < 35%	RH < 25%	RH < 20%

Figure 3. NOAA-LCH Red Flag Decision Tree

- **Expected Fire Behavior**

Big Thicket National Preserve has a complex mosaic of vegetation types that are variable in composition and structure. Overall, fire behavior can be characterized by vegetation type:

Upland Pine & Upper-slope Pine-Oak Forest

These areas are well drained and drier than other vegetation types. They supported fire dependent longleaf pine ecosystems and had a more frequent natural fire return interval (3 year average).

Condition Class 3 – These areas have a dense brush understory and are often needle draped. Fire intensity and rate of spread is highest in this fuel type and the effect of wind speed on rate of spread is critical. During low fire indices flame lengths are typically 6 to 8 feet and during higher indices flame lengths can exceed 20 feet. Headfire flame lengths of 40 to 70 feet can occur but are short in duration and associated with critical fire weather. In stands with a mature canopy most of the wind is prevented from reaching eye level; however, when dense brush pockets provide sufficient ladder fuels into the canopy exceptional fire behavior can occur. While the lack of continuous ladder fuels typically prevents a sustained crownfire, torching and spot fire potential dramatically increases.

Condition Class 2 – These areas have moderately dense brush understory between two and six feet high below a pine or mixed pine-hardwood canopy. Brush density and height is largely dependent upon fire history. Fire behavior in this fuel type is significantly lower than condition class 3. Headfire flame lengths are generally three to four feet but can reach 15 to 20 feet during high fire indices depending on brush density and height. Torching is possible but only during drought conditions.

Condition Class 1 – These areas have a predominately longleaf pine overstory with a dense forb/grass understory and pine needle fuel bed. Brush is widely scattered and short due to a frequent fire return interval. Due to the open nature of the stands there is less sheltering from the wind. Higher eye level winds and a dense flashy fuel bed produce higher rates of spread than other fuel types. Headfire flame lengths are generally two to four feet but can reach 8 to 12 feet with high winds and cured forbs and grasses.

Slope Forests

These forests have a mixed pine-hardwood canopy with a well-developed hardwood and brush understory. The fuel bed is leaf and needle litter and fire spread is largely dependent on soil moisture availability. The heavy canopy and understory prevent winds from reaching eye level except in high wind conditions. Flame lengths are generally less than two feet and rates of spread are minimal except during drought or critical weather conditions. Fire spread is largely dependent upon fuel continuity. Flank fires and backing fires exhibit very low intensity and slow rate of spread. Rate of spread is normally less than one chain/hour and flame lengths generally do not exceed one foot. Flame lengths increase when brush pockets are encountered.

Floodplain Hardwood Forests

The floodplain vegetation type is dominated by hardwoods and the fuel bed is normally a thin hardwood leaf mat. Intermittent drainages and permanent stream channels often dissect this fuel type. Fuel moistures are relatively high throughout the year, allowing creeping ground fires that consume only the top layer of forest duff. Flame lengths seldom exceed six inches. Fires

often naturally stop near slight depressions and drainages. The low flammability of this vegetation significantly reduces the potential of wildland fires. This fuel type is typically used as a natural firebreak unless drought or critical weather conditions are present.

General Fire Behavior Considerations

Wildfires occur year round in the Big Thicket region and seasonality has different influences of fire behavior.

Winter – Live fuel moistures are at their lowest and forbs and grasses are cured. High winds and low humidity follow cold front passages. Wildfire activity is associated with these frontal passages.

Spring – Live fuel moistures are at their highest and forbs and grasses green up. Wildfire activity is limited due to the high fuel moisture.

Summer – Long days and high temperatures dry fuels quickly. Live fuel moisture is dependent on rain frequency. Winds are generally light but downdrafts from afternoon thunderstorms produce strong erratic winds.

▪ **Minimum Impact Strategy and Tactics**

Firefighters will utilize Minimum Impact Suppression Tactics (MIST) to reduce impacts of fire response operations whenever possible on the preserve. There is no designated wilderness or proposed wilderness areas within the preserve but fire managers should select tactics commensurate with the fire's existing or potential behavior while causing the least possible impact on the resource being protected. While MIST emphasizes managing wildfire with the least impact to the land, actual fire conditions and professional judgment will dictate the actions taken. Consider what is necessary to halt fire spread and containment within the fire line or designated perimeter boundary while safely managing the incident.

Use of MIST **must not** compromise firefighter safety or the effectiveness of management efforts. Safety zones and escape routes must continue to be a factor in determining fire line location.

The choice of approved strategies for the management of wildfires (Section 2.3.1 – Management of Wildfires) should take into consideration the minimization of impacts on natural resources. The equipment and/or aviation assets on the preserve should minimize potential effects of fire management activities on resources, staff, and the public (see mitigation measures below).

Mitigating Measures:

General

- Natural, manmade features or vegetation change barriers will be utilized whenever possible to minimize the need for fireline construction. Indirect/confine type strategies will be the preferred strategy for most wildfires.

- Constructed firelines would be built to the minimum width needed for safe control operations.
- Vegetation will be removed, cut or manipulated along firelines to the minimum necessary for fire control or to protect human, natural or cultural values.
- Utilize water, pumps, and hose lines when available for wetlines or to back-up smaller firelines to minimize the amount of fireline construction.
- Stream or water crossings should be avoided when possible by firelines or equipment. When necessary they should be carefully constructed to minimize disturbance and erosion to the watercourse. Crossings should promptly be restored and rehabilitated in consultation with resource specialists.
- Utilize less sensitive travel routes for firefighters, vehicles, and equipment whenever possible.
- Reasonable procedures will be developed to prevent spills of foam and fire retardant chemicals. These actions will be taken away from streams and watercourses.
- Mop-up on fires will be done utilizing methods to minimize soil disturbance.
- Water diversion devices would be utilized on firelines with the potential for erosion to minimize runoff and erosion issues.
- Avoid extensive falling and bucking of trees.
- Avoid building firelines and ground disturbance in cultural site areas.
- Flush cut stumps in cultural sites rather than remove. Avoid ground disturbance as much as possible in and around cultural sites.
- During wildfires, fire managers will regularly update the preserve resource specialist with cultural responsibilities on initial and extended attack response strategies, ground disturbance, and extent of fire area to facilitate focus on cultural resources.
- Preserve cultural and historic site base maps will be immediately available to incident commanders to allow them to avoid impacts to cultural sites. The maps are available at: <https://insideimrgis.nps.gov/html/?viewer=BITH#>.
- Special flagging will be utilized to identify archeological and historic sites; flagging must be monitored as fire threat passes and may need early removal to prevent undue attention to cultural sites.
- As burned areas are opened to visitors, signs will be posted informing the public of potential hazards in the burned areas.

Equipment

- Equipment operators will be trained to minimize soil and vegetation disturbance, compaction, and displacement.
- Dozer and/or dozer plow use will be avoided when possible. Their use may be considered when necessary to protect people, structures, or critical resources. When possible, their use would be approved by the Superintendent and coordinated with a Resource Advisor, but consultation may not be possible in emergency situations.
- Equipment use will avoid operation on erosive soils or saturated soil conditions.
- When possible, mowing or mastication may be utilized for firelines. When scraping is needed, it will be to the minimum depth necessary for safe fire control operations.
- Large mechanical equipment with major or excessive fluid leaks will not be utilized. Refueling or filling or mixing of gas and other fluids will be avoided in

the field when possible; when necessary appropriate precautions will be taken to prevent spills.

- Reasonable procedures will be developed to prevent spills of foam and fire retardant chemicals. These actions will be taken away from streams and watercourses
- Existing roads will be utilized by vehicles and equipment as much as possible.
- Chemical retardant, foam, and gasoline refueling will not be utilized within 300 feet of standing water or streams.
- Whenever possible, incoming vehicles, engines, and equipment from outside the immediate area will be cleaned (including the undercarriage) upon arrival to remove invasive weed seeds.
- Spot monitoring or accompaniment of heavy equipment use during wildfires will occur by Resource Advisors (READ's) to ensure avoidance of damage to archeological or cultural sites.

Aviation

- Helicopter bucket dipping will only be allowed from water sources approved by the Incident Commander. The approval would be site specific, based on interagency helicopter safety standards, and the best available knowledge of preserve resources in an emergency. If possible, approval would be in consultation with a Resource Advisor or appropriate Park Managers, as available.
- Chemical retardant, foam, and gasoline refueling will not be utilized within 300 feet of standing water or streams.
- Resource managers will work with fire staff to prevent cross-contamination from aircraft water drops that may utilize natural water sources with species foreign to the Preserve.
- Avoid low level aircraft flights over the Alabama-Coushatta Indian Reservation.

3.1.2 Wildfire Response Objectives

During initial attack and extended attack wildfire responses the preserve's fire management program goals should be used to develop incident objectives:

- 1. Conduct all fire management activities in a manner that provides for the safety of the public, firefighters, and preserve staff.***
- 2. Protect the public and preserve staff within and adjacent to the preserve.***
- 3. Protect property, improvements, natural, and cultural resources from adverse effects of fire and fire management activities within and adjacent to the preserve.***
- 4. Maintain fire as a natural part of the ecosystem.***
- 5. Restore fire dependent ecosystems.***

Specific incident objectives will be developed by the Incident Commander and approved at the appropriate level for implementation based on incident size, complexity, and duration.

3.1.3 Wildfire Response Procedures

▪ Decision Support

The Strategic Objectives and Management Requirements for WFDSS are preloaded in the system for the decision makers to use if a wildfire occurs in the Preserve. Current direction on Decision Support information pertaining to the NPS can be found in the Interagency Standards for Fire and Fire Aviation Operations (Red Book) in Chapters 3 and 11.

▪ Initial Response Procedures

When a fire is reported on the preserve or within the initial attack response area the following procedures will be followed. The Duty Officer will determine the resources to be dispatched to the incident based on Preparedness Level and Fire Danger. Fire staffing fluctuates over the course of the year with temporary and career seasonal employees. Initial attack will be coordinated through Lufkin Dispatch in the Texas Interagency Dispatch Center. The current approved Incident Organizer will be used by all assigned incident commanders for fire size-up, risk management, and incident complexity guidance. An incident commander will be assigned to the incident based on the complexity.

There are four approved strategies available to incident commanders and fire suppression staff that can be used individually or in combination on the preserve:

- *Full Suppression* – Both indirect and direct tactics are approved based on fire location, fuels, fire behavior, and resistance to control, access, and availability of natural and man-made barriers.
- *Confine/Contain* – Confine/contain strategy is approved for use when firefighter safety, cost, and protection of natural and cultural resources concerns are identified by the incident commander.
- *Monitor* – A monitoring strategy is approved for use when firefighter safety, cost, and protection of natural and cultural resources concerns are identified by the incident commander. Monitoring can be on-site, from a distance, from the air, and at a frequency determined by the incident commander.

Implementation of any strategy other than full suppression during initial attack must be cleared with the Duty Officer.

▪ Transition to Extended Response

The incident response will shift to extended attack when initial attack strategies or objectives can't be met, generally within one operational period. Indicators that an incident will transition from initial attack to extended attack response are:

- Fire escapes initial attack strategies
- Initial attack objectives will not be met
- Incident complexity increases, generally to Type III and higher

- Resource needs exceed those locally available
- Strategy and objectives selected will take multiple operational periods to achieve

When it is determined that an incident will go to extended attack the following actions will be taken:

Incident Commander

- Notify Duty Officer and brief on anticipated needs and strategy
- Complete/update complexity and risk assessments in incident organizer
- Order appropriate overhead, resources, equipment, and logistical support to implement the approved strategy
- Prepare incident organizer and other documentation for transition with following shift incident commander and development of an incident action plan

Duty Officer

- Notify Superintendent
- Notify IMR Duty Officer
- Ensure initial attack resources are available for following shift
- Begin WFDSS

3.2 Fuel Treatments

3.2.1 Fuels Planning

The fuels management program at Big Thicket is designed to achieve the program goals and objectives, as well as help achieve resource management and fire management goals as defined in NPS policy. Fuel manipulation and ecological restoration activities include prescribed burning, mechanical, herbicide, and biomass removal for ecological restoration and hazardous fuel reduction. Fuel manipulation and ecological restoration activities are prioritized utilizing the Big Thicket Treatment Prioritization Matrix. The Prioritization Matrix uses the following criteria:

- Visitor Use – activities proximity to a visitor use area
- WUI – activities proximity to improvements adjacent to the Preserve
- Restoration – activity identified in the Big Thicket Longleaf Pine Restoration Plan and whether it is in first entry, ongoing, or maintenance phase
- Fire Threat – activity is within or adjacent to fuels that have high frequency and/or fire intensity
- NPS Infrastructure – activities proximity to improvements within the Preserve

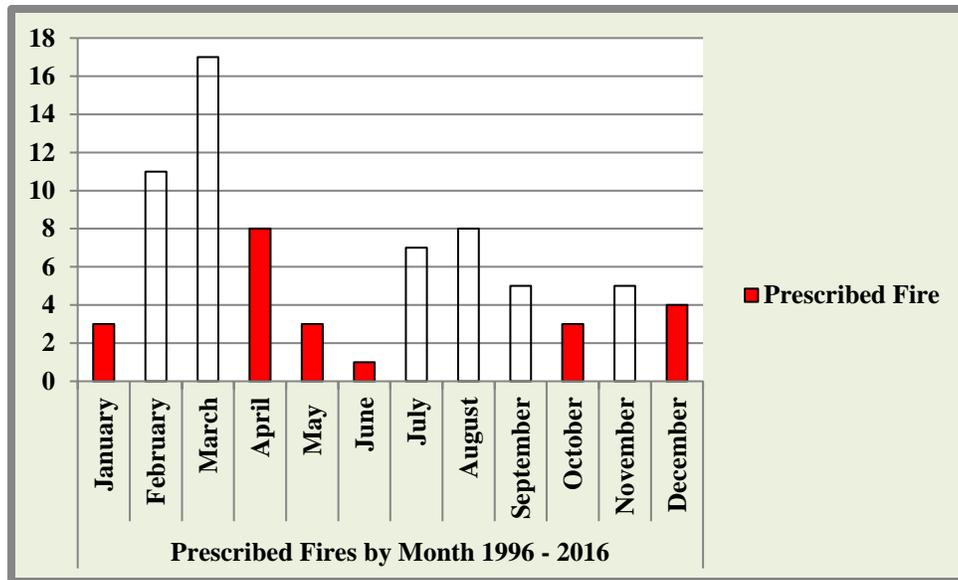


Figure 4. Prescribed Fires by Month 1996 - 2016

- **General Fuels Management Implementation Procedures**

Fuels management activities will be planned and implemented in accordance with Reference Manual 18, Fuels Management chapter, the Interagency Prescribed Fire Implementation Guide, and the Red book.

- **Multi-year Fuels Treatment Plan**

Fuel treatments are generally most effective when maintained on a two to three year cycle due to long growing season and significant vegetation growth rates of the Big Thicket area. The Fuels Treatment Implementation Plan contains active fuels treatments distributed into equitable workloads over three years. It is designed to provide guidance and tracking for fire managers to maintain this two to three year cycle. The Fuels Treatment Implementation Plan is in Appendix E and is reviewed and updated annually.

- **Non-Fire Fuel Treatments**

Non-fire fuel treatments at Big Thicket include mowing, trail clearing, herbicide application, biomass removal, hazardous tree removal, thinning, and facility maintenance. These activities are performed by other park divisions and accomplish defensible space, fuel break, and fuels reduction meeting fuels management objectives.

3.2.2 Fuels Management Goals and Objectives

Fuels management is the primary strategy to meet the goals and objectives of the fire management program. The goals and objectives of the fire management program can be found in section 2.1 and 2.2 of this plan. Treatment specific goals and objectives will be described in the implementation plan.

3.3 Preparedness

Fire preparedness is the state of being ready to provide an appropriate response to wildland fires based on identified objectives. Preparedness is the result of activities that are planned and implemented prior to fire ignitions. Preparedness requires identifying necessary firefighting capabilities and implementing coordinated programs to develop those capabilities.

Preparedness requires a continuous process of developing and maintaining firefighting infrastructure, predicting fire activity, implementing prevention activities, identifying values to be protected, hiring, training, equipping, pre-positioning, and deploying firefighters and equipment, evaluating performance, correcting deficiencies, and improving operations. All preparedness activities should be focused on developing fire operations capabilities and on performing successful fire operations.

Refer to RM 18 – Chapter 5 and chapter 10 of the Red Book for current preparedness direction. Preparedness planning documents are located in Appendix G.

3.3.1 Preparedness Activities

Big Thicket fire management conducts a fire preparedness readiness review every year. The preparedness readiness review utilizes the Interagency Preparedness Review checklists located on the National Interagency Fire Center website.

Areas of review include:

- Agency Administrator
- Fire Management Administration
- FPMA
- Facilities
- Training
- Dispatch
- Engines
- Dozer
- Individual Firefighter

Following the review identified deficiencies are corrected. Additional areas will be added to the review if the need is identified.

Annually the Fire Management Plan, agreements, and operating plans will be reviewed and updated as needed.

▪ **Duty Officer**

A Duty Officer is assigned on a weekly rotating schedule providing daily coverage due to the fact that fires can occur year round at Big Thicket. Duty Officer's will meet the minimal qualifications set forth in the current Step-up / Preparedness Plan in Appendix F. All Duty Officers will have a delegation of authority from the preserve's Superintendent, assigned Duty Officers not included in this delegation will have a separate delegation prior to filling role.

Responsibilities of the Duty Officer:

- Responsible for the oversight and support of any wildfires on the preserve as well as any Mutual Aid fire request.
- Assures all incidents are managed in accordance with the current Fire Management Plan.
- Assures that only fully qualified personnel are used in wildland fire operations.
- Monitors incidents to ensure the complexity is within the incident commander qualifications.
- Ensure that the appropriate parties are advised of fires starting on or threatening the preserve.
- Coordinate with the Fire Management Officer and the Wildland Fire Operations Specialist to ensure appropriate resources are assigned. In the case where these parties are not available, the DO will make all necessary decisions, notifying the Fire Management Officer as soon as practical.
- Monitor unit incident activities for compliance with NPS safety policies.
- Ensure that all incidents are managed in a safe and cost-effective manner.
- Coordinate and set priorities for unit suppression actions and resource allocations.
- Keep agency administrators, regional duty officer, suppression resources and information officers informed of the current and expected situation.
- Plan for and implement actions required for future needs.
- Document all decisions and actions.
- The DO will be available for after hour calls via the DO cell phone.
- During **PL IV** or **V** the DO will notify park staff and Texas Forest Service dispatch when there is a change in Duty Officer.
- Ensure that daily safety briefings are being conducted.
- The DO will manage daily staffing during **PL IV** and **V** and follow work / rest guidelines as stated in the Interagency Standards for Fire and Aviation Operations (Red Book).
- Ensure that all notifications have been made, report location, size and potential to the Fire Management Officer, Superintendent, Chief of Resources, Chief Ranger, and the Public Information Officer if applicable. This may happen via text, emails, phone or personal briefings.
- The DO will understand the Delegation of Authority for the DO and the Incident Commanders of ongoing fires within the preserve. Stay within that delegation.
- If opportunity permits, visit ongoing incidents to discuss current needs with Incident Commanders.
- If possible, participate in the after action reviews for any incidents during that operational period.

The DO will not fill any ICS function connected to any incident. In the event that the DO is required to accept an incident assignment, the Fire Management Officer will ensure that another authorized DO is in place prior to the departure of the outgoing DO.

Due to the small nature of the preserve fire staff, during low complexity or single incidents the DO may be required to fill an incident position. This should only be done when necessary and a replacement DO cannot be found at the onset of the incident. All attempts should be made to hand off DO responsibilities.

The Duty Officer will have the duty officer cell phone with them or forwarded to them while on duty.

3.4 Post-Fire Programs and Response

Big Thicket historically does not have large fire activity requiring significant post-fire response; the primary post-fire activity is suppression repair following equipment use. The Pipeline Road Fire (2011) was an exception when a BAER team was assigned to prepare a Post-fire Response Plan.

Big Thicket Fire Management is responsible for taking prompt action after a wildfire to minimize threats to life or property, and to prevent unacceptable degradation to natural and cultural resources. RM 18 - Chapter 19 and the Red Book will provide direction on current processes and timeframes.

Damages resulting from wildfires are addressed through four activities (see RM 18 and Red Book):

Suppression Repair: the intent is to repair suppression damages and is the responsibility of the Incident Commander. This activity is paid for from wildfire suppression funding.

Emergency Stabilization: the intent is to protect life and property and critical resource values, and is the responsibility of the Superintendent. This activity is paid for from Emergency Stabilization (ES) funding.

Rehabilitation: the intent is to repair wildfire damaged lands that are unlikely to recover naturally to management approved conditions, or to repair or replace minor facilities damaged by wildfire. This activity is paid for from Burned Area Rehabilitation (BAR) funds.

Restoration: the intent is to continue the rehabilitation efforts started in the BAR process beyond the time period limitation set by the department. This activity is paid for from regular non-fire program funds.

3.5 Air Quality/Smoke Management

3.5.1 Air Quality Issues

Smoke production during wildfire events (planned and unplanned) is variable

from light to moderate based on fuel type, fuel moisture, and drought condition. Smoke duration is generally short and residual smoke is light. There are not any Class I Airsheds in close proximity to, or non-attainment areas within, the Big Thicket National Preserve. The southern counties of the preserve (Hardin, Orange, and Jefferson) are close to being in non-attainment status and should be monitored through the Texas Commission on Environmental Quality (TCEQ) for any change of status.

The southeast Texas region has numerous scattered rural homes, small communities, towns, rural roads, and highways. These smoke sensitive areas should be addressed during wildfire events (planned or unplanned). Below is a list of the sensitive smoke areas around preserve units with active prescribed fire treatments:

<p><u>Big Sandy Creek Unit:</u></p> <ul style="list-style-type: none"> • Scattered Rural Housing • Alabama Coushatta Reservation • Sunflower Church • Segno • Dallardsville/ Big Sandy • Indian Springs Community • Hwy 190 • FM 1276 • FM 943 • Sunflower Road • Lily Road
<p><u>Hickory Creek Savannah Unit:</u></p> <ul style="list-style-type: none"> • Scattered Rural Housing • Wildwood Community • Warren • FM 2827 • FM 1910 • Hwy 190
<p><u>Lance Rosier Unit:</u></p> <ul style="list-style-type: none"> • Scattered Rural Housing • Little Rock Church • Kountze • Saratoga • FM 326 • FM 770
<p><u>Turkey Creek Unit:</u></p> <ul style="list-style-type: none"> • Scattered Rural Housing • Warren • McNeely Settlement • FM 1943 • Bumstead Road • Hicksbaugh Road • Pineville Road • Triple D Road • Gore Store Road • FM 420
<p><u>Village Creek Corridor Unit:</u></p> <ul style="list-style-type: none"> • Scattered Rural Housing • Village Mills Community • Big Ticket National Preserve Headquarters and Visitor Center • Hwy 69 • FM 420

During the planning process for a wildfire (planned or unplanned) the area will be reviewed and smoke sensitive areas identified for mitigation.

3.5.2 Smoke Management Activities

Air quality in the state of Texas is managed by the Texas Commission on Environmental Quality (TCEQ). Outdoor burning in the state of Texas is prohibited although there are exemptions for forest management and wildfire hazard mitigation. All prescribed burning conducted on the preserve falls under these two categories. TCEQ does not issue burning permits and commission notification or approval is not required, notification of the Texas Forest Service (TFS) is required. The mitigating measures required to conduct prescribed burning in the state of Texas using these exemptions are listed in Title 30 Texas Administrative Code Section 111 Subchapter B Outdoor Burning:

Title 30 Texas Administrative Code Section 111 Subchapter B Outdoor Burning

Sec. 111.219. General Requirements for Allowable Outdoor Burning

Outdoor burning which is otherwise authorized shall also be subject to the following requirements when specified in any section of this subchapter.

- (1) Prior to prescribed or controlled burning for forest management purposes, the Texas Forest Service shall be notified.*
- (2) Burning must be outside the corporate limits of a city or town except where the incorporated city or town has enacted ordinances which permit burning consistent with the Texas Clean Air Act, Subchapter E, Authority of Local Governments.*
- (3) Burning shall be commenced and conducted only when wind direction and other meteorological conditions are such that smoke and other pollutants will not cause adverse effects to any public road, landing strip, navigable water, or off-site structure containing sensitive receptor(s).*
- (4) If at any time the burning causes or may tend to cause smoke to blow onto or across a road or highway, it is the responsibility of the person initiating the burn to post flag-persons on affected roads.*
- (5) Burning must be conducted downwind of or at least 300 feet (90 meters) from any structure containing sensitive receptors located on adjacent properties unless prior written approval is obtained from the adjacent occupant with possessory control.*
- (6) Burning shall be conducted in compliance with the following meteorological and timing considerations:*
 - (A) The initiation of burning shall commence no earlier than one hour after sunrise. Burning shall be completed on the same day not later than one hour before sunset, and shall be attended by a responsible party at all times during the active burn phase when the fire is progressing. In cases where residual fires and/or smoldering objects continue to emit smoke after this time, such areas shall be extinguished if the smoke from these areas has the potential to create a nuisance or traffic hazard condition. In no case shall the extent of the burn area be allowed to increase after this time.*

(B) Burning shall not be commenced when surface wind speed is predicted to be less than six miles per hour (mph) (five knots) or greater than 23 mph (20 knots) during the burn period.

(C) Burning shall not be conducted during periods of actual or predicted persistent low-level atmospheric temperature inversions.

(7) Electrical insulation, treated lumber, plastics, non-wood construction/demolition materials, heavy oils, asphaltic materials, potentially explosive materials, chemical wastes, and items containing natural or synthetic rubber must not be burned.

Sec. 111.221. Responsibility for Consequences of Outdoor Burning

The authority to conduct outdoor burning under this regulation does not exempt or excuse any person responsible from the consequences, damages, or injuries resulting from the burning and does not exempt or excuse anyone from complying with all other applicable laws or ordinances, regulations, and orders of governmental entities having jurisdiction, even though the burning is otherwise conducted in compliance with this regulation.

The complete Title 30 Texas Administrative Code Section 111 Subchapter B Outdoor Burning and the Outdoor Burning in Texas guide can be found in Appendix L. Big Thicket falls under the jurisdiction of TCEQ Region 10, Beaumont, Texas (409)-898-3838.

3.6 Data and Records Management

Wildland fire data and records will be managed in accordance with NPS policy. Below is a list of wildland fire data and records that will be managed and how and who will manage them:

- ***Fire Reports:*** All fire reports are entered into the Wildland Fire Management Information System (WFMI). Fire reports will be created (or data provided) for all wildfires (planned or unplanned) by the incident commander or burn boss that occur on the preserve. Fire reports for deployments that occur outside of the preserve (locally or nationally) are created (or data provided) by the individual or chief of party. The Fuels Specialist is responsible for ensuring all fire reports are completed and the Fire Management Officer is responsible for approving all fire reports.
- ***Project Reports:*** All fuels treatments will be reported in National Fire Plan Operations & Reporting System (NFPORS). All documentation will be maintained in a project file located in the fire management office. The Fuels Specialist is responsible for NFPORS entries and maintaining project files.
- ***Geospatial Data:*** Geospatial data for wildfires and fuels treatments will be managed to the data standards listed in RM 18, chapter 20. The Fuels Specialist will manage the geospatial data for all wildfires and fuels treatments.
- ***Incident Management Qualifications:*** Incident management qualifications, experience, and training will be entered into the Incident Qualifications

Certification System (IQCS). All qualifications, experience, and training documents will be provided to the Fire Program Management Assistant for entry into IQCS.

4.0 PROGRAM MONITORING AND EVALUATION

4.1 Monitoring

All NPS units applying prescribed fire, using wildfire for resource objectives, or altering the arrangement of wildland fuels for the purpose of modifying fire behavior beyond defensible space building codes must prepare a fire monitoring plan. Monitoring is the primary means of assessing whether the fire program is meeting management goals and objectives. Monitoring provides an avenue for evaluating whether management goals and objectives are being met and whether undesired effects are occurring. When goals and objectives are not being met, monitoring data can be used to facilitate management changes. This practice is part of the adaptive management cycle that the NPS fire management program uses to improve land management practices.

The primary intent of the Big Thicket fire monitoring program is to support fuels and fire management by using monitoring data, in conjunction with professional knowledge and judgment, to provide scientific guidance and feedback that supports adaptive management and the assessment of treatment effectiveness.

There are four levels of fire monitoring described in the Big Thicket Fire Monitoring Plan (Appendix E).

- **Level 1 – Environmental Monitoring:** This monitoring level provides baseline data for assessment of short and long-term change as well as operational decisions. (i.e. fuel moisture, weather...).
- **Level 2 – Physical Observations:** Physical observation monitoring provides a basic overview of the physical aspects of a fire event or fuels management activity. (i.e. fire behavior, smoke characteristics...).
- **Level 3 – Short-Term Change:** Monitoring for short-term changes provides information on the immediate or short-term effects of a fire or fire management activity, at a level sufficient to evaluate whether stated project or program-level management objectives are achieved.
- **Level 4 – Long-Term Change:** Monitoring for long-term change involves identifying the long-term effects of management activities that can be used to guide management decisions. Long-term monitoring of fire or fire management activity in pre-defined vegetation/fuel complexes is required to document that overall programmatic objectives are being met and undesired effects are not occurring.

Minimal monitoring requirements for fire management activities as well as protocol for these monitoring levels can be found in the Fire Monitoring Plan.

Adaptive Management – Adaptive management is a system of management practices based on clearly identified objectives in conjunction with monitoring to determine if management actions are meeting those objectives. In cases where objectives are not being

met, adaptive management is intended to facilitate management changes that will ensure that desired outcomes are met or to facilitate re-evaluation of the desired outcomes (40 CFR; 516 DM 4.16). As described in the Fuels Management chapter in RM 18 (2014), adaptive management is an iterative process requiring continual evaluation of results to determine whether the ongoing treatments are appropriate or whether they need modification. Monitoring data provide the basis for adaptive management by allowing managers to determine whether objectives are being met or whether undesired effects are occurring. Changes resulting from monitoring will be reviewed for compliance with the 2012 FMP EA and 2015 FONSI.

The National Fire Plan recognizes the need for monitoring as part of adaptive management by including it in the 10-Year Comprehensive Strategy (2001) as one of the guiding principles for restoring fire adapted ecosystems: “Monitor restoration and rehabilitation projects for effectiveness and share the results in order to facilitate adaptive implementation.” In addition, the Department of the Interior implemented Secretary of the Interior, Order Number 3270 for better understanding and use of adaptive management by all Interior bureaus.

4.2 Science and Climate Change

Besides the ongoing fire monitoring program there is no fire research ongoing in the Preserve. There have been two fire specific research projects conducted in the preserve:

- *“A Study of Fire Effects on Vegetation in the Big Thicket”* C. Liu, P. Harcombe, R. Knox. Rice University, Department of Ecology and Evolutionary Biology 1995.

This study documents that prescribed fire will bring structural change to some of the plant communities, particularly upland pine, upperslope pine-oak, and sandhill pine. While it had limited effect on the overstory, it can open up the understory, reduce shrub cover, and even introduce an herbaceous component.

- *“Long-term Overstory Vegetation Response to Prescribed Fire Management for Longleaf Pine at Big Thicket National Preserve”* D. Boensch. Stephen F. Austin University 2016.

This study analyzed how altered longleaf pine ecosystems responded to management activities (prescribed fire, mechanical, and chemical treatments). This study included data from the Rice University study as well as from the Big Thicket fire monitoring program. The analysis of the data concluded: “When examining past prescribed burn history records and considering fire intensity and frequency, it is evident that the prescribed burning alone is not going to achieve longleaf pine restoration and has done little to effect species abundance and composition across the different vegetation types. However, efforts to use a combination of management treatments and restoration techniques to restore forest conditions including mechanical and chemical treatments will effectively open up the midstory vegetation and dense overstory. Although initially this method of restoration is expensive and labor intensive, following up these treatments with regular burning will help to restore the understory vegetation and maintain the structure of the longleaf pine forest”.

Climate Change: The preserves strategy to address the potential effects of climate change on fire-adapted ecosystems is to restore the fire dependent longleaf pine communities that once dominated the uplands of the Big Thicket region. These landscapes are resilient and are best adapted to withstand the potential effects.

4.3 Annual Program Evaluation and Fire Management Plan Review Process

Evaluation of the wildland fire program performance is done on a continuing basis. After Action Reviews (AAR) are conducted following each operational period, incident, or project to improve performance by sustaining strengths and correcting weaknesses. Program preparedness reviews are conducted annually. Programmatic reviews are conducted and scheduled by the regional office. Wildland fires and fire-related incidents will be reviewed in accordance with RM 18 - Chapter 17 and the Redbook.

The Fire Management Plan will be reviewed annually in accordance with RM 18 - Chapter 4 in order to incorporate new knowledge, program adjustments, refinements, and updates as needed. This review and update requires Superintendents approval and is normally accomplished through a checklist or template provided by the regional office.

APPENDIX A – References and Citations

- Big Thicket National Preserve Foundation Document 2014 National Park Service, Big Thicket National Preserve
- Big Thicket National Preserve General Management Plan (GMP) 2014 National Park Service, Big Thicket National Preserve
- Boensch, D. 2016 “*Long-term Overstory Vegetation Response to Prescribed Fire Management for Longleaf Pine at Big Thicket National Preserve*” Stephen F. Austin University
- Cooper et al. 2004 “*Natural Resource Summary for Big Thicket National Preserve, Final Report.*” Athens, GA.
- Directors Order #18, Wildland Fire Management 2008 National Park Service, US Department of the Interior <https://www.nps.gov/policy/DOrders/DO-18.html>
- Enabling Legislation For Big Thicket National Preserve Public Law 93-439, As Amended By: P. L. 94-578, P. L. 98-489, And P. L. 103-46
- International Urban-Wildland Interface Code 2006 International Code Council
- Liu C., P. Harcombe, R. Knox 1995 “*A Study of Fire Effects on Vegetation in the Big Thicket*” Rice University, Department of Ecology and Evolutionary Biology
- The National Strategy 2014 US Department of Agriculture, US Department of Interior <https://www.forestsandrangelands.gov/strategy/documents/strategy/CSPhaseIIINationalStrategyApr2014.pdf>
- NPS Management Policies 2006 Section 4.5, Fire Management National Park Service, US Department of the Interior <https://www.nps.gov/policy/mp2006.pdf>
- Reference Manual 18: Wildland Fire Management 2014 National Park Service, US Department of the Interior <https://www.nps.gov/subjects/fire/upload/nps-reference-manual-18.pdf>
- Texas Administrative Code 2014 Title 30, Section 111, Subchapter B Outdoor Burning <http://www.tidrc.com/resources/Laws/OBR.pdf>
- United Nations Educational, Scientific, and Cultural Organization (UNESCO) 2000 Management, Man and the Biosphere Program

APPENDIX B – Definitions

The definitions and terminology used in this document are consistent with the NWCG Glossary of Wildland Fire Terminology. This glossary provides the wildland fire communities a single source for wildland fire terminology commonly used by the NWCG. This Glossary is updated regularly and can be found at the following website:

<https://www.nwcg.gov/glossary-of-wildland-fire-terminology>

APPENDIX C – Compliance for FMP



In Reply Refer To:
FWS/R2/CLES/

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Coastal Ecological Services Field Office
17629 El Camino Real, Suite 211
Houston, Texas 77058
281/286-8282 / (FAX) 281/488-5882



June 25, 2013

Big Thicket National Preserve
National Park Service
6044 FM 420
Koonze, Texas 77625
Attn: Deanna Boensch

Dear Ms. Boensch:

Thank you for your June 10, 2013 letter requesting our concurrence with your may affect, not likely to adversely affect determination pursuant to Section 7 of the Endangered Species Act (ESA) on the federally listed Texas trailing phlox, *Phlox nivalis* spp. *texensis*. This request is in response to Big Thicket National Preserve's (BTNP) proposed update to the 2004 Fire Management Program (FMP) and associated management and restoration actions (prescribed burning, mechanical clearing, and herbicide treatments) to occur within the BTNP.

The U.S. Fish and Wildlife Service (Service) concurs that the proposed FMP is not likely to adversely affect any federally listed threatened or endangered species. This concurrence is based on the implementation of the management and restoration activities detailed in your June 10, 2013 request, as well as our review of project information, and Service files. In the event the project changes or additional information on the distribution of listed or proposed species or designated critical habitat becomes available, the project should be reanalyzed for effects not previously considered.

Our comments are provided in accordance with the ESA of 1973 (16 U.S.C. 1531 et seq.). If you have any questions, or if we can be of further assistance, please contact Charrish Stevens, staff biologist, at 281/286-8282 ext.231.

Sincerely,

Edith Erfling
Field Supervisor

TEXAS HISTORICAL COMMISSION
real places telling real stories

September 29, 2014

Douglas S. Neighbor
Superintendent
Big Thicket National Preserve
6044 FM 420
Kountze, TX 77625

RECEIVED OCT 6 14 7:44

Re: Project review under Section 106 of the National Historic Preservation Act of 1966:
Program for Cultural Resource Action Related to Fire Management Activities on the Big
Thicket National Preserve (National Park Service)

Dear Mr. Neighbor:

Thank you for your correspondence describing the above referenced project. This letter serves as comment on the proposed project from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission.

The review staff, led by Kerry Nichols, has reviewed your letter and maps requesting a finding of "no effect" for fire management activities at Big Thicket National Preserve and we concur with your conclusions and recommendation that the proposed federal undertaking will not adversely affect sites listed on the National Register of Historic Places or those eligible for inclusion on the National Register. Therefore, relative to the jurisdiction of the State Historic Preservation Officer this project may proceed without further consultation with this office. We also agree with your stipulation that if any cultural resources are discovered during the project, work will be suspended and procedures stipulated in 36 CFR Part 800.13 will be followed.

Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. **If we may be of further assistance, please call Kerry Nichols of our staff at 512/463-6508.**

Sincerely,



for
Mark Wolfe, State Historic Preservation Officer

MW/kn





National Park Service
U.S Department of the Interior
Big Thicket National Preserve
Texas

Finding of No Significant Impact Fire Management Plan Environmental Assessment

BACKGROUND

In December 2012, the National Park Service (NPS) submitted to the public a Fire Management Plan Environmental Assessment (EA) for Big Thicket National Preserve (BTNP). The plan describes fire management methods including the addition of targeted herbicide application. The EA was prepared in compliance with the National Environmental Policy Act (NEPA) of 1969, regulations of the Council on Environmental Quality (CEQ) (40 CFR §1508.9), and NPS Director's Order (DO)-12 (Conservation Planning, Environmental Impact Analysis, and Decision-Making). The EA provides the decision-making framework that identifies significant issues and concerns facing Preserve management, presents an analysis of reasonable management alternatives and their effects, and discusses the methods intended for fire management at BTNP.

This document records 1) a Finding of No Significant Impact (FONSI), and 2) a non-impairment determination.

SELECTED ACTION

Alternative 2, Utilize Herbicide as Additional Treatment Tool, is the preferred alternative and NPS's selected action because it best meets the purpose and need for the project as well as the project objectives to 1) to continue BTNP fuel manipulation and ecological restoration activities including prescribed burning, mechanical, planting, seeding, and consider biomass removal on a case-by-case basis as an aid to ecological restoration and hazardous fuel reduction; 2) to consider adding targeted herbicide use to the above list of fuel manipulation activities as an aid to ecological restoration, maintenance, and hazard fuel reduction; 3) to respond safely and efficiently to wildfires; 4) to provide effective rehabilitation of wildfire areas (Burned Area Rehabilitation and Burned Area Restoration); 5) to continue interagency cooperation and coordination, and public outreach about BTNP fire management and restoration activities; 6) to update policy and terminology language and discussions in the FMP document; and 7) to continue active monitoring of fire program field actions, support sound resource management science, and utilize adaptive management to improve the program.

The selected alternative evaluates the use of herbicide spraying as an additional integrated pest and fire management tool in addition to the current fire management strategies used at BTNP. This includes the flexibility to consider and use improved techniques, technology, and newly approved herbicides in the future if more environmentally acceptable alternatives are developed. The use of herbicides will be considered in instances where Chinese tallow (*Triadica sebifera*) and other non-native, invasive species create dense understories of vegetation. This tool will also be considered in areas where native, early successional, shrub and tree species such as titi (*Cyrilla racemiflora*), and yaupon (*Ilex vomitoria*), have built up dense populations due to historic timber harvesting and fire suppression practices. Herbicide treatment methods will include basal, hack and frill, cut stump, foliar applications, and hand-pulling. Hack and frill and cut stump methods will be used on all trees greater than eight inches in diameter. Foliar spraying will be used on trees less than five feet in height. All treatments will be done with NPS approved herbicides and as specified on the label and precautions would be taken to avoid areas of standing waters. The use of targeted herbicide application, such as hand application of herbicide to specific basal or foliar plant areas, will minimize chances for overspray.

Use of targeted herbicide applications in combination with prescribed burn, manual, and/or mechanical fuel treatments will reduce the timeframe needed to reestablish native herbaceous understory, will reduce the dense fuels created by invasive and early successional mid-story brush species, and, will allow fire dependent climax species including longleaf pine, to return into the treated landscape units. This will help to return vegetation communities to the range of natural variation where prescribed burning could be utilized as the primary natural change and maintenance agent. Being able to more successfully reduce mid-story brush will remove a significant fuel hazard in prescribed burns, making prescribed burning safer for employees and nearby residents.

MITIGATION MEASURES

In order to reduce impacts on the human environment, NPS has proposed mitigation measures listed in Appendix 1 as part of the application for the proposed alternative.

ALTERNATIVES CONSIDERED

Two alternatives were evaluated in the EA: Alternative 1, No Action, and Alternative 2 (Utilize Herbicide as an Additional Treatment Tool). The no action alternative was required under NEPA and established a baseline for comparing the present management direction and environmental consequences of the action alternative. Under the no action alternative, the approved fire and fuels management program at BTNP would continue operating under the 2004 Fire Management Plan, but herbicide use would not be utilized in ecological restoration, maintenance or hazard fuel reduction activities unless separate, project specific NEPA processes occurred. Alternative 2, the preferred alternative, evaluates the use of targeted herbicide treatments in addition to current management strategies.

Three additional alternatives were considered during the planning process; however these alternatives were eliminated from detailed analysis. Eliminated alternatives included: 1)

Discontinuing mechanical treatment and prescribed burning activities; 2) Delaying fire management activities until extensive new fire history research is completed; and 3) Emphasizing or increasing the role of natural fire in BTNP ecosystem restoration and maintenance. Rationale for exclusion is described individually for each management method in the EA.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

According to the CEQ regulations implementing NEPA (43 CFR 46.30), the environmentally preferable alternative is the alternative “that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources. The environmentally preferable alternative is identified upon consideration and weighing by the Responsible Official of long-term environmental impacts against short-term impacts in evaluating what is the best protection of these resources. In some situations, such as when different alternatives impact different resources to different degrees, there may be more than one environmentally preferable alternative.”

Alternative 2, Utilizing Herbicide as an Additional Treatment Tool, is the environmentally preferred alternative for several reasons: 1) it will reduce the timeframe needed for successful ecological restoration; 2) it will increase the resilience of fire dependent ecosystems to future natural disturbances such as wildfire, drought, insect outbreaks, wind events, and climate change; 3) it will restore fire-adapted ecosystems and associated wildlife; and 4) it will reduce a significant fuel hazard in mid-story brush density, making prescribed burning safer for employees and nearby residents and wildfire control more successful. For these reasons, Alternative 2 causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources, thereby making it the environmentally preferable alternative.

By contrast, Alternative 1 (No Action) is not the environmentally preferable alternative because the lack of using herbicide would result in restoring fewer acres of native vegetation. This would result in fuels build-up primarily produced by exotic species, and wildfires would likely be more severe and would be more difficult to control. Visitors, adjacent communities, NPS infrastructure, natural resources, cultural resources, and oil and gas facilities both within and adjacent to NPS lands, would be vulnerable to artificially severe effects of wildfire.

WHY THE SELECTED ALTERNATIVE WOULD NOT HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT

As defined in 40 CFR §1508.27, significance is determined by examining the following criteria:

Impacts that may be both beneficial and adverse. A significant effect may exist even if the federal agency believes that on balance that the effect will be beneficial.

Implementation of the preferred alternative will result in adverse impacts ranging from short-term to long-term and negligible to moderate. Resource topics whose projected impacts exceeded minor levels were retained for further analysis within the EA and are reviewed below. The impacts on floodplains, cultural landscapes, ethnographic resources, paleontological resources, museum collections, soundscapes, lightscapes, prime and unique farmlands, Indian trust resources, environmental justice, wilderness, and park operations did not exceed minor levels and were therefore dismissed from further analysis.

Impacts to air quality will be no more than moderate, direct, short-term, and localized, and will be associated with increased particulate matter and smoke as a result of prescribed burns and emissions from mechanical equipment. However, the management strategies will also result in a lower fuel loads in BTNP, decreasing the intensity of future fires and lowering the probability of wildfires.

Impacts to geology and soil resources, will be direct, minor, short-term, and localized from substrate disturbance (e.g., changes to soil chemistry, direct soil compaction, and erosion) associated with prescribed burns, mechanical, and chemical treatments. These impacts will be no worse than minor because the low frequency of mechanical and chemical treatments and the longer term beneficial impacts of increased soil nutrients released from prescribed burns, and increased soil stability and decreased fire intensity as herbaceous vegetation is restored.

Impacts to vegetation would be no more than moderate, short-term, localized disturbance (e.g., top-killed vegetation from fire or mechanical treatments or direct mortality from herbicide) associated with fuel management treatments. The effects to the native vegetation structure, composition, and function of the historically fire-maintained forests would be direct, minor to moderate, beneficial, long-term and localized. Impacts due to minimizing the potential for future severe wildfires and increasing the potential for lower intensity ground fires over time as the amount of area restored increases and fuel hazard reduction increases (i.e., invasive mid-story brush) would be indirect, beneficial, minor to moderate, localized, and long-term.

Impacts to wildlife would be no more than moderate, short-term, localized direct disturbance associated with fire operations and changes in habitat. Long-term, localized direct beneficial effects will occur as longleaf pine ecosystems are restored where they historically occurred thereby providing high quality habitat to wildlife populations.

Impacts to special status species would be no more than moderate, long-term, beneficial and localized. As critical habitat is restored, it is anticipated that the special status species associated with the longleaf pine ecosystem will increase in population.

Most herbicide applications would be conducted using backpack sprayers and 'spot' spraying which minimize the risk to non-target, special-status plant species. Detailed surveys by trained botanists would occur to identify and protect any individual or pockets of special status plant species should broadcast herbicide treatments be prescribed as an IPM tool.

Water resources impacts will consist of minor, short-term, and localized disturbance associated with prescribed burns, mechanical, and chemical treatments. These impacts will be no worse than minor, because mitigation measures create mechanical and chemical treatment buffers near waterways and prescribed burns typically will not carry in the vegetation communities near the waterways, thereby reducing potential impacts from erosion of soil and ash into the waters of BTNP.

Impacts to riparian/wetlands would be no more than moderate, short-term, and localized. Direct disturbance would result from fuel management treatments including fire, chemical and mechanical operations. These activities would result in alteration of riparian and wetland structure or function through direct and indirect impacts, such as increased soil erosion, turbidity, and sedimentation, reduced water quality, and potential pulses of water. Most of the riparian areas and many of the wetlands are excluded from chemical and mechanical treatments, however fires are allowed to burn, typically following natural conditions of available burnable fuels.

Cultural resources, including archeological and historic, impacts would be no more than moderate, direct, long-term and site specific. Known resources will be protected and buffered from treatments, while unknown resources could be preserved by not disturbing the soil. As fuel loads decrease and the intensity of fires decrease by maintaining more grassy fuels, archeological resources will be less impacted by prescribed burns and protected from future wildfires. Post-fire pedestrian surveys will effectively determine the types and locations of resources.

Impacts on adjacent landowners and uses would be no more than moderate, direct, and long-term as the potential for more severe wildfires is minimized with reducing densities of mid-story brush.

Visitor use and experience impacts will be no more than moderate, short-term, localized disturbance associated with closures from fire danger and associated fire suppression tactics, and during and immediately following herbicide treatments. Minor positive impacts are expected for most visitors due to the reduced potential for future severe wildfires removing all vegetation from the scenic landscapes and the perpetuation of native vegetation communities and associated wildlife viewing opportunities.

Implementation of the fire management plan within BTNP will involve a number of actions that could potentially affect public health or safety. Concerns have been addressed under "Visitor Use, Health and Safety, and Experience" (Section 3.6.2 in the EA) and as discussed above. Specific mitigation measures are discussed in Section 2.2 of the EA and are listed in Appendix 1 of this document. Such mitigation measures include careful planning, public notifications, and safety briefings, posting signs on smoke hazards, checking pipelines before burns and keeping emergency contact information available. Herbicide treatments would always follow manufacture's label guidelines, and as an additional precaution, treatment areas will be closed to the public for no less than 24 hours to mitigate exposure to any chemically sensitive visitors. Through proposed mitigation measures, potential

adverse impacts to public health or safety have been minimized to no more than moderate, direct, and long-term.

The degree to which the proposed action affects public health or safety.

The preferred alternative will have an overall beneficial effect on public health and safety, by reducing unnaturally high fuel loads, and maintaining a resilient, fire adapted ecosystem. Use of herbicides will effectively and efficiently reduce fuels created by exotic, mid-story brush.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, parks lands, prime farmlands, wetlands, wild and scenic rivers, ecologically critical areas.

Historic or Cultural Resources: Cultural resources have been discussed previously and later in this document.

Prime and Unique Farmland Soils: Soils inside BTNP and on other NPS-administered lands are not considered prime and unique farmland soils because they are public lands unavailable for food or fiber production. Further, NPS does not assess effects under the Farmland Protection Policy Act (Public Law 97-98) to the proposed project activities outside of NPS administered lands because NPS has no regulatory authority on those lands.

Wetlands: Potential effectors of the proposed action on wetlands have been discussed previously in this document. Adverse impacts would be avoided or minimized through the mitigation measures described in Appendix 1.

Wild and Scenic Rivers: There are no designated wild and scenic rivers within or adjacent to BTNP that could be affected by the preferred alternative.

Ecologically Critical Areas: Proposed fire management activities would occur throughout BTNP, and comprehensive mitigation measures would be incorporated to avoid or minimize adverse impacts, both direct and indirect, to ecologically critical areas, as previously discussed. Furthermore, ecologically critical areas would benefit from fire management activities and the restoration of the longleaf pine plant communities which are fire-dependent ecosystems. Management activities would be planned to avoid and protect ecologically critical areas within BTNP through implementation of mitigation measures discussed in Appendix 1.

The degree to which the effects on the quality of the human environment are likely to be highly controversial.

Under NEPA "controversial" refers to circumstances where a substantial dispute exists as to the environmental consequences of the proposed action and does not refer to the existence of opposition to a proposed action, the effect of which is relatively undisputed (43 CFR 46.30). With mitigation measures in place and public notification occurring in

areas receiving prescribed burn or chemical treatments, no effects on the quality of the human environment are anticipated to be highly controversial under the preferred alternative, and the public generally agrees that restoration and maintenance of fire dependent ecosystems is necessary to protect the long-term integrity of BTNP and its resources.

The degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks.

There were no highly uncertain effects, or unique or unknown risks identified with this proposal. Proposed activities under the preferred alternative include management measures for which substantial research, information, and management experience exists and that have been incorporated into the evaluation completed in the EA.

The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

NPS is in the process of finalizing guidance on future Preserve management activities and assessing potential impacts of such activities under the *BTNP General Management Plan/Environmental Impact Statement*. The activities covered by this EA are consistent with the actions described in that plan, and therefore do not set precedent or represent a decision in principle about a future consideration.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

In the EA, NPS disclosed to the public the potential impacts that could occur inside BTNP. NPS also analyzed the cumulative impacts of past, present, and reasonably foreseeable actions within and outside Preserve boundaries. No significant cumulative impacts were identified in the EA.

The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

Archaeological and Historic resources were analyzed in this EA; Cultural Landscapes, Ethnographic Resources, and Museum Collections impact topics were dismissed. Potential adverse impacts to archaeological and historic resources include direct damage from fire and smoke, direct damage from management responses to wildfire (fire lines, retardant drops, staging areas, spike camps, temporary water sources and fire camps), and indirect damage such as flooding, erosion, and exposure to vandalism. Appropriate mitigation

measures will be applied during planned actions; mitigation measures will be applied during wildfire responses if possible, and may or may not be successful. Mitigation measures can be found in the EA, and in Appendix A of this document.

The NPS found that over all, the preferred alternative will have “no adverse effect on historic properties” under Section 106 of the National Historic Preservation Act, and specific projects will be planned and implemented to comply with this determination. The Texas Historic Commission concurred with this determination in a letter dated October 6, 2014.

The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

Potential effects of the proposed action on endangered or threatened species and their designated critical habitat were evaluated in the EA and have been previously discussed herein. Mitigation measures described in the EA and Appendix 1 of this document would avoid, minimize, and mitigate adverse effects to these resources.

In their June 25, 2013 letter of concurrence, The Coastal Ecological Services Field Office (US FWS) has agreed that the preferred alternative will have “no effect” to the red-cockaded woodpecker, Louisiana black bear, Louisiana pine snake, and Navasota Ladies’ Tresses, and that the preferred alternative “may affect, not likely to adversely affect” to the federally listed Texas trailing phlox, pursuant to Section 7 of the Endangered Species Act (ESA).

Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.

The preferred alternative is in compliance with all applicable state and federal environmental protection laws and regulations.

PUBLIC INVOLVEMENT AND NATIVE AMERICAN CONSULTATION

External scoping was conducted by distributing scoping letters on January 10, 2012 with a 30 day comment period to gather public input and aid in the planning process. After developing the plan, the EA was made available for public review and comment during a 30-day period ending January 6, 2013. A direct mailing notifying interested and affected parties was distributed to BTNP’s mailing list, and the document was posted to the NPS Planning, Environment, and Public Comment website. Notification was made to numerous federal, state, and local agencies and individuals, the Alabama-Coushatta Tribe of Texas, nongovernmental organizations and other entities, as listed in section 4.2 of the EA.

Four responses were received regarding the EA: one from the Sierra Club Lone Star Chapter, one from the Nature Conservancy, one from the Texas Conservation Alliance and one additional response from an unaffiliated individual. No comments were received from

Native American tribes. NPS determined that all of the commenters presented numerous substantive comments. Responses to the substantive comments are attached, and changes made to the text of the EA are indicated on the Errata Sheet. The FONSI and Errata Sheets will be sent to those who provided comments on the EA, and those who requested a copy.

CONCLUSION

As described above, the preferred alternative does not constitute an action meeting the criteria that normally require preparation of an environmental impact statement (EIS). The preferred alternative would not have a significant effect on the human environment. Environmental impacts that would occur are generally short-term and negligible to moderate, with long-term positive effects. There are no unmitigated adverse effects on public health or safety, or to any unique characteristics of the geographic area. No highly controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the action would not violate any federal, state, or local environmental protection law.

Based on the foregoing, it has been determined that an EIS is not required for this project and thus will not be prepared.

Approved:



Sue E. Masica

Date

Regional Director, Intermountain Region, National Park Service

APPENDIX 1: Mitigation Measures under the Preferred Alternative

The following specific mitigation measures will help minimize potential effects of Preserve fire management activities on resources, staff, and the public. They will be incorporated into the new FMP and fire management work at BTNP as appropriate. Once a mitigation measure has been mentioned, it will apply to all subsequent resource topics where relevant.

Air Quality

- Fire staff will perform other agency and public notification procedures for all BTNP prescribed burns, focusing on residents that might be impacted by smoke from Preserve prescribed burns.
- BTNP will follow state burning regulations issued by the Texas Commission of Environmental Quality (TCEQ).
- Prescribed burns would be postponed when Texas or County air regulatory agencies declare air pollution episodes where smoke from fires would worsen bad air quality.
- Coordination with the Superintendent will occur in advance to fully consider the effects of prescribed fire smoke during holidays or periods of heavy public visitation and hunting activities.
- Smoke transport winds will be assessed by prescribed fire managers to determine smoke impacts to sensitive receptors and population areas.
- Timing and methods of ignition will be constantly assessed on prescribed burns to minimize smoke impacts.
- Coordination with adjacent agencies and landowners will occur regarding the total number of prescribed fires simultaneously occurring in the area, to limit cumulative smoke impacts.
- Smoke monitoring will occur throughout and immediately after Preserve prescribed fires; data will be saved as part of the burn documentation records.
- On significant wildfires, Preserve incident commanders will work with public information officers to regularly update local residents on expected smoke impacts.
- Herbicide would only be utilized after undergoing the NPS national and regional approval process, and would follow all label instructions.
- Prescribed fire would not occur sooner than 2 weeks after herbicide has been utilized in an area; in most cases fire would not be utilized until the full effects of the herbicide treatment become visible, which might typically be 1-2 months. Longer delays may be planned to allow target vegetation time to dry out and burn better during prescribed burning. This delay time would also allow the herbicide to be absorbed into the target plant tissue and naturally decompose before burning the vegetation it has been applied to. Generally, the class of herbicides that BTNP utilizes attacks plant hormones and are not harmful to non-plants.

Geology and Soil Resources

- The need for water diversion devices, placement of dead brush and organic debris on firelines would be assessed as projects are completed.

- Constructed firelines would be built to the minimum width needed for safe control operations.
- Firefighters will utilize Minimum Impact Suppression Tactics (MIST) to minimize impacts of fire response operations whenever possible.
- Vegetation will be removed, cut or manipulated along firelines to the minimum necessary for fire control or to protect human, natural or cultural values.
- Natural, manmade features or vegetation change barriers will be utilized whenever possible to minimize the need for fireline construction. Indirect/confine type strategies will be the preferred strategy for most wildfires.
- Utilize water, pumps, and hose lines when available for wetlines or to back-up smaller firelines to minimize the amount of fireline construction.
- Rehabilitate constructed firelines after fires are out to prevent erosion and visual effects.
- Stream or water crossings should be avoided when possible by firelines or equipment. When necessary they should be carefully constructed to minimize disturbance and erosion to the watercourse. Crossings should promptly be restored and rehabilitated in consultation with resource specialists.
- Equipment operators will be trained to minimize soil and vegetation disturbance, compaction, and displacement.
- Dozer and/or dozer plow use will be avoided when possible. Their use may be considered when necessary to protect people, structures, or critical resources. When possible, their use would be approved by the Superintendent and coordinated with a Resource Advisor, but consultation may not be possible in emergency situations.
- Equipment use will avoid operation on erosive soils or saturated soil conditions.
- When possible, mowing or mastication may be utilized for firelines. When scraping is needed, it will be to the minimum depth necessary for safe fire control operations.
- Utilize less sensitive travel routes for firefighters, vehicles, and equipment whenever possible.
- Identify slash disposal areas that have no cultural resources or sensitive natural resources.
- Large mechanical equipment with major or excessive fluid leaks will not be utilized. Refueling or filling or mixing of gas and other fluids will be avoided in the field when possible; when necessary appropriate precautions will be taken to prevent spills.
- Reasonable procedures will be developed to prevent spills of foam and fire retardant chemicals. These actions will be taken away from streams and watercourses
- Mop-up on fires will be done utilizing methods to minimize soil disturbance.
- Existing roads will be utilized by vehicles and equipment as much as possible.
- After major wildfires, Burned Area Emergency Rehabilitation (BAER) will be considered in consultation with regional office and resource specialists.
- Utilize UTV's, balloon tired vehicles, or soft tracked vehicles when possible to minimize long-lasting soil damage when off road travel is required.

- Fireline explosives are not usually used at BTNP; utilize only upon written permission of Superintendent.
- Herbicide and application devices would be worked on, filled and mixed only utilizing approved leak prevention and catchment systems. These sites should be away from streams or standing water.
- No visible leakage of chemicals will be allowed from equipment used for transporting, storing, mixing, or applying chemicals.
- Staff utilizing herbicide will be trained in approved procedures related to proper handling, storage, transportation, mixing, spill prevention, and application procedures.

Water and Riparian/Wetland Resources

- Water diversion devices would be utilized on firelines with the potential for erosion to minimize runoff and erosion issues.
- Equipment operators will be trained to minimize soil and vegetation disturbance, compaction, and displacement.
- The preferred rehabilitation of firelines will utilize replacement of slash or organic debris as the preferred method, but check dams, or other diversion devices may be constructed if necessary in steep slope areas to prevent runoff and sedimentation.
- Chemical retardant, foam, and gasoline refueling will not be utilized within 200 feet of standing water or streams.
- Helicopter bucket dipping will only be allowed from water sources approved by the Incident Commander. The approval would be site specific, based on interagency helicopter safety standards, and the best available knowledge of Preserve resources in an emergency. If possible, approval would be in consultation with a Resource Advisor or appropriate Park Managers, as available.
- Herbicide would not be used within 3 hours of predicted precipitation or in areas of standing or flowing water.

Vegetation

- Systematic monitoring would be implemented to measure the effects of herbicide use on target vegetation and adjacent areas.
- An herbicide application map and treatment plan will be developed for each treatment area.
- Avoid extensive falling and bucking of trees.
- All disturbed areas from fireline construction would be rehabilitated, which would include planting and/or reseeding with native plant species based upon recommendations of resource managers.

Wildlife, including Special Status Species

- Herbicide would only be used after visitors were out of the area and appropriate informational signing was placed at all human entryways to the spraying area to ensure hunters have the opportunity to be informed.
- Before initiating non-emergency field fire management activities, NPS biologists or resource specialists will be consulted to determine presence or effects on sensitive

species. If present, mitigation actions will be developed to minimize impacts on species of concern.

- Low level aviation use may be curtailed by the fire staff in consultation with resource management if certain sensitive wildlife species could be impacted.
- Chemical retardant, foam, and gasoline refueling will not be utilized within 200 feet of standing water or streams to protect fisheries and aquatic animal life.
- Helicopter use will be minimized, and flight levels kept high, in bird focus areas, when necessary, to prevent collisions with aircraft. These focus areas include raptor nesting areas and waterfowl concentration areas. Determining these focus areas will be the responsibility of Resource Advisors working with the Incident Commander or Prescribed Fire Burn Boss. Determination depends on best available knowledge of season, species, and aviation habits and behaviors.
- Helicopter bucket dipping will only be allowed from water sources approved by the Incident Commander. The approval would be site specific, based on interagency helicopter safety standards, and the best available knowledge of Preserve resources in an emergency. If possible, approval would be in consultation with a Resource Advisors or appropriate Park Managers, as available.

Invasive Plants

- Whenever possible, incoming vehicles, engines, and equipment from outside the immediate area will be cleaned (including the undercarriage) upon arrival to remove invasive weed seeds.
- Resource managers will work with fire staff to prevent cross-contamination from aircraft water drops that may utilize natural water sources with species foreign to BTNP.
- Herbicide would be used to eliminate exotic invasive plants according to established safety and application procedures.

Cultural Resources

- Compliance with section 106 of the National Historic Preservation Act will occur before prescribed burn or fuel treatment projects.
- Educate fire personnel about the significance of cultural sites, how to identify those sites, and appropriate actions and notifications to be made if sites are encountered.
- Identify cultural sites in advance of wildfire, prescribed fire, or fuels treatment activities in order to plan and devise avoidance strategies when possible.
- Avoid building firelines and ground disturbance in cultural site areas.
- Utilize defensive and protection tactics, collaborating with cultural specialists, to prevent damage to historic, cultural, archeological, ethnographic, or landscape sites.
- Continue to collaborate and coordinate with Preserve affiliated tribes to prevent damage to ethnographic resources, even if unrecorded, before planned projects.
- Flush cut stumps in cultural sites rather than remove. Avoid ground disturbance as much as possible in and around cultural sites.
- During wildfires, fire managers will regularly update BTNP resource specialist with cultural responsibilities on initial and extended attack response strategies, ground disturbance, and extent of fire area to facilitate focus on cultural resources.

- Preserve cultural and historic site base maps will be immediately available to incident commanders to allow them to avoid impacts to cultural sites.
- Spot monitoring or accompaniment of heavy equipment use during wildfires will occur by Resource Advisors (READ's) to ensure avoidance of damage to archeological or cultural sites.
- Special flagging will be utilized to identify archeological and historic sites; flagging must be monitored as fire threat passes and may need early removal to prevent undue attention to cultural sites.
- Avoid low level aircraft flights over the Alabama-Coushatta Indian Reservation.

Adjacent Landowners

- Fire staff will perform other agency and public notification procedures for all Preserve prescribed burns.
- Emphasize the safety of fire staff and the public as the highest priority in all fire management activities.
- Preserve neighbors, visitors, and local residents will be notified of all fire management activities that have the potential to impact them.
- Preserve will monitor fuel, weather, and fire condition parameters and may limit public access and activities in BTNP when extreme conditions develop, as described in Preparedness Level planning.
- Initial attack staff will determine the proximity of fire to visitors, adjacent landowners, and communities. They will coordinate with local agencies to inform them of the potential hazard and evacuate as necessary.
- As burned areas are opened to visitors, signs will be posted informing the public of potential hazards in the burned areas.
- Herbicide would only be used after visitors were out of the area and appropriate informational signing was placed at all human entryways to the spraying area.

Visitor Use and Experience

- The fire management staff will work with protection staff and local agencies on posting smoke hazard signs if smoke will impact roadways.

Human Health and Safety

- Safety briefings outlining known hazards and mitigations will occur before engaging in fire management activities.
- Prescribed fire burn boss will work with local residents in close proximity to burns to ensure their safety.
- The fire management staff will work with protection staff and local agencies on posting smoke hazard signs if smoke will impact roadways.
- Oil and Gas operators would check (i.e., sniff) pipelines within a prescribed burn unit prior to burning.
- In case of an oil and gas infrastructure emergency, all emergency contact information for oil and gas operators within and around BTNP will be available.

APPENDIX 2: Non-Impairment Finding

National Park Service's *Management Policies, 2006* requires analysis of potential effects to determine whether or not actions would impair park 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 resources and values. NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adversely impacting park resources and values.

However, the laws do give NPS the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given NPS the management discretion to allow certain impacts within park, that discretion is limited by the statutory requirement that NPS must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgement of the responsible National Park Service manager, would harm the integrity of park resources or values including the opportunities that otherwise would be present for the enjoyment of those resources or values. An impact to any park resource or value may, but does not necessarily, constitute an impairment. An impact would be more likely to constitute an impairment to the extent that it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- key to the natural or cultural integrity of the park; or
- identified as a goal in the park's general management plan or other relevant NPS planning documents.

An impact would be less likely to constitute an impairment if it is an unavoidable result of an action necessary to pursue or restore the integrity of park resources or values and it cannot be further mitigated.

The park resources and values that are subject to the no-impairment standard include:

- the park's scenery, natural and historic objects, and wildlife, and the processes and conditions that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes; ethnographic resources; historic and prehistoric sites, structures, and objects; museum collections; and native plants and animals;
- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;

- the park's role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established.

Impairment may result from National Park Service activities in managing the park, visitor activities, or activities undertaken by concessioners, contractors, and others operating in the park. The NPS's threshold for considering whether there could be an impairment is based on whether an action would have significant effects.

Impairment findings are not necessary for visitor use and experience, socioeconomics, public health and safety, environmental justice, land use, and park operations, because impairment findings relates back to park resources and values, and these impact areas are not generally considered park resources or values according to the Organic Act, and cannot be impaired in the same way that an action can impair park resources and values. After dismissing the above topics, topics remaining to be evaluated for impairment include air quality, geologic and soil resources, vegetation, wildlife, special status species, water resources, riparian and wetlands, archaeological resources, and historic resources.

After dismissing the above topics, topics remaining to be evaluated for impairment include These topics are important aspects of the fundamental resources and values for Big Thicket National Preserve which are identified in BTNP's *General Management Plan* (1980), and which are considered necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; are key to the natural or cultural integrity of the park; and/or are identified as a goal in the park's General Management Plan or other relevant NPS planning document.

Air Quality–The Project Area is classified as a Class II area under the Prevention of Significant Deterioration (PSD) provisions of the Clean Air Act of 1963 and amendments. As such, the area's air quality is protected by allowing only limited increases (i.e., allowable increments) over baseline concentrations of pollution for SO₂, nitrogen oxides (NO_x), and PM. The PSD permitting process is administered by the Texas Commission on Environmental Quality (TCEQ) and applies to defined categories of new or modified sources of air pollution with emissions greater than 100 tons per year and all other sources greater than 250 tons per year.

The preferred alternative would have short-term, localized, direct adverse impacts that would have a negligible to main effect on the air quality of BTNP. Because major adverse impacts are not anticipated to occur under the preferred alternative, the proposed action will not result in impairment to air quality.

Geology and Soil Resources– BTNP consists of four geologic formations and from youngest to oldest includes Beaumont, Montgomery, Bentley, and Willis Formations. The age of these surface deposits ranges from 250 million years old to 125, 000 years old

Pleistocene fine-grained deposits. There are 46 soil-mapping units within BTNP. The soils reflect the different geologic and drainage conditions across BTNP. Soils formed in floodplains range from loamy to clayey, and occur on old oxbows to moderately well drained natural levees adjacent to stream channels. Upland soils are generally loamy to sandy in texture and are found on a wide variety of landscapes. Immediately above the floodplains are sandy point bar deposits and low, mounded terraces. The northern areas of BTNP are undulating and well drained compared to the low, flat, poorly drained areas of the southern portion.

The preferred alternative would have minor, short-term, and localized adverse impacts and moderate positive impacts, resulting in a net positive effect on geologic resources. Because major adverse impacts are not anticipated to occur under the preferred alternative, the proposed action will not result in impairment to geologic resources.

Vegetation– BTNP is often referred to as a “biological crossroads”, one of the richest plant growing environments in the continental United States with approximately 1,400 species of trees, shrubs, forbs, and grasses. Diverse vegetation thrives in the long, warm growing season with abundant moisture. BTNP is an ecotone between the moist eastern hardwood forest and the prairies to the west.

There are 3 upland vegetation types (Sandhill Pine Forest, Wetland Pine Savanna, and Upland Pine Forest,) which are all strongly influenced by fire and edaphic (soil) conditions. Historically the dominant pine species in the Upland Pine Forest was longleaf pine. In many of these communities, longleaf pine is no longer dominant, however, due to factors such as aggressive fire suppression and logging, and subsequent replanting with faster growing species such as slash pine and loblolly pine. Dominant tree species in the Sandhill pine forest include post oak (*Quercus stellata*), bluejack oak (*Quercus incana*) and 3 types of native pines including longleaf pine, shortleaf pine (*Pinus echinata*), and loblolly pine (*Pinus taeda*). The past impacts of logging and subsequent fire suppression in these areas may explain why longleaf pine is not the dominant pine species in these communities. Wetland Pine Savannas are among the rarest plant communities in the Southeast and in BTNP. Over the past two centuries, these communities have been significantly degraded due to human settlement and fire suppression; less than 3 percent of the communities remain. Upper Slope Pine Oak Forest, Middle Slope Oak-Pine Forest, and Lower Slope Hardwood Pine Forest, transition from dry to mesic soil conditions, which generally results in a shift from upland forest communities to slope communities. This increase in soil moisture is reflected in the shift from longleaf pine to loblolly pine and shortleaf pine. The species composition of oaks also shifts, with Southern red oak dominating on the upper slopes and white oak (*Quercus alba*) dominating on the wetter, lower slopes. Other significant hardwood species include Southern magnolia (*Magnolia grandiflora*) and American Beech (*Fagus grandiflora*).

Four vegetation types, Floodplain Hardwood Pine Forest, Floodplain Hardwood Forest, Wetland Baygall Shrub Thicket, and Swamp Cypress Tupelo Forest, generally occur along the river and creek floodplains throughout BTNP. The Floodplain Hardwood Pine Forest type generally grows along smaller floodplains, where the transition from terrestrial to

aquatic environments occurs over a relatively short distance. Dominant pine and hardwood species in this vegetation type are loblolly pine and American beech. Moving from lower order to higher order streams, the floodplains increase in size and transition to Floodplain Hardwood Forest communities. Dominant tree species in this type include sweetgum (*Liquidambar styraciflua*) and water oak (*Quercus nigra*). Swamp Cypress-Tupelo Forest is found in secondary river and creek channels and along the fringe of oxbow lakes and sloughs throughout the floodplain forests of BTNP. As the name implies, the dominant tree species are baldcypress (*Taxodium distichum*) and tupelo (*Nyssa aquatica*).

The Texas Natural Heritage Program maintains a list of rare plant communities in the state. Eight rare plant communities are known to occur within BTNP (TPWD 2012). These include the following: Texas Upper West Gulf Coastal Plain Southern Magnolia Forest; West Gulf Coastal Plain Beech - Magnolia Forest; West Gulf Coastal Plain Catahoula Sandstone Glade; West Gulf Coastal Plain Beech-Magnolia Forest; West Gulf Coastal Plain Forested Seep (Southern Type); West Gulf Coastal Plain High Terrace Wooded Flatwoods Pond; West Gulf Coastal Plain Shallow Flatwoods Pond; Western Upland Longleaf Pine Forest (Stream Terrace Sandy Woodland Type); and Western Wet Longleaf Pine Savanna (Prairie Terraces Acidic Silt Loam Type).

There are 39 non-native species known to occur in BTNP with 14 ranked as high impact and 9 ranked as high/medium impact (Gulfcoast Network 2010). NatureServe in cooperation with NPS and the Nature Conservancy evaluated and assigned an invasive species impact rank based on the non-native species impact to native species and natural biodiversity. Terrestrial invasive plant species found in BTNP include, but are not limited to Chinese tallow (*Triadica sebifera*), Chinese privet (*Ligustrum sinense*), slash pine, deep-rooted sedge (*Cyperus entrerianus*), and mimosa (*Albizia julibrissin*). Other invasive plant species in BTNP include, but are not limited to the Japanese climbing fern (*Lygodium japonicum*), Japanese honeysuckle (*Lonicera japonica*), Chinese wisteria (*Wisteria sinensis*), Chinaberry (*Melia azedarach*), and Coral ardisia (*Ardisia crenata*).

The preferred alternative would result in minor, short-term, and localized adverse impacts with moderate beneficial impacts and a net long-term positive effect as fire-dependent ecosystems and plant communities are restored to the landscape. Because major adverse impacts are not anticipated to occur under the preferred alternative, the proposed action will not result in impairment to vegetation resources.

Wildlife— The abundant and diverse vegetation in BTNP supports aquatic and terrestrial habitat for a variety of fish and wildlife species. BTNP provides habitat for plant and animal species of the southeast swamps, pineywood forest, post-oak belt, great plains, southwest deserts, and the coastal prairie. BTNP consists of nine land units connected by six narrow water corridor units. The water corridor units, varying in width from 1,000 to 1,500 feet, were established in part to offset the effects of fragmentation by providing ecological connectivity between otherwise isolated units. There are approximately 60 species of mammals, 176 bird species, 85 species of reptiles and amphibians, 92 fish species, and 1,800 invertebrate species.

The preferred alternative would result in minor, short-term, highly localized adverse impacts to wildlife resources but result in moderate, long-term beneficial impacts with a net positive effect. Because major adverse impacts are not anticipated to occur under the preferred alternative, the proposed action will not result in impairment to wildlife resources.

Special Status Species—The federally listed or candidate species with potential ranges within BTNP are the red-cockaded woodpecker, Louisiana black bear, Louisiana pine snake, Navasota Ladies' Tresses, and the Texas trailing phlox. The State of Texas has listed and protects an additional 8 bird species, 3 fish species, 2 additional mammals, 4 reptile species, 1 amphibian, 6 mollusk species, and no additional plant species that do or could occur in the 7 counties encompassing BTNP. Additional details on each of these species were included in the Big Thicket National Preserve Fire Management Plan/EA. Special considerations for birds protected by the Migratory Bird Treaty Act will also be covered in this FONSI as outlined in the Errata.

The preferred alternative would result in no more than moderate, long-term, localized beneficial effects as critical habitat is restored. Because major adverse impacts are not anticipated to occur under the preferred alternative, the proposed action will not result in impairment to special status species.

Water Resources—Water is one of the most pervasive resources in BTNP with four of the 15 management units being river or stream corridor units and most units are adjacent to or include third-order perennial streams. In addition to the major streams or river reaches, BTNP contains a variety of minor hydrologic features—floodplains, sloughs, oxbows, baygalls, acid bogs, and low-order tributary streams. First order streams are the smallest streams or tributaries that do not have water flowing into them. Second order streams have one or more first order tributaries flowing into them. The Neches is a third order stream, as it receives water from second order tributaries. The origin and occurrence of all water resources is affected by surface and subsurface geology.

Major Drainages

All units of BTNP are located within the watershed or basin of the Neches River, except for the Menard Creek Corridor Unit, which is in the Trinity River basin. Both of these drainage basins trend from northwest to southeast and have gentle slopes with channels that meander from their headwaters to the Gulf of Mexico. The Neches and Angelina Rivers constitute the two major rivers within the Neches River basin. The mainstem Neches River headwaters are located in northeast Texas, in Van Zandt, Smith, and Henderson Counties. The Angelina River originates in Smith and Rusk Counties.

The Neches River basin is roughly 200 miles long by 50 miles wide, and drains an area of approximately 10,000 square miles. Major tributaries to the Neches within BTNP are Big Sandy Creek/Village Creek, Turkey Creek, Pine Island and Little Pine Island Bayous, Hickory Creek, and Beech Creek. The Trinity River basin drains approximately 18,000 square miles, encompassing parts of 34 counties before entering the Gulf of Mexico through Trinity Bay and Galveston Bay (TNRCC 1996). Menard Creek is the only major tributary to Trinity River

within BTNP. The drainages generally follow dendritic patterns, which are indicative of horizontal or near horizontal bedrock and gentle sloping topography.

Minor Hydraulic Features

The surface water network in all management units consists of unnamed creeks, sloughs, acid bogs, and baygalls that greatly affect the hydrology and hydrochemistry of the surface and near-surface groundwater developments. Baygalls occur in depressions formed by abandoned channels on terraces. In BTNP, baygalls frequently occur in relatively lower depression areas, where water stands for much of the year (e.g., Lance Rosier Unit). Additionally, baygalls may form at the contact of two geologic formations with differing hydraulic properties. Baygalls accumulate a large amount of organic debris, which results in water that is high in organic acids, low in dissolved oxygen and exhibit low pH values.

Similarly, sloughs channel and capture water. Sloughs occur within active floodplains, thus are subject to a greater degree of hydrologic exchange with mainstem drainages. In addition to the periodic input of floodwaters, sloughs may receive sediments during floods. Water quality in sloughs can vary from that observed in the mainstem watercourse to that of baygalls depending on the elapsed time between flood events.

Acid bogs generally form at locations where terrace-level tributary streams enter a main drainage. The loss in gradient from terrace to active floodplain results in sediment deposition, long-term aggradation, and shifting channels. Acid bogs are subject to the same water quality controls as baygalls and consequently exhibit low pH waters with organic acid turbidity and low dissolved oxygen. Additionally, acid bogs may be subject to flooding due to their location in floodplains. Acid bogs are similar to baygalls in plant species composition. The Texas Commission on Environment Quality (TCEQ) and US Environmental Protection Agency (EPA) has identified approximately 141.7 miles of streams as a 303(d) listed reaches (Turkey Creek, Big Sandy Creek, Beech Creek, Little Pine Island Bayou, Village Creek, Cypress Creek, and Booger Branch). The reasons for 303(d) listing is bacteria, low pH, and oxygen depletion. These segments were categorized as 5c, which means additional data information will be gathered before a Total Maximum Daily Load (TMDL) is scheduled. For waters identified as a 303(d) reach, a water quality improvement plan must be developed. The water quality improvement plan known as TMDL establishes allowable pollutant loads set at levels to achieve water quality standards and is the responsibility of the TCEQ and Texas State Soil and Water Conservation Board. The EPA must then approve these plans.

NPS has also divided the major water resources of BTNP into three classes based on a combination of ambient water quality and monitoring status. Category 1 waters are those streams whose water quality presently ranges from very good to excellent. Streams in BTNP included in Category 1 are: Big Sandy Creek, Beech Creek, Turkey Creek, and Black Creek (within the Jack Gore Baygall Unit). Category 2 waters are those already exhibiting water quality degradation for one or more parameters, often due to non-point source pollution and/or legally permitted point-source discharges. Streams in BTNP included in Category 2 are Little Pine Island Bayou and Menard Creek. Category 3 waters are those major stream segments within BTNP, which are included in the Texas Surface Water Quality Standards (2010) and are routinely monitored by the USGS. Category 3 stream segments that flow

through BTNP are the Neches River, from Town Bluff Dam to the tidal zone (Beaumont Unit area) and Pine Island Bayou.

The preferred alternative would have minor, short-term, and localized adverse effects and direct minor, long-term positive impacts. Because major adverse impacts are not anticipated to occur under the preferred alternative, the proposed action will not result in impairment to water quality and quantity.

Riparian/Wetlands– Approximately 40% of BTNP is comprised of wetlands and are classified into three categories based on the Cowardin Classification System: palustrine (31,610 ac.), riverine (3,125 ac), and lacustrine (60 ac.) wetlands. Prescribed fire is not a tool used to manage the associated plant communities. The use of herbicides however is considered necessary to control Chinese tallow and other exotics that continue to invade these native habitats. No overspraying or treatments of invasive aquatic plants growing in open water will occur under this EA.

The preferred alternative would have minor, short-term, and localized adverse impacts on floodplains and wetlands, with minor, long-term beneficial impacts. Because major adverse impacts are not anticipated to occur under the preferred alternative, the proposed action will not result in impairment to floodplain and wetland resources.

Cultural and Historic Resources– In addition to the natural diversity BTNP protects a rich, unique cultural record of prehistoric and historic sites. To date, not all of BTNP has been surveyed for cultural resources. Prehistoric sites in east Texas are divided into three temporal periods: Paleoindian sites from 8,000-6,000 BC; Archaic sites from 6,000 BC to AD 100; and Late Prehistoric sites from AD 100-1500. They include shell middens, temple mounds, burial mounds, and surface artifacts (i.e., metal, ceramic, stone). Historic sites are associated with the 19th century homesteading and ranching, late 19th century timber industry activities, and the boom period of oil and gas development during the early 20th century. They include remains of former homesteads; logging camps and mills; hunting camps; river craft; roads, trails, and traces; ferry crossings; steamboat landings; abandoned communities; and early oil and gas production sites.

The preferred alternative would have minor adverse impacts and direct minor to moderate long-term positive impacts on archaeological and historic resources. Because major adverse impacts are not anticipated to occur under the preferred alternative, the proposed action will not result in impairment to cultural resources.

In conclusion, as guided by this analysis, good science and scholarship, advice from subject matter experts and others who have relevant knowledge and experience, and the results of public involvement activities, it is the Superintendent's professional judgment that there would be no impairment of park resources and values from implementation of the preferred alternative.

**ERRATA SHEET
FIRE MANAGEMENT PLAN ENVIRONMENTAL ASSESSMENT
BIG THICKET NATIONAL PRESERVE**

Changes are indicated by **bold** text.

Page 13, 7)Riparian/Wetlands, change the following sentence:

“Therefore, the topic of riparian/wetlands was retained **from** further analysis.”

to

“Therefore, the topic of riparian/wetlands was retained **for** further analysis.”

Page 32, Wildlife, including Special Status Species, change the following sentence:

“Determination depends on best available knowledge of season, species, and **aviation** habits and behaviors.”

to

“Determination depends on best available knowledge of season, species, and **avian** habits and behaviors.”

Page 32, Invasive Plants and Page 57, Impacts of Alternative 1: No Action Alternative, change the following sentence:

“Whenever possible, incoming vehicles, engines, and equipment from outside the immediate area will be cleaned (including the undercarriage) upon arrival to remove invasive weed seeds.”

to

“~~Whenever possible,~~ incoming vehicles, engines, and equipment from outside the immediate area will be cleaned (including the undercarriage) upon arrival to remove invasive weed seeds.”

Page 33, 2.4 Mitigation Measures during the Proposed Action, Human Health and Safety

Add the mitigation measure, “**Herbicide treatments’ will follow all manufacture’s label guidelines and treatment areas will be closed for no less than 24 hours to mitigate exposure to any visitors that are chemically sensitive.**”

Page 47, Impacts to Alternative 2: Preferred Alternative:

The title should be changed from: “Impacts **to** Alternative 2: Preferred Alternative”

to

“Impacts **of** Alternative 2: Preferred Alternative”

Page 66, 3.3.5 Special Status Species

A sentence is added at the end of the first paragraph noting that **“Protection of bird species protected under the Migratory Bird Treaty Act of 1918 will also be considered during any and all proposed fuel treatment actions. Monitoring and mitigative measures will be included in planning documents for actions occurring during a period that could impact a MBTA protected species.”**

SUBSTANTIVE COMMENTS

(From the Lone Star Chapter of the Sierra Club, the Nature Conservancy, Texas Conservation Alliance, and Dave McHugh)

Number	Substantive Comment	NPS Responses
1	Page 7, 1.2.2 Need, first sentence , change “their FMP” to “its FMP”.	Non -substantive
2	Page 13, 7) Riparian/Wetlands , the DFMPEA states “Therefore, the topic of riparian/wetlands was retained from further analysis.” The Sierra Club assumes that the NPS meant “retained for further analysis.”	Yes, we did mean for further analysis. Make changes in errata sheet.
3	Page 13, 8) Invasive Species , the DFMPEA should discuss Executive Order 13112, Invasive Species , what this document requires NPS to do, and how this document has been used to shape this proposal. The public must have this information so that it can review, comment on, and understand the proposal.	The discussion of the invasive species Executive Order is outside the scope of this EA. BTNP’s Resource Management Division coordinates treatments of exotic plant species with the NPS Gulf Coast Exotic Plant Management Team.
4	Page 16, 1) Floodplains , the DFMPEA states that “Historically, fire was a natural process that occurred every 3-10 years”. The NPS should state clearly what vegetative ecosystems this statement applies to. All vegetative ecosystems in BTNP should be listed and the estimated historical fire frequency listed for each of them. For instance, the DFMPEA should state what size is the area that the NPS uses when having a fire burn frequency of every 3-10 years. The DFMPEA should state whether this 3-10 year fire frequency applies only to uplands or does it include slopes and stream-side areas and what fire frequencies these different topographically placed ecosystems have. The public must have this information so that it can review, comment on, and understand the proposal. The DFMPEA states that “Limited prescribed fire and targeted herbicide treatments would not affect floodplain values; the topic of floodplains was dismissed from further analysis.” Since prescribed burns can and do burn into floodplains and kill or wound vegetation and therefore changes composition the Sierra Club disagrees with the NPS’s dismissal of floodplains as an impact topic. The public must have this information so that it can review, comment on, and understand the proposal.	Ignition of Rx fires and active fuels treatment areas are restricted to the upslope/upland ecosystems. We allow fire to naturally move downslope and into the floodplains. Typically we do not see fire activity in the floodplains during prescribed burn conditions except during drought conditions, where we would not be actively lighting fires. The fire return interval of 3-10 years includes an average from upland pine and mixed pine-oak vegetation types. Historically, fire was a natural occurrence in floodplain ecosystems, and we do not desire to impact floodplains with firelines during prescribed burns, which is why it was dismissed from further analysis. We disagree with the Sierra Club’s desire to retain floodplains as an impact topic, as fire is a natural disturbance in this ecosystem and we are not implementing any plans to alter floodplains with fire lines, ignition operations, mechanical, or chemical treatments. We considered the impacts of fire in the floodplains and did not feel it exceeded beyond minor impacts.
5	Page 17, 6) Soundscape Management , logging which NPS allows in some instances also negatively	NPS is not proposing any logging operations in this EA.

	<p>impacts the soundscape. The public must have this information so that it can review, comment on, and understand the proposal.</p>	
<p>6</p>	<p>Page 19, 2.1 Alternative 1: No Action Alternative – Continue Current Fire Management Activities and pages 46, 57, 63, 71, 72, 73, 83, 88, 92, 96, 100, and 104, the NPS biases its entire National Environmental Policy Act (NEPA) analysis in the DFMPEA by insisting that Alternative 1 (or a similar statement) results in “The inability to utilize herbicides to limit brush competition would greatly reduce the number of acres of altered timber company lands successfully restored to longleaf pine and hider restoration and maintenance of other unique vegetation areas that are being taken over by brush ... Preventing targeted herbicide application in combination with mechanical, manual, and/or prescribed burn treatments would make establishment of understory native grasses and wildflowers within fire-adapted ecosystems more difficult and require more time to accomplish, (decades, and continue the retention and increased density of invasive mid-story brush due to re-sprouting after treatments ... It would also allow the retention and buildup of hazardous fuels in critical areas immediately adjacent to communities or infrastructure, which may allow wild-land fires to burn with more severity, and be more difficult to control. These wildfires would threaten visitors, adjacent communities ...”.</p> <p>This statement is misleading and inaccurate. In fact, the Sierra Club believes that this statement is a “red herring” and acts as a distraction from what is accurate. Page 2 of the DFMPEA states “In some areas of dense mid-story vegetation, brush was controlled by targeted herbicide application in conjunction with mechanical treatments, allowing native species to establish ...”.</p> <p>Page 19 of the DFMPEA states “... but herbicide use would not be utilized in ecological restoration, maintenance or hazard fuel reduction activities unless separate project specific NEPA processes occurred.” NPS in these two statements admits first that it can and has used herbicides in Alternative 1. However, then NPS makes the inaccurate and false statement that there would be “The inability to utilize herbicides”. The Sierra Club objects strongly to this biased portrayal of Alternative 1.</p> <p>NPS states that using Alternative 1 will take additional</p>	<p>NPS is not biased in the statements regarding alternative 1. It is clearly stated that alternative 1 excludes the use of herbicide, without a separate project NEPA document. This EA considers the use of herbicide for the fire management program to achieve fuel management and restoration goals on a programmatic level. In order to achieve objectives in reducing midstory brush and reestablishing a grassy herbaceous understory, herbicide use is necessary to ensure mortality of stems, as fire and mechanical treatments are limited to only top-killing brush which quickly resprouts following treatments. The comment regarding decades of delay in management is founded on NPS projects at Big Thicket. The Hickory Creek Savanna unit was prescribed burned from 1982-2002, however 12 foot high yaupon still remained along the boundary between Big Thicket and the community of Wildwood. The mechanical and herbicide treatments conducted within that unit aided restoration by reducing these fuels along the wildland urban interface. After the fuels were treated mechanically and chemically, and followed up with a prescribed burn, grasses responded in the understory. To achieve these results with fire alone could have taken decades to accomplish, as often times prescribed fire conditions are not intense enough to cause direct mortality to midstory brush. Our statements regarding restoration are founded on current literature and management practices, in addition to decades of experience of prescribed burning at BTNP.</p> <p>We disagree on a bias on alternative 1, and we are clear and accurate in stating that this alternative would result in the inability for the Big Thicket Fire Management Program to use herbicides, as compared to alternative 2 which allows the use of targeted herbicide application. The current EA has created a no action alternative based on current policy and guidelines, not based on past actions.</p>

<p>“decades” to restore the longleaf pine ecosystem but then provides no documentation for this statement. If NPS works efficiently then the delay in preparing NEPA documents can be minimized as this DFMPEA shows. In fact, as has been done in the Hickory Creek Savannah Unit, all of one unit or multiple units can be combined into one NEPA document. The only ecosystem that NPS mentions repeatedly in this DFMPEA for restoration is the longleaf pine ecosystem. A single NEPA document could be prepared for all areas throughout the BTNP where NPS wants to restore longleaf pine. Or a single NEPA document which addresses all upland areas that need fire could be prepared. These NEPA actions do not need to take, or delay actions, for “decades”. NPS must not bias the alternatives so that it can favor one over another. NEPA, under the President’s Council on Environmental Quality’s (CEQ) regulations, states clearly in Section 1502.14 that “This section is the heart of the environmental impact statement ... it should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public ... Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.”</p> <p>NPS has provided misleading statements about Alternative 1 so that no fair comparison of alternatives is possible. If delays for NEPA document preparation/process occur then the NPS can quantify these delays. But NPS must also fairly show the benefits of NEPA document preparation/process via the education and information that the public gets about the proposal and the provision of an opportunity for public input, review, and comment. NPS casts Alternative 1 in the most negative light possible. NPS appears to blame an important public process for NPS’s slowness to burn more acres in BTNP.</p> <p>This is particularly puzzling and does not make sense because on page 24 of the DFMPEA NPS admits that “The preserve fire staff estimates that they could accomplish 200-400 acres of longleaf restoration treatment per year utilizing targeted herbicide for the initial restoration treatment, although shrinking funding and staffing constraints may further limit that estimate ... The maximum expected Preserve acreage that could be spot treated with herbicide is estimated at 500 acres per year. This is most likely an overestimate for most years, but will serve the purposes of this analysis.” So in other words, 500 acres out of the 64,924 acres of uplands/slopes/Longleaf Pine ecosystems that NPS wants to burn and or herbicide at some point, or 0.77% of the 64,924 acres, makes Alternative 2 superior than Alternative 1. These figures don’t add up</p>	<p>We disagree that the statements about the alternatives are misleading and inaccurate. The EA refers to delays in meeting restoration objectives not delays in NEPA process.</p> <p>NPS did not cite an acreage of 64,924 acres of upland/slopes/Longleaf Pine</p>
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	<p>or make sense. How could the treatment by herbicides of less than 1% of the acreage that needs to be burned make Alternative 2 so much better than Alternative 1? The NPS does not provide the public with the information that documents this assertion. NPS has not met its burden of proof that Alternative 2 is superior than Alternative 1.</p> <p>If NPS cannot accurately quantify these delays, if in fact there are delays, then it is required, if the information does not exist to make projections and calculations of delays and environmental impacts and the information cannot reasonably be obtained, by CEQ, under Section 1502.22, to either develop the analysis that provides this information or state what specific information is missing and why it cannot be generated. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>ecosystems, as this acreage is inaccurate. The ecological benefits of herbicide use for restoration are discussed throughout the document. The assessment of vegetation types, acreage, and treatment regimes will be addressed in the fire management plan. This EA is to support the use of management tools and not to delineate a framework for restoration treatments.</p>
<p>7</p>	<p>Page 19, 2.1 Alternative 1: No Action Alternative – Continue Current Fire Management Activities and pages 20, 21, 23, 24, 26, 27, 28, 34, 35, 37, 38, 39, 57, 61, 63, 65, 71, 72, 75, 79, 80, 84, 85, 89, 92, 93, 97, 101, 102, 104, and 105, the words or phrases “ecological restoration”, “successful ecological restoration efforts”, “more effective ecological restoration program”, “would not be reasonably successful in achieving project restoration objectives”, “Increased successful ecological restoration efforts”, “effective ecological restoration”, “larger scale ecological restoration”, “restoration treatments”, “restoration and maintenance of the longleaf pine vegetation alliance”, “longleaf restoration treatment”, “restoration area”, “return vegetation communities to the range of natural variation”, “restoration prescriptions”, “ecosystem restoration”, “restoration thinning”, “restoration tool”, “restore fire-adapted ecosystems”, “ecological restoration activities”, “ecological restoration efforts”, “restoration activities”, “restoring fire-adapted vegetative habitats”, “More successful ecological restoration”, “restoring longleaf pine ecosystems”, “historically fire-maintained vegetation associations”, “accelerate ecological restoration goals”, “successfully restored to longleaf pine”, “could reduce the success of ecological restoration efforts”, “sufficient ecological restoration”, “successful restoration”, “would increase the success rate of ecological restoration”, “successful restoration”, “restored successfully”, “increased ecological restoration success rate”, “restoring the native vegetation structure, composition, and function of historically fire-maintained vegetation associations”, “increased success rate of ecological restoration”, “restore fire-adapted ecosystems”, and “successful restoration opportunities” are used.</p> <p>There is no glossary which defines what these words or phrases or any other words or phrases mean and how</p>	<p>We disagree. NPS used common standard dictionary terms, not jargon, and these words do not require definition.</p> <p>This EA is to support the treatments used by the fire management program, a</p>

	<p>they relate to the DFMPEA. The DFMPEA should state what the goals of ecological restoration are, how efforts, opportunities, objectives, prescriptions, treatments, areas, and activities differ, what the ecological restoration program is, how ecological restoration will be more effective and successful, how fire plays a role in larger scale ecological restoration, what is the range of natural variability for each ecosystem that will be burned, how longleaf pine restoration will be deemed successful, what are acceptable success rates for restoration, how fire-adapted habitats, ecosystems, and vegetation alliances differ or are the same, etc. It is not clear how ecological restoration fits into the DFMPEA. The DFMPEA should state why it is not part of an ecological restoration plan. The public must have this information so that it can review, comment on, and understand the proposal.</p>	<p>restoration plan is outside the scope of this EA.</p> <p>Again, this is a Fire Management Plan EA, not an ecological restoration EA. Ecological restoration is beyond the scope of the current project.</p>
<p>8</p>	<p>Page 19, 2.1 Alternative 1: No Action Alternative – Continue Current Fire Management Activities and pages 35, 37, 39, 40, 51, 57, 63, 64, 71, 72, 73, 74, 79, 80, 84, 85, 88, 89, 92, 93, 96, 100, 101, 104, and 105, state or say in similar words, “It would also allow the retention and buildup of hazardous fuels in critical areas immediately adjacent to communities or infrastructure which may allow wild-land fires to burn with more severity, and be more difficult the control. These wildfires could threaten visitors, adjacent communities” with regard to Alternative 1 and important natural resources in BTNP.” The NPS fails to provide information about the magnitude of this increased risk, how often this risk would occur, what is the risk now, what is the potential for increased high intensity wildfires, what is the potential for more intense wildfires, and what is a “significant fuel hazard”. In addition, there is no acknowledgement that this risk also exists for Alternative 2, particularly during dry years. In 2011, it was evident that fire was potentially possible in almost all parts of BTNP no matter what or where management had occurred (including prescribed burning). If NPS cannot accurately quantify the risk then it must, if the information does not exist to make projections and calculations of risk and the information cannot reasonably be obtained, as required by CEQ, under Section 1502.22, either develop the analysis that provides this information or state what specific information is missing and why it cannot be generated. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>The fuels management program prescribed fuels treatments in areas of high fire frequency, heavy fuel loading, and values at risk. It is impractical and impossible to treat all hazard fuels within BTNP. Fuels treatments are prioritized to treat the areas with the highest potential to threaten values at risk. Professional judgment, fire occurrence data, and computer models for fire behavior are used in determining priorities for treatment.</p>
<p>9</p>	<p>Page 20, 2.1 Alternative 1: No Action Alternative – Continue Current Fire Management Activities, NPS mentions “biomass removal”. The Sierra Club is concerned that NPS will remove wood and sell it to a biomass plant. The Sierra Club does not favor removal</p>	<p>Biomass removal should remain an option as leaving an exceedingly high fuel load of woody biomass on the ground and then following up with a burn could result in complete mortality of remaining overstory</p>

	of important nutrient, organic matter, and wildlife habitat for such purposes. Prescribed burning or allowing the wood to decay naturally is a better option. The public must have this information so that it can review, comment on, and understand this proposal.	trees, soil sterilization, and overall loss of habitat. This option will be considered only to benefit ecosystem health and not as a means to generate revenue.
10	Page 20, 2.2 Alternative 1: NPS Preferred Alternative – Utilize Herbicide as Additional Treatment Tool , this heading is misleading, as mentioned above, because Alternative 1 already allows NPS to use herbicides as an additional treatment tool. NPS should correct this misleading heading. The public must have this information so that it can review, comment on, and understand this proposal.	We disagree, alternative 1 does not allow the use of herbicides for the fire management program, as clearly stated throughout the document. The current no-action alternative 1 is based on current policy and guidelines, not on past actions.
11	Page 20, 2.2 Alternative 1: NPS Preferred Alternative – Utilize Herbicide as Additional Treatment Tool , the DFMPEA states “some hazardous fuel reduction activities”. The DFMPEA should state how many acres or a percent of total acres will be burned for “hazard fuel reduction” and where this will occur (maps of units). The public must have this information so that it can review, comment on, and understand this proposal.	This EA is to provide the treatment tools for the fire management program and not to outline projects with acreages and maps.
12	Page 20, Page 20, 2.2 Alternative 1: NPS Preferred Alternative – Utilize Herbicide as Additional Treatment Tool and pages 27 and 28, Alternative 5 , the Sierra Club is concerned that NPS does not believe that lightning or human started fires should be allowed to burn for ecological purposes. It appears that NPS wants to put all of these fires out. That should not be. NPS should develop prescriptions in this DMPEA that allow these fires to burn and implement these prescriptions whenever possible. The DFMPEA should define and discuss what an “uncontrollable, stand-replacing fire” is, what species and communities may be lost, what an “unlimited natural fire” is, and what “restoration thinning” is. The Sierra Club supports the use of lightning and human set fires, under certain prescriptions, to accomplish ecological purposes that are related to burning. The NPS should use its “flexibility” to use natural and human set fire rather than hamstringing itself and limit the use of lightning or human set wildfires for ecological purposes. The public must have this information so that it can review, comment on, and understand this proposal.	Big Thicket National Preserve considers allowing natural fires for resource benefit, however our administrative boundary does not allow for landscape scale natural fire management. When natural and man-made barriers are available, NPS will utilize those fire breaks rather than direct suppression tactics. NPS used common standard dictionary terms, not jargon, and these words do not require definition.
13	Page 20, Page 20, 2.2 Alternative 1: NPS Preferred Alternative – Utilize Herbicide as Additional Treatment Tool , the DFMPEA should provide information and a map about where the uplands and slopes in each unit are located that will be affected by this plan. The public must have this information so that it can review, comment on, and understand this proposal.	This EA is to provide the treatment tools for the fire management program and not to outline projects with acreages and maps.

<p>14</p>	<p>Page 20, 2.2.1 Scope and Details related to Herbicide Treatment Techniques, the Sierra Club is concerned about the use of foliar spray because of the drip potential of the herbicides on the ground and on non-target vegetation. The Sierra Club prefers to use of herbicide on the cut surface and hand pulling for those plants where this cannot be done so that any herbicide drip or overspray is minimized. The public must have this information so that it can review, comment on, and understand this proposal</p>	<p>Basal bark application on cut stems of vegetation will be the preferred method of herbicide application, however foliar applications methods should be available in dense stands of vegetation. Foliar application methods are commonly used by the NPS to treat exotic and invasive species and applicators are required to follow all label directions, NPS regulations, and guidelines. Big Thicket would only foliar spray with hand application methods, therefore overspray potential will be minimal.</p>
<p>15</p>	<p>Page 21, 2.2.1 Scope and Details related to Herbicide Treatment Techniques, the DFMPEA states "decreasing opportunities for stand replacing crown fire". Stand replacing crown fires are not bad for a forest and are a part of the continuum from high frequency, creeping ground fires to stand replacing crown fires. Although stand replacing fires probably did not occur very often they are not un-natural or uncharacteristic of fire that existed in the BTNP pre-settler days. Such fires would probably have occurred during significant droughts and be analogous to periodic but long frequency windstorms and similar large scale ecological disturbances. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>NPS understands the dynamics of stand replacement crown fires, and their occurrence in the past, however current fuel conditions are very different from pre-settlement conditions as the midstory vegetation has encroached in the absence of frequent low intensity fire. Furthermore, the fragmented boundary of BTNP does not allow for the safe management of crown fires.</p>
<p>16</p>	<p>Page 21, 2.2.1 Scope and Details Related to Herbicide Treatment Techniques, pages 65 and 66, Impacts to Alternative 2: Preferred Alternative, and page 75, Impacts to Alternative 2: Preferred Alternative, the DFMPEA states "Approved herbicides must have undergone EPA environmental and toxicological testing ... thus have low levels of direct toxicity to animals and when used in accordance with the label specifications pose little risk to wildlife. Herbicides commonly used for vegetation management also degrade quickly upon entering the environment and thus are neither persistent nor bioaccumulate ... thus have low levels of direct toxicity to animals and pose little risk to wildlife". Many problems with pesticides have occurred since EPA took over responsibility in the 1970's and have shown that pesticides are not safe even if approved by EPA. The DFMPEA should state quantitatively what the terms "degrade quickly", "neither persistent nor bioaccumulate", "low levels of direct toxicity", and "pose little risk to wildlife" mean. The public must have this information so that it can review, comment on, and understand this proposal. The Sierra Club submits the following documents that demonstrate that EPA approved does not mean safe. NPS should discuss this reality and not give the public</p>	<p>NPS will only use products approved by the regional Integrated Pest Management Coordinator. This document does not cite a specific herbicide, in order to be able to use the most environmentally preferred product available and appropriate chemical for treated species and habitat, therefore we cannot quantify specific measurements.</p>

	<p>the impression that EPA registration means that herbicides are okay. There is a reason that people are advised to stay out of areas where herbicides have been sprayed. The public must have this information so that it can review, comment on, and understand this proposal.</p> <ol style="list-style-type: none"> 1. Are Inert Ingredients in pesticides Really Benign? 2. Does Government Registration Mean Pesticides Are Safe? 3. But that pesticide is registered by the EPA! 4. Why No One Can Say Pesticides Are Safe 5. No Guarantee of Safety 6. Is EPA Registration a Guarantee of Pesticide Safety? 7. Are Pesticides Hazardous to Our Health? 8. Worst Kept Secrets: Toxic Inert Ingredients in Pesticides 	
17	<p>Page 22, 2.2.1 Scope and Details related to Herbicide Treatment Techniques, NPS states that there is a fire effects monitoring program. The DFMPEA should tell the reader what the fire effects monitoring program has found. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>Findings of the fire effects monitoring program are outside the scope of this EA.</p>
18	<p>Page 22, 2.2.1 Scope and Details related to Herbicide Treatment Techniques, NPS states that herbicides are the most effective method of removing or reducing exotics plants. The Sierra Club believes that this statement is too simplistic. In dry, upland areas, burning is more effective at killing, wounding, or setting exotic plants back. In more mesic or hydric areas this does not appear to be the case. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>We disagree. Land managers and researchers throughout the southeast US cite the benefit and effectiveness of herbicide to ensure restoration success in conjunction with fire management.</p>
19	<p>Page 22, 2.2.1 Scope and Details related to Herbicide Treatment Techniques, NPS should define what "holding resources" are. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>Holding resources include the staff and equipment necessary for planned or unplanned ignition in efforts to keep a fire within containment lines.</p>
20	<p>Page 22, 2.2.1 Scope and Details related to Herbicide Treatment Techniques, NPS states "Areas with tall and dense mid-story brush are often very resistant to prescribed fires during mild weather and fuel conditions." The DFMPEA should discuss the need for growing season burns including summer burns. Such burns, which occurred naturally, will kill many hardwood trees when fires during times of milder temperatures will not. NPS must use fires during the season and time of the season when fires used to occur to mimic the natural fire regime and its effects. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>Prescribed burning at Big Thicket National Preserve is not limited to any particular season. The areas we referred to are resistant to fire during mild weather conditions.</p>
21	<p>Page 26, Alternative 4, the DFMPEA states "In addition, the conditions on the ground are changing as vegetation matures, new disturbances such as drought and hurricanes occur, and other natural processes</p>	<p>We dismissed this alternative, as the inclusion of climate change would not make a difference in the decision.</p>

	continue.” The NPS should add climate change to this list which is or may be driving many of these changes. The public must have this information so that it can review, comment on, and understand this proposal.	
22	Page 27, Alternative 4 , the DFMPEA states “This would accelerate the potential to lose sensitive and T&E species”. The DFMPEA should state which sensitive and T&E species may be lost due to the implementation of Alternative 4. The public must have this information so that it can review, comment on, and understand this proposal	Those species most dependent on fire maintained ecosystems would be affected under Alternative 4. Habitat for species such as the red-cockaded woodpecker, and Texas trailing phlox would be negatively affected.
23	Page 27, Alternative 4 , DFMPEA states “Delay would lead to more build-up of hazard fuels that could result in a more flammable environment, which would lead to dangerous, uncontrollable wildfires that could threaten the safety of visitors, employees and nearby residents.” The DFMPEA should provide documentation that these conditions and their aftermath, uncontrollable wildfires, have occurred using the present, Alternative 1, system of fire management because NPS says the same thing about Alternative 1 that it says here about Alternative 4. If this ever was going to happen, 2011 would have been the time it did. However, NPS provides no data or analysis to support its supposition. The DFMPEA should provide the risk of such events happening, how often such events have happened in the past or will happen, and a definition and discussion of what “uncontrollable wildfires” are. The public must have this information so that it can review, comment on, and understand this proposal.	We disagree. The effects of not managing forests with fire has been well documented in the southern US and throughout the country. Henderson (2006) examined the fire history of our past longleaf pine forests and his research was used to support our statements, in addition to other published literature. We used common dictionary terms and do not need to define. A detailed analysis of fire history, frequency, and associated risk is outside the scope of this EA.
24	Page 29, Air Quality and page 46, 3.3.1.4 analysis of Alternatives and Impacts on Air Quality, Impacts of Alternative 1: No Action Alternative , if NPS is going to use this DFMPEA for all of BTNP then it should show for each unit on a map where these sensitive receptors and areas are, describe why they are sensitive, and state the size of the areas that will be managed for their protection. The public must have this information so that it can review, comment on, and understand this proposal.	The identification of sensitive receptors is addressed in the planning of a prescribed burn and these receptors are described by the outdoor burning regulations of TCEQ.
25	Page 30, Soils , the DFMPEA should define and explain what “mastication” is, where it will be used, and under what limits it will be used so that its negative impacts are limited. The public must have this information so that it can review, comment on, and understand this proposal.	NPS used common standard dictionary terms, not jargon, and these words do not require definition.
26	Page 30, Soils , the DFMPEA should define and explain what “Reasonable procedures” are, where they will be used, and under what limits they are used so that negative impacts are limited. The public must have this information so that it can review, comment on, and understand this proposal.	NPS used common standard dictionary terms, not jargon, and these words do not require definition.
27	Page 30, Soils , the DFMPEA should limit the use of UTV’s and similar vehicles, state where they will be	The use of UTV’s is limited, however they are permitted for administrative use with

	used, and state under what limits they will be used so that negative impacts are limited. The public must have this information so that it can review, comment on, and understand this proposal	BTNP.
28	Page 31, Water, Wetlands, and Riparian Resources , the Sierra Club opposes herbicide use within 3 hours of predicted rain. This is not enough time to reduce the danger of herbicides washing off if rainfall occurs and to allow breakdown of herbicide residues. The public must have this information so that it can review, comment on, and understand this proposal.	Herbicide application will be conducted under the guidance of a licensed pesticide applicator. The herbicide will not be sprayed on wet vegetation or when rain is forecasted for the area and all label directions will be followed.
29	Page 31, Vegetation , the DFMPEA should define and explain what "Systematic monitoring" is for herbicide effects measurement, where it will be implemented, the type of monitoring instrument that will be used, what standards will be used, and how long it will last. The public must have this information so that it can review, comment on, and understand this proposal.	Monitoring herbicide treatments is necessary to determine success of treatment. Monitoring will determine percent mortality after treatment. It is outside the scope of this EA to define the system of monitoring for herbicide treatments.
30	Page 32, Wildlife, including Special Status Species , NPS should change the phrase "aviation habits and behaviors" to "avian habits and behaviors". The public must have this information so that it can review, comment on, and understand this proposal.	Errata: Change aviation to avian
31	Page 32, Invasive Plants and page 57, Impacts of Alternative 1: No Action Alternative , NPS should change the phrase "Whenever possible, incoming vehicles, etc. will be cleaned upon arrival ... Potential spread of noxious weed could occur from equipment used by fire crews both on prescribed fire and wildfire work". Except for absolute emergencies all incoming vehicles should be cleaned to reduce invasive species introductions and spread. Otherwise the ecological restoration that the DFMPEA is supposed to achieve will in fact be degraded by the DFMPEA. In addition, page 60, Alternative 2 , should have the same potential spread of noxious weeds impacts from equipment used by fire crews and this should be added as a negative environmental impact as part of the discussion about Alternative 2. The public must have this information so that it can review, comment on, and understand this proposal.	Page 31 of the EA in the Invasive Plants sections states "Incoming vehicles, engines and equipment from outside the immediate area with be cleaned (including the undercarriage) upon arrival to remove invasive weed seeds." Currently all equipment is cleaned before entering a project area, and only in emergencies would cleaning not occur. Errata: Remove "Whenever possible"
32	Page 32, Cultural Resources , the DFMPEA states "Spot monitoring ... will occur by Resource Advisors ... to ensure avoidance of damage to archeological or cultural sites." This same monitoring should be used to avoid damage to ecological and biological sites. The public must have this information so that it can review, comment on, and understand this proposal.	Resource advisors and fire effects monitors help managers avoid damage to cultural and natural resources.
33	Page 34, 2.5 Environmentally Preferable Alternative , the DFMPEA should define and discuss what "restore fire-adapted ecosystems and associated wildlife" means. In addition, what is the "increased risk" for "future high, severity wildfires" if Alternative 1	NPS relies on past fire history data of weather and fire occurrence, and tracks current patterns to assess risk. The future risk of wildfire is uncertain, as it changes with weather patterns and ignition

	<p>is chosen. How many “severe fires” are expected in BTNP, how many “severe fires” have occurred in the past in BTNP, what is the risk today, what will be the risk in the future, how is risk measured, and how is risk monitored? The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>sources. However, NPS has the ability to manage fuels. Assuring midstory vegetation is killed from herbicide treatments will create successful fuel breaks and forest structures that are better able to withstand disturbances not only from fire but from wind events and pest outbreaks.</p>
34	<p>Page 36, Table 2. Methods Each Alternative Uses to Ensure Each Objective Is Met, Objectives, Does the alternative meet project objectives, No Action Alternative, the DFMPEA states “No”. If this is the case then the DFMPEA must state why the NPS, since 2004 (8 years), has used a FMP that does not meet project objectives. This means that NPS has accepted risks to the public and natural resources that are now deemed unacceptable. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>The assessment of alternative 1 not meeting project objectives is an overall assessment and refers to the pervious objectives listed in the table and the draft fire management plan EA. This assessment did not refer to the 2004 Fire Management Plan.</p>
35	<p>Page 42, 3.2 Cumulative Impacts, the DFMPEA states that the “geographic scope for this analysis includes elements within the BITH boundaries.” The geographic scope should include regional impacts that are outside the boundaries of BTNP because these cumulative actions outside BTNP may influence what happens inside BTNP. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>The pervious sentence states “it was necessary to identify other ongoing or reasonably foreseeable future projects at BITH and, if applicable, in the surrounding region.”</p>
36	<p>Page 43, General Management Plan, the DFMPEA states “The following past, present, and current actions were also considered in the analysis of cumulative impacts ... Logging within the Preserve boundary”. Logging near or alongside, but outside of, the Preserve boundary should also be a cumulative action because this logging can affect the density of vegetation that can burn and when cut alongside the BTNP can result in more drying out vegetation in BTNP due to more light thus making it more liable to burn if a fire starts. In addition, the cumulative effects analysis should include roads constructed and operated, maintained, repaired, and replaced outside and inside BTNP, Section 404 permits issued by the Army Corps of Engineers, and air, water, and waste permits issued by the Texas Commission on Environmental Quality (TCEQ). The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>The NPS considered past, present, and planned or proposed projects that might contribute to effects anticipated from the Fire Management Plan. Unplanned or unforeseen actions could not be included in the cumulative effects scenario in the FMP EA.</p>

<p>37</p>	<p>Page 44, 3.3.1.1 Affected Environment, the EPA has recently approved a new particulate matter 2.5, National Ambient Air Quality Standard (NAAQS) of 12 micrograms/cubic meter. The DFMPEA should discuss this new standard and how the DFMPEA will meet it. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>The EPA has recently approved a new particulate matter 2.5, annual health National Ambient Air Quality Standard (NAAQS) of 12 micrograms/cubic meter from the existing annual standard of 15 micrograms/cubic meters set in 1997. However, the EPA retained the secondary standard for particulate matter 2.5—15 micrograms/cubic meters and a 24-hour standard of 35 micrograms/cubic meters ($\mu\text{g}/\text{m}^3$)— to address effects for visibility impairment, ecological affects, damage to materials, and climate impacts. Furthermore, the EPA determined the secondary 24-hour standard of $35\mu\text{g}/\text{m}^3$ will provide visibility protection that is equal to, or greater than, $30\mu\text{g}/\text{m}^3$ (the target level of protection of the EPA) upon further analysis of air quality monitoring data (EPA 2012; http://www.epa.gov/pm/2012/decfsverview.pdf).</p> <p>Prescribed burns should not be impacted by the new annual standard and BTNP would still be in compliance with the retained secondary 24-hour standard.</p>
<p>38</p>	<p>Page 44, 3.3.1.1 Affected Environment, the DFMPEA states “Ambient monitoring ... has not been routinely monitored for the Project Area, but is assumed to be in compliance with the NAAQS.” The NPS must provide documentation about this assertion. According to CEQ Section 1502.22 if information is not available then either the information should be generated or the NPS has to clearly state why this is not possible. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>Ambient monitoring for SO_2, NO_x, O_3, and PM has not been routinely monitored for BTNP, but modeling efforts and estimates generated by NPS and based on regional air quality sites that indicate BTNP is in compliance with the NAAQS (NPS 2009).</p>
<p>39</p>	<p>Page 45, 3.3.1.2 Methodology and Intensity Threshold and pages 49, 50, 56, 62, 63, 70, 78, 83, 87, 91, 94, 95, 99, 103, and 104, the DFMPEA fails to implement the court ruling in favor of the Sierra Club and against the NPS about assessment of impacts and the methodology used, from impairment and NEPA perspectives, which was deemed inadequate, arbitrary, and capricious. United States District Judge John D. Bates stated, in part, in <i>Sierra Club v. Mainella</i> the following:</p> <p>“Because NPS’s impairment analysis served as its NEPA analysis, the flaws in the impairment analysis also apply to the environmental assessment. Those shortcomings</p>	<p>In the opinion on summary judgment in <i>Sierra Club v. Mainella</i>, the Court held that the NPS failed to adequately explain its conclusions. The Court did not direct the NPS to remove conclusions from its analysis. Instead, the Court directed the NPS to prepare a new environmental assessment that provides explanations to support its conclusions. The NPS provided explanations for its conclusions in the EA. For example, before drawing any conclusions in the <i>Affected Environment</i> and <i>Environmental Consequences</i> section of the EA, the NPS</p>

<p>are, first, NPS's lack of explanation as to how it reached its conclusions, typically simply describing the impacts followed by a conclusion that the impact was not an impairment or, in the case of NEPA, that it was not "significant"; and second, the use of the descriptors "negligible", "minor", "moderate", and "major" that are largely undefined or are defined in a manner that includes few objective bounds ... nowhere explained the basis for its conclusion that potentially "moderate" impacts could not be significant under NEPA ... There is no basis in the administrative record for accepting NPS's conclusion that even a "minor" impact is not significant under NEPA, because there are no determinate criteria offered for distinguishing a "minor" impact from a "moderate" or "major" impact other than NPS's conclusory say-so ... the scoping regulations still require the agency to explain why they {dismissed issues} will not have a significant effect on the human environment ... Thus, the EA must provide a realistic evaluation of the total impacts and cannot isolate a proposed project, viewing it in a vacuum ... In short, NPS's three findings of no significant impact are, the court concludes, arbitrary and capricious for many of the same reasons as are the impairment determinations. In each decision, NPS has failed to take a "hard look" at impacts on the Preserve from adjacent surface activities, as evidenced by the lack of explanations supporting its conclusions and, in particular, its methodology of describing impacts using conclusory labels and then setting forth a bare conclusion without explanation as to the significance of an impact. NPS also failed to provide an adequate cumulative impacts analysis that included the other oil and gas operations in the Gore Baygall Unit ... However, NPS's ultimate conclusions that the drilling activities would not result in impairment of park resources and values under the Organic Act, or a significant impact on the human environment under NEPA, are not supported by reasoned explanations, and hence are arbitrary and capricious and an abuse of discretion."</p> <p>NPS must quantify in the DFMPEA the impacts that potentially will occur and its methodology must remove the "conclusory statements" that Judge Bates ruled against. Judge Bates states in his decision that the descriptors "negligible", "minor", "moderate", and "major" are largely undefined or are defined in a manner that includes few objective bounds. These descriptors must be defined with objective bounds. In addition, the NPS must explain the basis for its conclusion that potentially "moderate" impacts are not significant under NEPA or impairment standards. NPS uses conclusory language that is embedded in the definitions for negligible, minor, moderate, and major and in other places in the DFMPEA. These conclusory words or phrases are undefined. Some of the</p>	<p>detailed the sources of possible impacts for each phase of operations, discussed the likely effects of each impact on the resources and values of BTNP, and provided reasoning upon which to base its conclusions regarding the context, duration, timing, and intensity of the impacts.</p> <p>In the EA, the NPS took a "hard look" by considering the direct, indirect, and cumulative impacts of the proposed action on the environment, along with connected, cumulative and similar actions. Impacts were described in terms of context, duration, and timing using four impact intensity threshold definitions (negligible, minor, moderate, major), which are defined for each impact topic in the <i>Affected Environment and Environmental Consequences</i> chapter. If the intensity of an impact could be described quantitatively, the numerical data was presented; otherwise the impacts were described qualitatively.</p> <p>The impact definitions used in the EA are appropriate to Big Thicket National Preserve.</p>
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	<p>conclusory words or phrases that NPS uses in the DFMPEA that are unacceptable include:</p> <ol style="list-style-type: none"> 1. level of detection, page 45 2. small, short-term, localized changes, page 45 3. would be temporary and limited, page 45 4. measurable, localized changes, page 45 5. sensitive resources, page 45 6. would have consequences, page 45 7. would likely be successful, page 45 8. regional changes, pages 41 and 45 9. would have substantial consequences, page 45 10. Extensive mitigation measures, pages 45, 49, 56, 62, 70, 78, 83, and 95 11. success could not be guaranteed, pages 45 and 49 12. would not cause discernible alteration, page 49 13. would be so slight, pages 49 and 94 14. would cause localized or limited alteration, page 49 15. would be simple and successful, pages 49, 56, 62, 70, 78, 83, and 94 16. could be extensive but would likely be successful, page 49 17. would cause substantial alteration, pages 49, 56, and 95 18. would have a lasting effect, page 49 19. some individual native plants would be affected, page 56 20. would be on a small scale, page 56 21. relatively limited portion, page 56 22. Reclamation is readily achievable, page 56 23. sizeable segment, page 56 24. relatively wide area, page 56 25. could be extensive, page 56 26. would likely be successful, page 56 27. Reclamation is achievable, page 56 28. likely requires additional resources to accomplish goals, page 56 29. success would not be guaranteed, page 56 30. Reclamation may not be attainable even with substantial efforts, page 56 31. some individuals could be affected, page 62 32. would be well within natural fluctuations, page 62 33. Some wildlife species would be affected, page 62 34. a limited part, page 62 35. a sizeable part ... would be affected, page 62 36. relatively large area, page 62 37. very localized area, page 70 38. A few individuals, page 70 39. A number of individuals, page 70 40. limited portion, page 70 41. would be extensive and successful, page 70 42. A measurable portion, page 70 43. large portion, page 70 44. relatively large area, page 70 45. would be readily detectable, page 70 	
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<p>46. would be considered slight, page 78 47. would be small, localized, and of little consequence, page 78 48. would noticeably change, page 78 49. severely adverse or major beneficial impact, page 78 50. regional consequences, page 78 51. change would be so slight, page 83 52. change would be small and of little consequence, page 83 53. would be expected to be localized, page 83 54. would be readily detectable, page 83 55. would be extensive and likely successful, page 83 56. would have substantial consequences, page 83 57. barely measurable, pages 87 and 91 58. confined to a small area, page 87 59. would not result in the loss of integrity, page 87 60. Disturbance ... is substantial, pages 87 and 91 61. Disturbance ... is confined to a small area, with little, if any loss, page 91 62. Disturbance ... would not result in the loss of integrity, page 91</p> <p>63. would cause limited localized change, page 94 64. would be consequential, page 95 65. would be relatively local, page 95 66. would likely succeed, page 95 67. would be slight and likely short-term, page 99 68. effects would be slight, page 99 69. would be readily apparent and likely long-term, page 99 70. would likely be able to express an opinion, page 99 71. would be readily apparent and have substantial long-term consequences, page 99 72. would likely express a strong opinion, page 99 73. would not have a noticeable effect, page 102 74. would not have an appreciable effects, page 103 75. few or minor injuries, page 103 76. would have readily detectable impacts, page 103 77. would result in substantial, noticeable effects ... on a local scale, page 103 78. with possible serious injuries, page 103 79. would have readily detectable impacts, page 103 80. would result in substantial, noticeable effects ... on a regional scale, page 103 81. with the possibility of extremely serious injuries, page 103 82. slightly lower emissions, page 47 83. regional effect, page 47</p> <p>All of these conclusory and undefined words and phrases leave the public in a quandary about what the environmental impacts are, what their intensity is, and how different alternatives can be compared and differentiated. The public and decision-makers need this</p>	
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	<p>information clearly stated and transparently presented so that it can be reviewed, commented on, and understood in relation to the environmental impacts of the proposal. The NPS has not implemented Judge Bates' ruling in a convincing and complete manner. The Sierra Club objects to NPS failure fully implement Judge Bates' decision. NPS must not fail to take the "hard look" that Judge Bates told it to do. The public must have this information so that it can review, comment on, and understand the proposal.</p>	
40	<p>Page 47 and 48, Cumulative Impacts, this section fails, but must include, roads and residential development as the cumulative actions that must be analyzed for cumulative impacts. The public must have this information so that it can review, comment on, and understand the proposal.</p>	<p>The NPS considered past, present, and planned or proposed projects that might contribute to effects anticipated from the Fire Management Plan. Unplanned or unforeseen actions could not be included in the cumulative effects scenario in the FMP EA.</p>
41	<p>Page 47, Impacts to Alternative 2: Preferred Alternative, this should read "Impacts of Alternative 2". Since more herbicides will be used the hydrocarbons produced via evaporation must be estimated. The carrier that is used to disperse a herbicide is often a hydrocarbon like diesel oil or mineral oil. One mitigation measure is to eliminate hydrocarbon carriers and require that water be used as the carrier. Only one document is referenced (McMahon and Bush), which is 21 years old, to show that burning herbicides does not create an air pollution problem. A lot has been learned in the past 21 years and the most up-to-date science should be used to document environmental impacts. The public must have this information so that it can review, comment on, and understand the proposal.</p>	<p>Change title in Errata sheet.</p> <p>Over time, the use of herbicide will help reduce the amount of midstory fuels, which will also reduce the amount of smoke during prescribed burn operations. Areas treated with herbicide will not be burned immediately after treatment as time will be needed to allow for the herbicide to effect the vegetation and managers will need time to determine the mortality of the treatment.</p>
42	<p>Pages 53 through 61, 3.3.3 Vegetation, 3.3.3.1 Affected Environment, the DFMPEA fails to provide the location (maps of units) and number of acres for each vegetation community, upland, slope, or bottomland, that may be impacted by this proposal. The only exception is on page 54 where it is revealed that there are 230 acres of Sandhill Pine Forest. The public must have this information so that it can review, comment on, and understand the proposal.</p>	<p>This EA is to provide the treatment tools for the fire management program and not to outline projects with acreages and maps.</p>
43	<p>Pages 58 and 59, Climate Change, the same climate change discussion should be provided under Alternative 2 because both alternatives will be affected by climate change. The DFMPEA fails to address how the proposal will mitigate for its climate change impacts. There are no mitigation measures discussed or proposed to reduce climate change air pollution or protect biological communities.</p> <p>What is needed is climate change ecological resilience and resistance plan (CCERRP) as part of mitigation required for environmental impacts. This CCERRP would assess the biological and ecological elements in the BTNP where this proposal has environmental effects</p>	<p>CCERRP development is outside the scope of the current project.</p> <p>The proposed FMP will indirectly address climate change via best practices on the project level, and implementing Minimum Impact Suppression Tactics standards. Restoring conditions to the longleaf pine forests will help the ecosystem to become more resilient to future changes in climate and the environment including drought, wildfire, pest outbreaks, and wind disturbance.</p>

	<p>and the effects that climate change has had and will have on these biological and ecological elements. The CCERRP would also assist plants, animals, and ecosystems adapt to climate change and would require monitoring of changes and mitigation measure effectiveness. The CCERRP would be based on:</p> <ol style="list-style-type: none"> 1. Protection of existing functioning ecosystems in the area where this proposal has environmental effects. 2. Reduction of stressors on the ecosystems in the area where this proposal has environmental effects. 3. Restoration of natural functioning ecological processes in the area where this proposal has environmental effects. 4. Use of natural recovery in the area where this proposal has environmental effects, in most instances. 5. Acquisition of buffers and corridors to expand and ensure connectivity of ecosystems in the area where this proposal has environmental effects. 6. Intervention to manipulate (manage) ecosystems in the area where this proposal has environmental effects only as a last resort. 7. Reduction in climate change emissions either by use of emissions trading or lower/no emissions technologies. <p>The public must have this information so that it can review, comment on, and understand all the environmental impacts of the proposal.</p>	
<p>44</p>	<p>Pages 66 through 76, 3.3.5 Special Status Species, the DFMPEA states that “NPS policies dictate that federal candidate species, proposed species, and state species of concern are to be managed to the greatest extent possible (please define) as federal-listed endangered and threatened species.” However, the DFMPEA fails to do this. The only species that are analyzed (3.3.5.2 Methodology and Intensity Threshold) for environmental impacts from the DFMPEA are the federal species Red-cockaded Woodpecker, Louisiana Black Bear, Louisiana Pine Snake, Navasota Ladies’ Tresses, and Texas Trailing Phlox.</p> <p>The DFMPEA fails to analyze its impacts (pages 67 and 68), but must do so according to NPS policies, on state listed Bachman’s Sparrow, Bald Eagle, Brown Pelican, American Peregrine Falcon, Reddish Egret, Swallow-tailed Kite, White-faced Ibis, Wood Stork, Blue Sucker, Creek Chubsucker, Paddlefish, Black Bear, Rafinesque’s Big-Eared Bat, Alligator Snapping Turtle, Northern Scarlet Snake, Texas Horned Lizard, Timber Rattlesnake, Houston Toad, Louisiana Pigtoe, Sandbank Pocketbook, Southern Hickorynut, Texas Heelsplitter, Texas Pigtoe, and Triangle Pigtoe. This is a significant oversight and must be addressed. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>In section 3.4.5 Special Status Species, table 5, lists all the state listed species.</p>

45	<p>Pages 72, Louisiana Pine Snake and page 73 Navasota Ladies' Tresses, the DFMPEA should define what a "substantial portion of canopy trees and herbaceous cover" are. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>We have no historical occurrence for Louisiana Pine Snake at BTNP, and currently no habitat suitable for the species. Navasota Ladies' Tresses is only documented in Jasper county and we would not be implementing any fuels management projects in Jasper county.</p>
46	<p>Pages 80, 81, 101, 102, 105, and 106, Cumulative Impacts, these descriptions of cumulative actions are incomplete and deficient. Pages 75 and 76, has a more inclusive list of cumulative actions which can cause cumulative impacts and includes, for instance, "development (residential, urban Preserve buildings)" and "road construction". This list should also include "road operation, maintenance, repair, and replacement" and herbicide run-off impacts. NPS should change the list of cumulative actions to include all that may affect water resources. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>The NPS considered past, present, and planned or proposed projects that might contribute to effects anticipated from the Fire Management Plan. Unplanned of unforeseen actions could not be included in the cumulative effects scenario in the FMP EA.</p>
47	<p>Pages 41, 45, 50, 56, 63, 70, 78, 83, 87, 91, 95, 99, and 104, Duration, no reasoning is provided for why the definition is set for short-term/long-term where it is for these natural resource issues. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>The meaning of short-term and long-term effects refers to each impact topic. The time periods attributed to short- and long-term can be an artificial boundary for the purposes of analysis.</p>
48	<p>Page 84, Impacts of Alternative 1: No Action Alternative, the DFMPEA states "Direct impacts to riparian/wetlands from mechanical and manual fuel reduction treatments due to trampling of riparian/wetland banks or similar disturbances by felled trees". This description is very inaccurate. For mechanical fuel reduction treatments trees are cut and then dragged out by huge tractor powered skidders or feller-bunchers. The compaction and rutting of soils is extensive. A more accurate portrayal of the environmental impacts of logging in riparian/wetlands is needed here. Certainly, the Sierra Club would never state that these impacts are "localized, short-term, adverse, and negligible" when they can be "extensive, long-term, and significant". NPS should never support logging using heavy equipment in riparian/wetland areas. The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>NPS is not proposing any logging operations in this EA, and no planned fuel reduction projects will occur in riparian zones.</p>
49	<p>Page 94, 3.5.1 Adjacent Landowners and Uses, 3.5.1.1 Affected Environment, the DFMPEA states "Approximately 95% of the land uses immediately adjacent to the Preserve are commercial and private forestry." The data used is 15 years old and probably predates the 1997 study date by several years. There has been a tremendous change in the type of forestry that is practiced outside BTNP and the type of entity that practices the forestry. Much of the forest that used to be owned by Temple-Inland, Champion, Louisiana Pacific, and International Paper is now owned</p>	<p>Creating demographic statistics is outside the scope of the current project. The NPS utilized the most current data available.</p>

	<p>by TIMOs (Timber Investment Management Organizations) who are cutting at an increased rate using a rotation age for Loblolly Pine of 25 years. In addition, the intensity of forestry via the use of fertilizers and pesticides has increased. It is feared that these TIMOs will soon operate as REITs (Real Estate Investment Trusts) and cut up and sell-off all the forest land as properties for residential, commercial, and industrial development. These are all cumulative actions/impacts that the DFMPEA fails to discuss or provide information on quantitatively or qualitatively. The public must have this information so that it can review, comment on, and understand this proposal.</p>	
50	<p>Page 102, Impacts to Alternative 2: Preferred Alternative and page 103, 3.6.2.1 Affected Environmental, the DFMPEA talks about "temporary visitor use restrictions" and "Areas treated with targeted herbicide applications would be temporarily closed to the visiting public". If herbicides are as safe as the DFMPEA has states then why the closure? The public must have this information so that it can review, comment on, and understand this proposal.</p>	<p>Your average park visitor is not wearing Personal Protective Equipment as specified by the product label to ensure safety.</p>
51	<p>50) The Sierra Club is disappointed that NPS has chosen not to think outside of the box in this DFMPEA. By this the Sierra Club means that the NPS should do all that needs to be done so that when a lightning fire or human caused fire starts in BTNP that if conditions are met (prescriptions) that that fire is allowed to burn. The Sierra Club understands that BTNP shares boundaries with many private owners. However, this should not be used as an excuse to not take advantage of fire that occurs that BTNP does not set if safety can be assured. Other agencies do this throughout our nation and work with private landowners to burn lands together. There is no reason why BTNP cannot do this too. Where there is a will there is a way. The public must have this information so that it can review, comment on, and understand the proposal.</p>	<p>Comment noted.</p>
52	<p>51) The DFMPEA fails to integrate itself with fire suppression activities. A descriptive narrative of this information should be in the DFMPEA so the public understands the impacts that fire suppression activities have on BTNP. Fire suppression is used when an out-of-control prescribed fire or a natural fire or human caused wild-fire must be put out. Often fire suppression activities cause more environmental damage than the fire. The public must have this information so that it can review, comment on, and understand the proposal.</p>	<p>Fire suppression mitigation measures, including MIST, will be incorporated whenever possible. MIST tactics are guidelines that assist fire personnel in the choice of procedures, tools, and equipment used in fire suppression and post-fire rehabilitation. These techniques reduce soil disturbance, impact to water quality, noise disturbance, intrusions in the wilderness, and cutting or trampling of vegetation.</p>
53	<p>The DFMPEA fails to discuss different areas or units of BTNP and the fire needs of these areas or units. The Sierra Club is particularly concerned about burning appropriately in two areas in the Lance Rosier Unit. The Sierra Club is concerned about these two areas because its has seen a deterioration of fire dependent</p>	<p>Comment noted.</p>

	<p>ecosystems, namely Longleaf Pine Wetland Savannahs and Pitcher Plant Bogs, due to inadequate fire frequency.</p> <p>These two areas include the site near the hunter parking area, on south side of Little Rock Road (Churchhouse Road), where many adult and young non-native invasive Slash Pine trees are located. The Sierra Club would like to see a persistent, concerted, effort by NPS to kill these trees. In addition, routine fire is needed in at this site so that Longleaf Pine Wetland Savannah can be successful restored. Shrubs and other woody vegetation may also need to be removed.</p> <p>The second area is next to the Old Fire Tower Road, about one mile north from its intersection with Little Rock Road, where there is a large pitcher plant bog. This area needs to be burned due to the growth of shrubs and other woody vegetation which is shading out bog plants. In some cases shrubs and other woody vegetation may need to be removed from this area by manual methods.</p>	
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APPENDIX D – Big Thicket National Preserve Enabling Legislation

ENABLING LEGISLATION FOR
BIG THICKET NATIONAL PRESERVE
PUBLIC LAW 93-439,

AS AMENDED BY: P. L. 94-578, P. L. 98-489, AND P. L. 103-46

An Act to authorize the establishment of the Big Thicket National Preserve in the State of Texas, and for other purposes. (88 Stat. 1254) (PL 93-439)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that

(a) in order to assure the preservation, conservation, and protection of the natural, scenic, and recreational values of a significant portion of the Big Thicket area in the State of Texas and to provide for the enhancement and public enjoyment thereof, the Big Thicket National Preserve is hereby established.

(b) the Big Thicket National Preserve (hereafter referred to as the "preserve") shall include the units generally depicted on the map numbered NBR-BT 91,027 which shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior, Washington, District of Columbia, and shall be filed with appropriate offices of Tyler, Hardin, Jasper, Polk, Liberty, Jefferson, and Orange Counties in the State of Texas. The Secretary of the Interior (hereinafter referred to as the "Secretary") shall, as soon as practicable, but no later than six months after the date of enactment of this Act, publish a detailed description of the boundaries of the preserve in the Federal Register. In establishing such boundaries, the Secretary shall locate stream corridor unit boundaries referenced from the stream bank on each side thereof and he shall further make every reasonable effort to exclude from the units hereafter described any improved year-round residential properties which he determines, in his discretion, are not necessary for the protection of the values of the area or for its proper administration. The preserve shall consist of the following units:

Big Sandy Creek unit, Polk County, Texas, comprising approximately fourteen thousand three hundred acres;

Menard Creek corridor unit, Polk, Hardin, and Liberty Counties, Texas, including a module at its confluence with the Trinity River, comprising approximately three thousand three hundred and fifty-nine acres;

Hickory Creek Savannah unit, Tyler County, Texas, comprising approximately six hundred and sixty-eight acres;

Turkey Creek unit, Tyler and Hardin Counties, Texas, comprising approximately seven thousand eight hundred acres;

Beech Creek unit, Tyler County, Texas, comprising approximately four thousand eight hundred and fifty-six acres;

Upper Neches River corridor unit, Jasper, Tyler, and Hardin Counties, Texas, including the Sally Withers Addition, comprising approximately three thousand seven hundred and seventy-five acres;

Neches Bottom and Jack Gore Baygall unit, Hardin and Jasper Counties, Texas, comprising approximately thirteen thousand three hundred acres;

Lower Neches River corridor unit, Hardin, Jasper, and Orange Counties, Texas, except for a one-mile segment on the east side of the river including the site of the papermill near Evadale, comprising approximately two thousand six hundred acres;

Beaumont unit, Orange, Hardin, and Jefferson Counties, Texas, comprising approximately six thousand two hundred and eighteen acres;

Loblolly unit, Liberty County, Texas, comprising approximately five hundred and fifty acres;

Little Pine Island-Pine Island Bayou corridor unit, Hardin and Jefferson Counties, Texas, comprising approximately two thousand one hundred acres;

Lance Rosier unit, Hardin County, Texas, comprising approximately twenty-five thousand and twenty-four acres;

(c) The Secretary is authorized to acquire by donation, purchase with donated or appropriated funds, transfer from any other Federal agency, or exchange, any lands, waters, or interests therein which are located within the boundaries of the preserve: *Provided*, That any lands owned or acquired by the State of Texas, or any of its political subdivisions, may be acquired by donation only. After notifying the Committees on Interior and Insular Affairs of the United States Congress, in writing, of his intention to do so and of the reasons therefor, the Secretary may, if he finds that such lands would make a significant contribution to the purposes for which the preserve was created, accept title to any lands, or interests in lands, located outside of the boundaries of the preserve which the State of Texas or its political subdivisions may acquire and offer to donate to the United States or which any private person, organization, or public or private corporation may offer to donate to the United States and he may administer such lands as a part of the preserve after publishing notice to that effect in the Federal Register. Notwithstanding any other provision of law, any federally owned lands within the preserve shall, with the concurrence of the head of the administering agency, be transferred to the administrative jurisdiction of the Secretary for the purposes of this

Act without transfer of funds.

Sec. 2. (a) The Secretary shall, immediately after the publication of the boundaries of the preserve, commence negotiations for the acquisition of the lands located therein: *Provided*, That he shall not acquire the mineral estate in any property or existing easements for public utilities, pipelines or railroads without the consent of the owner unless, in his judgment, he first determines that such property or estate is subject to, or threatened with, uses which are, or would be, detrimental to the purposes and objectives of this Act: *Provided further*, That the Secretary, insofar as is reasonably possible, may avoid the acquisition of improved properties, as defined in this Act, and shall make every effort to minimize the acquisition of land where he finds it necessary to acquire properties containing improvements.

(b) Within one year after the date of the enactment of this Act, the Secretary shall submit, in writing, to the Committee on Interior and Insular Affairs and to the Committees on Appropriations of the United States Congress a detailed plan which shall indicate:

- (i) the lands and areas which he deems essential to the protection and public enjoyment of this preserve,
- (ii) the lands which he has previously acquired by purchase, donation, exchange or transfer for administration for the purpose of this preserve, and
- (iii) the annual acquisition program (including the level of funding) which he recommends for the ensuing five fiscal years.

(c) It is the express intent of the Congress that the Secretary should substantially complete the land acquisition program contemplated by this Act within six years after the date its enactment.

Sec. 3. (a) The owner of an improved property on the date of its acquisition by the Secretary may, as a condition of such acquisition, retain for himself and his heirs and assigns a right of use and occupancy of the improved property for noncommercial residential purposes for a definite term of not more than twenty-five years or, in lieu thereof, for a term ending at the death of the owner or the death of his spouse, whichever is later. The owner shall elect the term to be reserved. Unless this property is wholly or partially donated to the United States, the Secretary shall pay the owner the fair market value of the property on the date of acquisition less the fair market value, on that date, of the right retained by the owner. A right retained pursuant to this Section shall be subject to termination by the Secretary upon his determination that it is being exercised in a manner inconsistent with the purposes of this Act, and it shall terminate by operation of law upon the Secretary's notifying the holder of the right of such determination and tendering to him an amount equal to the fair market value of that portion of the right which remains unexpired.

(b) As used in this Act, the term "improved property" means a detached, one family dwelling, construction of which was begun before July 1, 1973, which is used for noncommercial residential purposes, together with not to exceed three acres of land on, which the dwelling is situated and together with such additional lands or interests therein as the Secretary deems to be reasonably necessary for access thereto, such lands being in the same ownership as the dwelling, together with any structures accessory to the dwelling which are situated on such land.

(c) Whenever an owner of property elects to retain a right of use and occupancy as provided in this section, such owner shall be deemed to have waived any benefits or rights accruing under sections 203, 204, 205, and 206 of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (84 Statute [Stat.] 1894), and for the purposes of such sections such owner shall not be considered a displaced person as defined in section 101(6) of such Act.

Sec. 4.(a) The area within the boundaries depicted on the map referred to in section 1 shall be known as the Big Thicket National Preserve. Such lands shall be administered by the Secretary as a unit of the National Park System in a manner which will assure their natural and ecological integrity in perpetuity in accordance with the provisions of this Act and with the provisions of the Act of August 25, 1916 (39 Stat. 535; 16 USC 1-4), as amended and supplemented.

(b) In the interest of maintaining the ecological integrity of the preserve, the Secretary shall limit the construction of roads, vehicular campgrounds, employee housing, and other public use and administrative facilities and he shall promulgate and publish such rules and regulations in the Federal Register as he deems necessary and appropriate to limit and control the use of, and activities on, Federal lands and waters with respect to:

- (1) motorized land and water vehicles;
- (2) exploration for, and extraction of, oil, gas, and other minerals;
- (3) new construction of any kind;
- (4) grazing and agriculture; and
- (5) such other uses as the Secretary determines must be limited or controlled in order to carry out the purposes of this Act.

(c) The Secretary shall permit hunting, fishing, and trapping on lands and waters under his jurisdiction within the preserve in accordance with the applicable laws of the United States and the State of Texas, except that he may designate zones where and periods when, no hunting, fishing, trapping or entry may be permitted for reasons of public safety, administration, floral and

faunal protection and management, or public use and enjoyment. Except in emergencies, any regulations prescribing such restrictions relating to hunting, fishing, or trapping shall be put into effect only after consultation with the appropriate State agency having jurisdiction over hunting, fishing, and trapping activities.

Sec. 5. Within five years from the date of enactment of this Act, the Secretary shall review the area within the preserve and shall report to the President, in accordance with section 3(c) and (d) of the Wilderness Act (78 Stat. 891; 16 USC 1132 [c] and [d]), his recommendations as to the suitability or nonsuitability of any area within the preserve for preservation as wilderness, and any designation of any such areas as a wilderness shall be accomplished in accordance with said subsections of the Wilderness Act.

Sec. 6. There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act, but not to exceed \$63,812,000 for the acquisition of lands and interests in lands and not to exceed 7,000,000 for development.

Approved October 11, 1974.

PUBLIC LAW 94-578

An Act to provide for increases in appropriation ceilings and boundary changes in certain units of the National Park System, and for other purposes. (90 Stat. 2732)

Be it enacted by the Senate and House of Representatives of the United States of American in Congress assembled,

TITLE III-MISCELLANEOUS PROVISIONS BIG THICKET NATIONAL PRESERVE

SEC. 322. Section 3(b) of the Act of October 11, 1974 (88 Stat. 1254); 16 USC 698[b]), is amended by deleting "detached, one-family dwelling," and inserting in lieu thereof "detached, year-round one-family dwelling which serves as the owner's permanent place of abode at the time of acquisition."

Approved October 21, 1976.

PUBLIC LAW 98-489

An Act to provide for the acquisition of a visitor contact and administrative site for the Big Thicket National Preserve in the State of Texas. (98 Stat. 2267)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) subsection (c) of the first section of the Act entitled "An Act to authorize the establishment of the Big Thicket National Preserve in the State of Texas, and for other purposes", approved October 11, 1974 (16 USC 698), is amended by inserting after the first sentence the following new sentence: "The Secretary may also acquire, by any of the above methods, approximately 15 acres of land outside of the boundaries of the preserve in the vicinity of the

intersection of United States Highway 69 and State Farm-Market Road 420, in Hardin County, Texas, for purposes of a visitor contact and administrative site.”

(b) Section 6 of such Act is amended by inserting at the end thereof the following new sentence: “Effective October 1, 1984, there is authorized to be appropriated such sums as may be necessary for the acquisition of the visitor contact and administrative site referred to in subsection (c) of the first section of this Act.”

Approved October 17, 1984.

PUBLIC LAW 103-46

JULY 1, 1993

An Act to increase the size of the Big Thicket National Preserve in the State of Texas by adding the Village Creek corridor unit, the Big Sandy corridor unit, and the Canyonlands unit. (107 Stat. 229)

Be it enacted by the Senate and House Representatives the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be referred to as the “Big Thicket National Preserve Addition Act of 1993.”

SEC. 2. ADDITIONS TO THE BIG THICKET NATIONAL PRESERVE.

(a) **ADDITIONS.**-Subsection (b) of the first section of the Act entitled “An Act to authorize the establishment of the Big Thicket National Preserve in the State of Texas, and for other purposes,” approved October 11, 1974 (16 USC 698), hereafter referred to as the “Act,” is amended as follows:

(1) Strike out “map entitled ‘Big Thicket National Preserve’” and all that follows through “Secretary of the Interior (hereafter referred to as the Secretary)” and insert in lieu thereof “map entitled ‘Big Thicket National Preserve’, dated October 1992, and numbered 175-0008, which shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior, and the offices of the Superintendent of the preserve.” After advising the Committee on Energy and Natural Resources of the United States Senate and the Committee on Natural Resources of the United States House of Representatives, in writing, the Secretary of the Interior (hereafter referred to as the “Secretary”) may make minor revisions of the boundaries of the preserve when necessary by publication of a revised drawing or other boundary description in the Federal Register. “The Secretary.”

(2) Strike out “and” at the end of the penultimate undesignated paragraph relating to Little Pine Island-Pine Island Bayou corridor unit.

(3) Strike out the period in the ultimate undesignated paragraph relating to Lance Rosier unit and insert in lieu thereof.

(4) Add at the end thereof the following:

“Village Creek Corridor unit, Hardin County, Texas, comprising approximately four thousand seven hundred and ninety-three acres;

“Big Sandy Corridor unit, Hardin, Polk, and Tyler Counties, Texas, comprising approximately four thousand four hundred and ninety-seven acres; and

“Canyonlands unit, Tyler County, Texas, comprising approximately one thousand four hundred and seventy-six acres.”

(b) ACQUISITION. (1) Subsection (c) of the first section of such Act is amended by striking out the first sentence and inserting in lieu thereof the following: “The Secretary is authorized to acquire by donation, purchase with donated or appropriated funds, transfer from any other Federal agency, or exchange, any lands, waters, or interests therein which are located within the boundaries of the preserve: *Provided*, That privately owned lands located within the Village Creek Corridor, Big Sandy Corridor, and Canyonlands units may be acquired only with the consent of the owner: *Provided further*, That the Secretary may acquire lands owned by commercial timber companies only by donation or exchange: *Provided further*, That any lands owned by the State of Texas, or any political subdivisions thereof may be acquired by donation only.”

(2) Add at the end of the first section of such Act the following new subsections:

“(d) Within sixty days after the date of enactment of this subsection, the Secretary and the Secretary of Agriculture shall identify lands within their jurisdiction located within the vicinity of the preserve which may be suitable for exchange for commercial timber lands within the preserve. In so doing, the Secretary of Agriculture shall seek to identify for exchange National Forest lands that are near or adjacent to private lands that are already owned by the commercial timber companies. Such National Forest lands shall be located in the Sabine National Forest in Sabine County, Texas, in the Davy Crockett National Forest south of Texas State Highway 7, or in other sites deemed mutually agreeable, and within reasonable distance of the timber companies' existing mills. In exercising this exchange authority, the Secretary and the Secretary of Agriculture may utilize any authorities or procedures otherwise available to them in connection with land exchanges, and which are not inconsistent with the purposes of this Act. Land exchanges authorized pursuant to this subsection shall be of equal value and shall be completed as soon as possible, but no later than two years after date of enactment of this subsection.

“(e) With respect to the thirty-seven-acre area owned by the Louisiana-Pacific Corporation or its subsidiary, Kirby Forest Industries, Inc., on Big Sandy Creek in Hardin County, Texas, and now utilized as part of the Indian Springs Youth Camp (H.G. King Abstract 822), the Secretary shall not acquire such area without the consent of the owner so long as the area is used exclusively as a youth camp.”

(c) PUBLICATION OF BOUNDARY DESCRIPTION. Not later than six months after the date of enactment of this subsection, the Secretary shall publish in the Federal Register a detailed description of the boundary of the Village Creek Corridor unit, the Big Sandy Corridor unit, and the Canyonlands unit of the Big Thicket National Preserve.

(d) AUTHORIZATION OF APPROPRIATIONS. Section 6 of such Act is amended by adding at the end thereof the following new sentence: "Effective upon date of enactment of this sentence, there is authorized to be appropriated such sums as may be necessary to carry out the purposes of subsections (c) and (d) of the first section."

Approved July 1, 1993.

APPENDIX E – Multi-Year Fuels Treatment Plan

Fuel treatments are generally most effective when maintained on a two to three year cycle due to long growing season and significant vegetation growth rates of the Big Thicket area. The Fuels Treatment Implementation Plan contains active fuels treatments distributed into equitable workloads over three years. It is designed to provide guidance and tracking for fire managers to maintain this two to three year cycle.

There are four fuel treatment types approved for use individually or in combination to meet objectives on the Preserve:

- **Thinning** – Thinning or removing of brush, understory, or overstory is an approved treatment type and can be done either manually or mechanically.
- **Mastication** – Mastication of brush or understory is an approved treatment type and is done mechanically with a variety of equipment.
- **Prescribed Burning** – Prescribed burning (planned ignitions) both broadcast and pile is an approved treatment type and either hand or aerial ignition is approved for use.
- **Herbicide** – Use of herbicides individually or in combination with other treatments is approved for use.

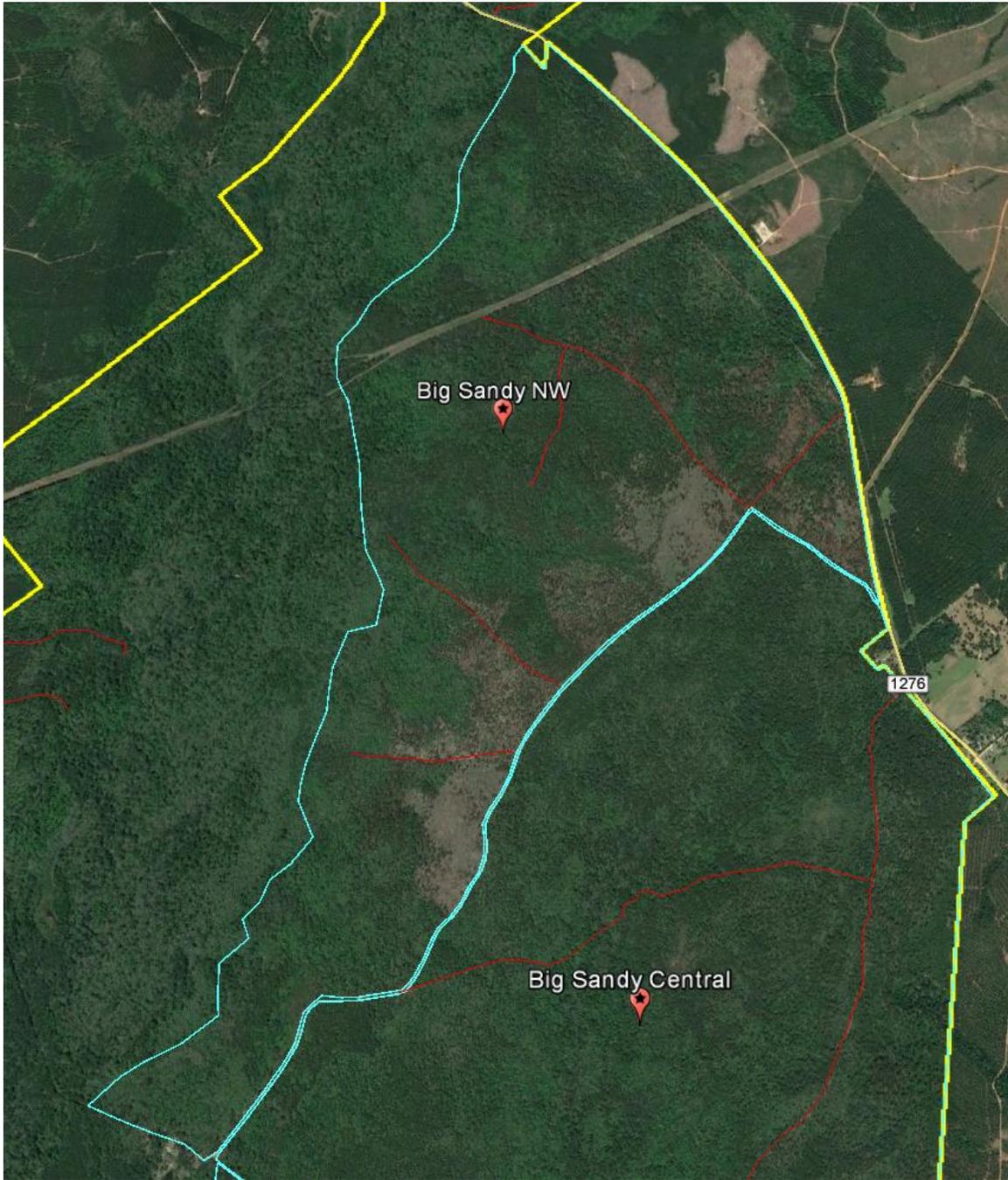
Fuel treatments are primarily focused in areas of the Preserve that have or had fire dependent longleaf pine ecosystems. These areas generally have heavier fuel loadings, drier, and have higher frequency of unplanned wildfires. There are a few fuel treatment units in other vegetation types but only in areas with a high frequency of unplanned wildfires and significant values at risk either on or adjacent to the Preserve. Fuels treatments are also used to assist in the restoration of longleaf pine ecosystems. Restored longleaf pine ecosystems typically support ground fires with isolated torching that is less resistant to control and accomplish fuel reduction objectives.

The seasonality used in the implementation plan refers to the following:

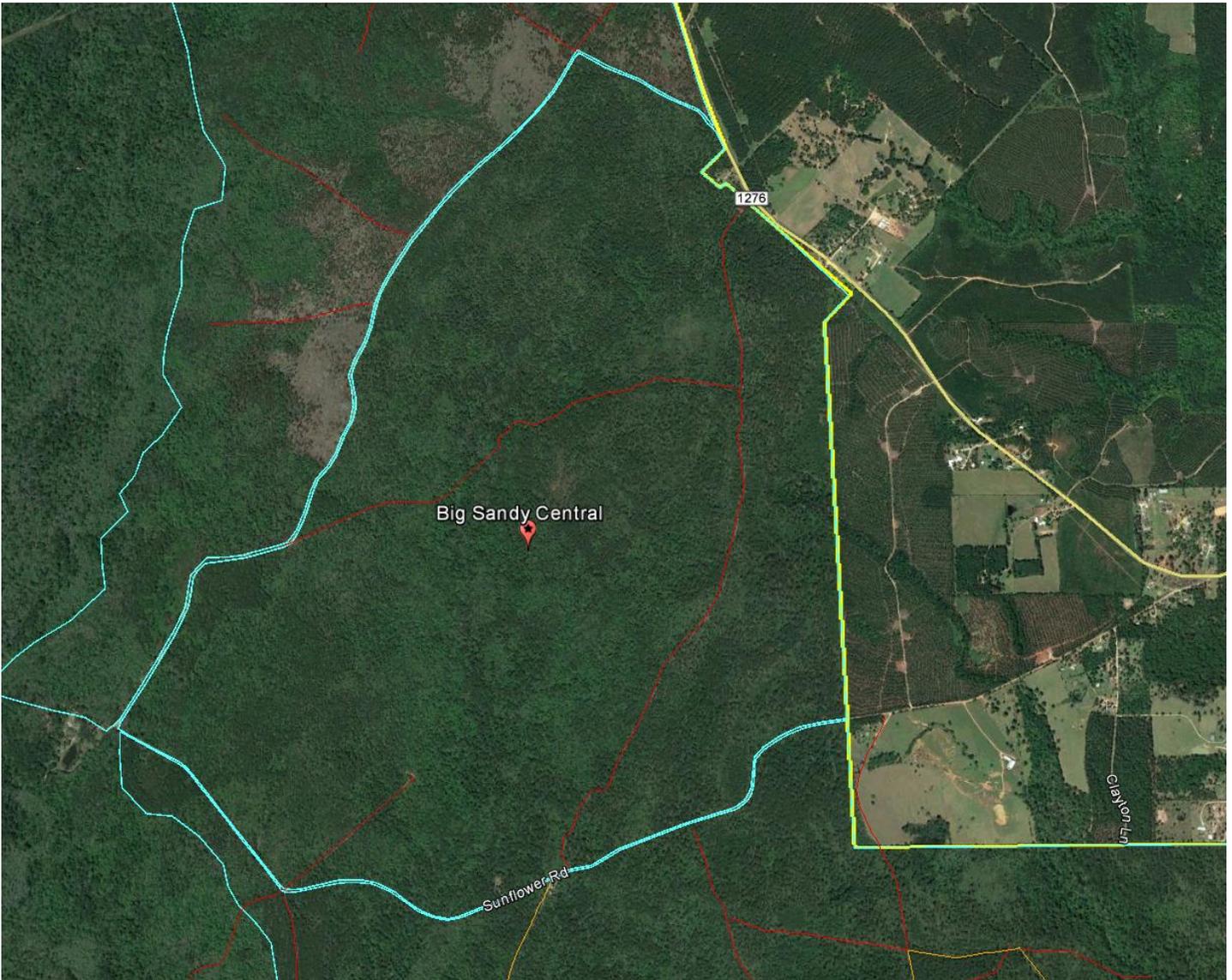
Fall	September – November
Winter	December – February
Spring	March – May
Summer	June – August

Big Thicket Fire Management
Prescribed Burn Implementation Plan

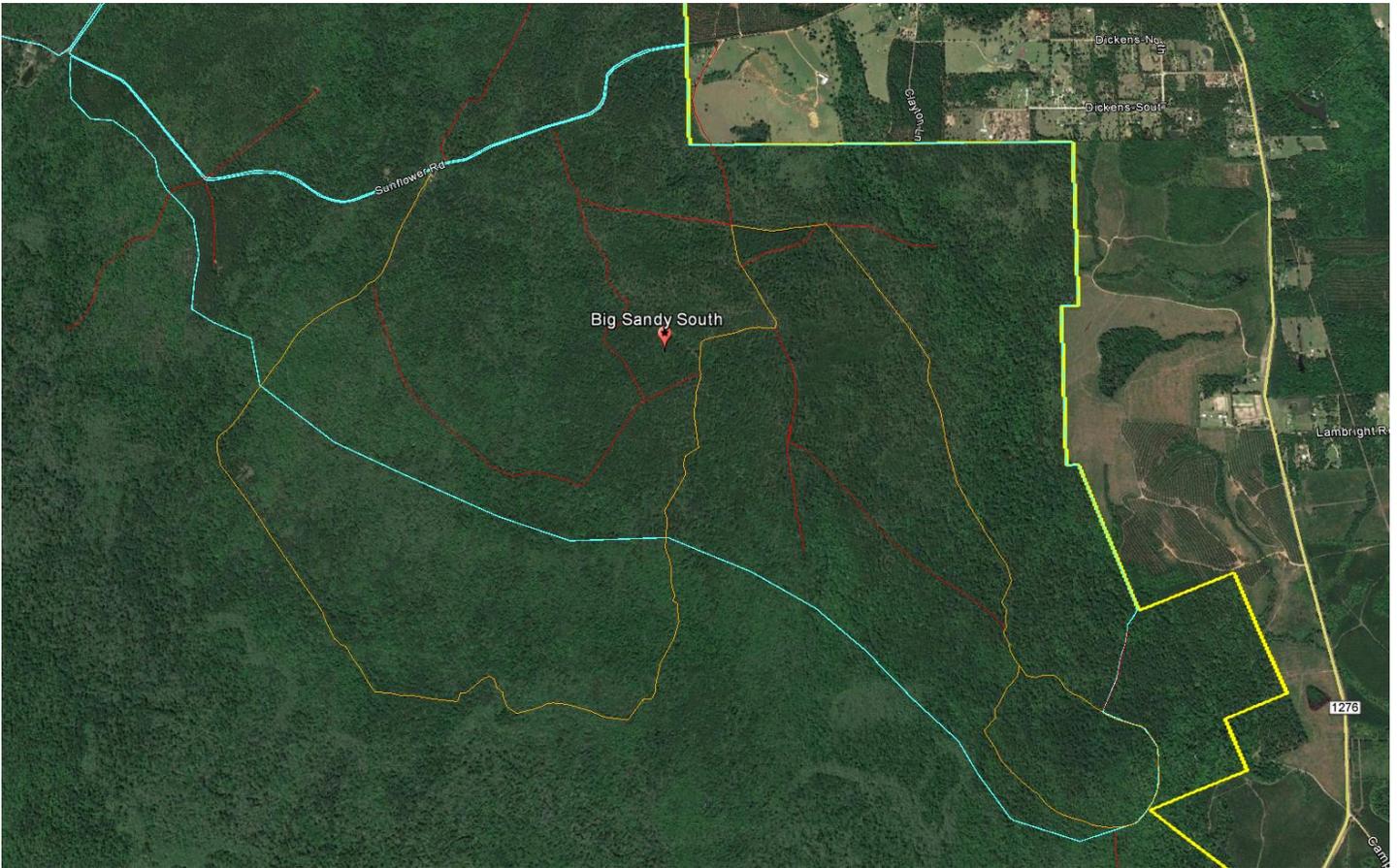
Unit	Project	Acres	FY 2018				FY 2019				FY 2020			
			Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer
ACTIVE PROJECTS														
Big Sandy	Big Sandy NW	1612												
Big Sandy	Big Sandy Central	1936												
Big Sandy	Big Sandy South	2454												
Hickory Creek	Sundew	223												
Hickory Creek	Mayhaw	68												
Hickory Creek	Pond	96												
Hickory Creek	Wildwood	301												
Turkey Creek	Pitcher Plant North	648												
Turkey Creek	Pitcher Plant Bog	196												
Turkey Creek	Pitcher Plant South	480												
Turkey Creek	Ranch house	604												
Turkey Creek	Sandhill	324												
Village Creek Corridor	Solo	91												
RESERVE PROJECTS														
Turkey Creek	Headquarters													
Lance Rosier	Lance Rosier NW													
Lance Rosier	Lance Rosier SE													
Lance Rosier	Lance Rosier SW													
Canyonlands	Canyonlands RX													



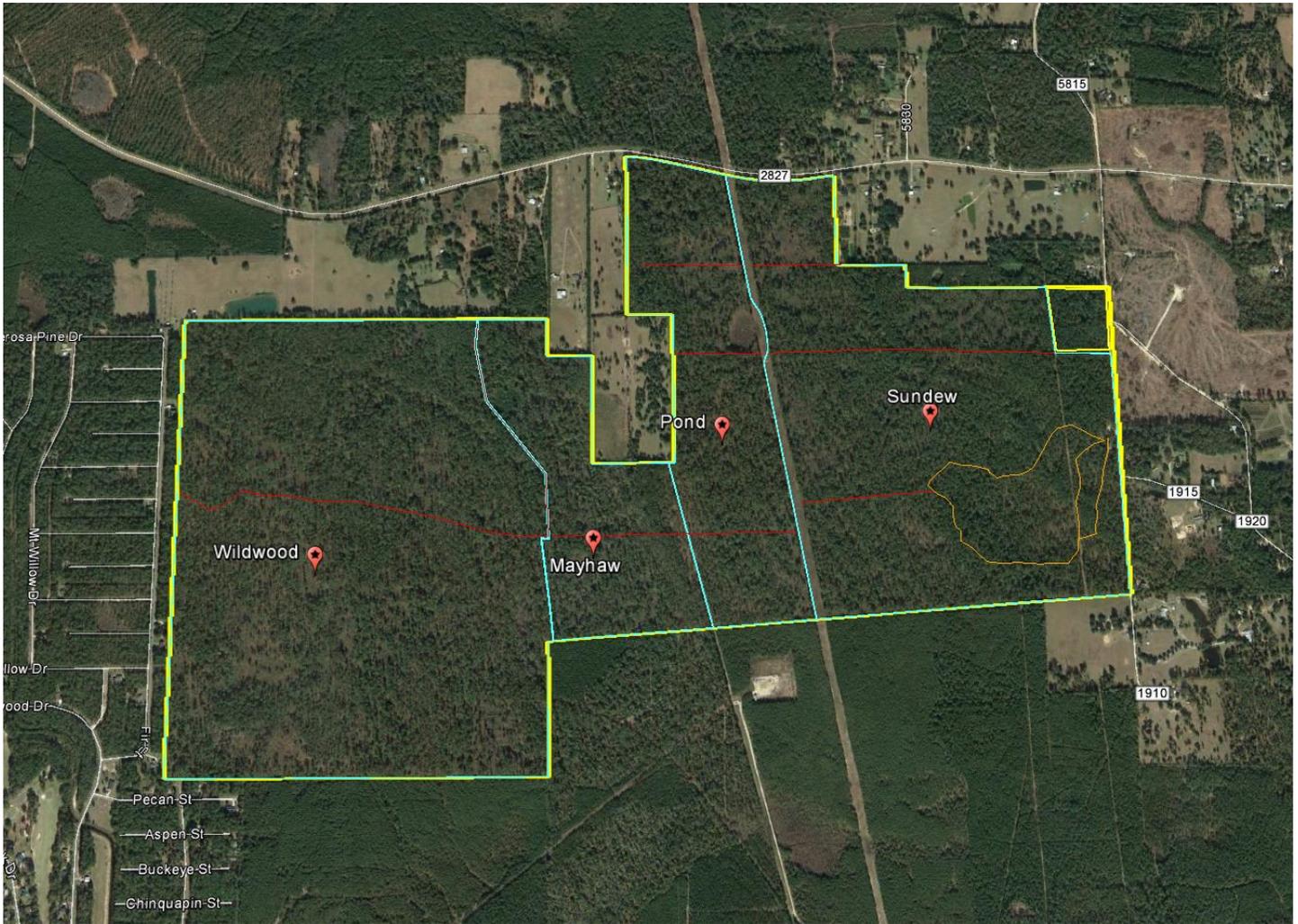
UNIT	Big Sandy
PROJECT	Northwest
ACERAGE	1612 acres
SMOKE SENSITIVE FEATURES	<ul style="list-style-type: none"> • Scattered Rural Housing • Alabama Coushatta Reservation • Sunflower Church • Segno • Dallardsville/ Big Sandy • Indian Springs Community • Hwy 190 • FM 1276 • FM 943 • Sunflower Road • Lily Road
PRIMARY OBJECTIVES	Fuels Reduction, WUI Protection, Longleaf Pine Restoration



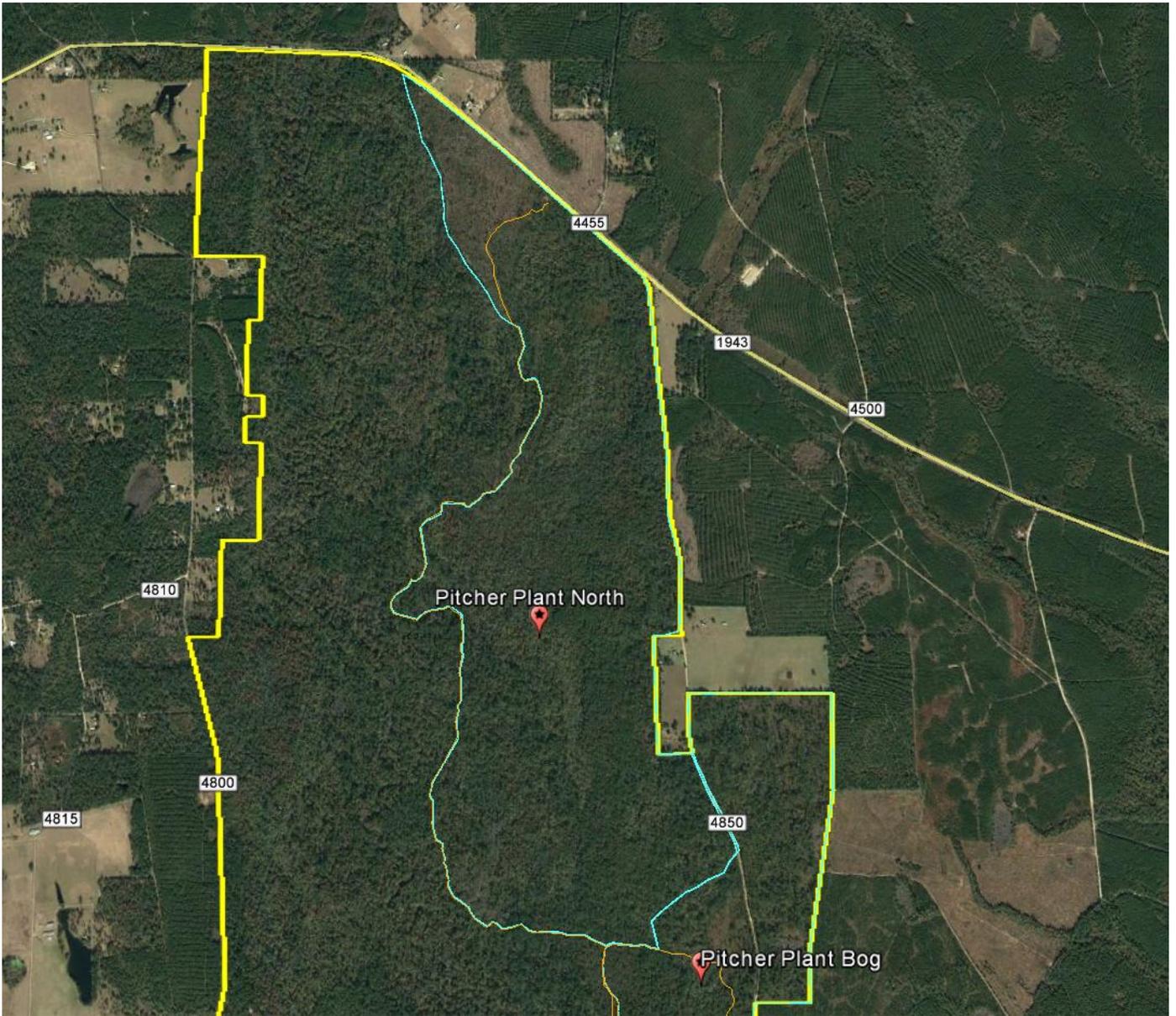
UNIT	Big Sandy
PROJECT	Central
ACERAGE	1936 acres
SMOKE SENSITIVE FEATURES	<ul style="list-style-type: none"> • Scattered Rural Housing • Alabama Coushatta Reservation • Sunflower Church • Segno • Dallardsville/ Big Sandy • Indian Springs Community • Hwy 190 • FM 1276 • FM 943 • Sunflower Road • Lily Road
PRIMARY OBJECTIVES	Fuels Reduction, WUI Protection, Longleaf Pine Restoration



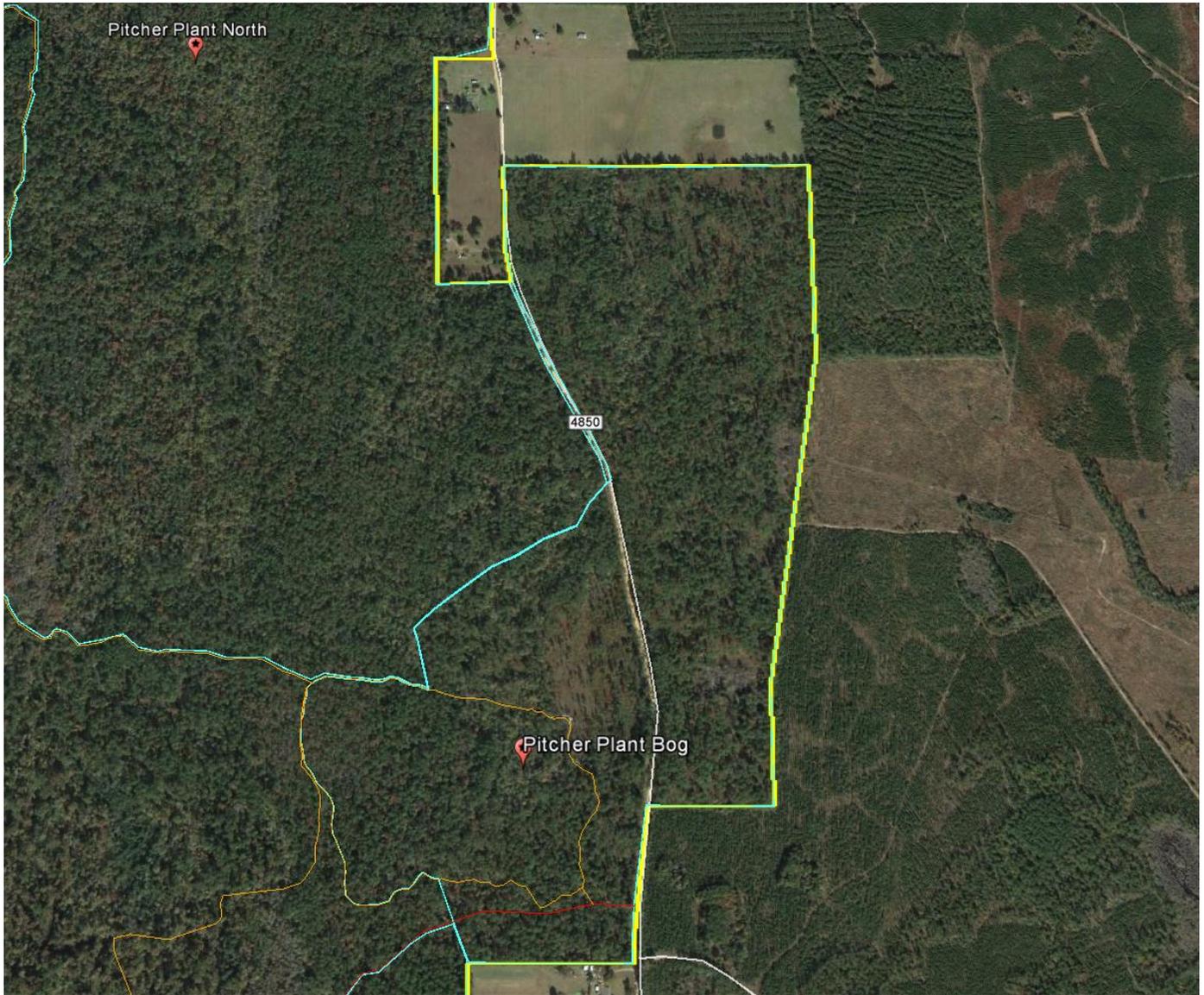
UNIT	Big Sandy
PROJECT	South
ACERAGE	2454 acres
SMOKE SENSITIVE FEATURES	<ul style="list-style-type: none"> • Scattered Rural Housing • Alabama Coushatta Reservation • Sunflower Church • Segno • Dallardsville/ Big Sandy • Indian Springs Community • Hwy 190 • FM 1276 • FM 943 • Sunflower Road • Lily Road
PRIMARY OBJECTIVES	Fuels Reduction, WUI Protection, Longleaf Pine Restoration



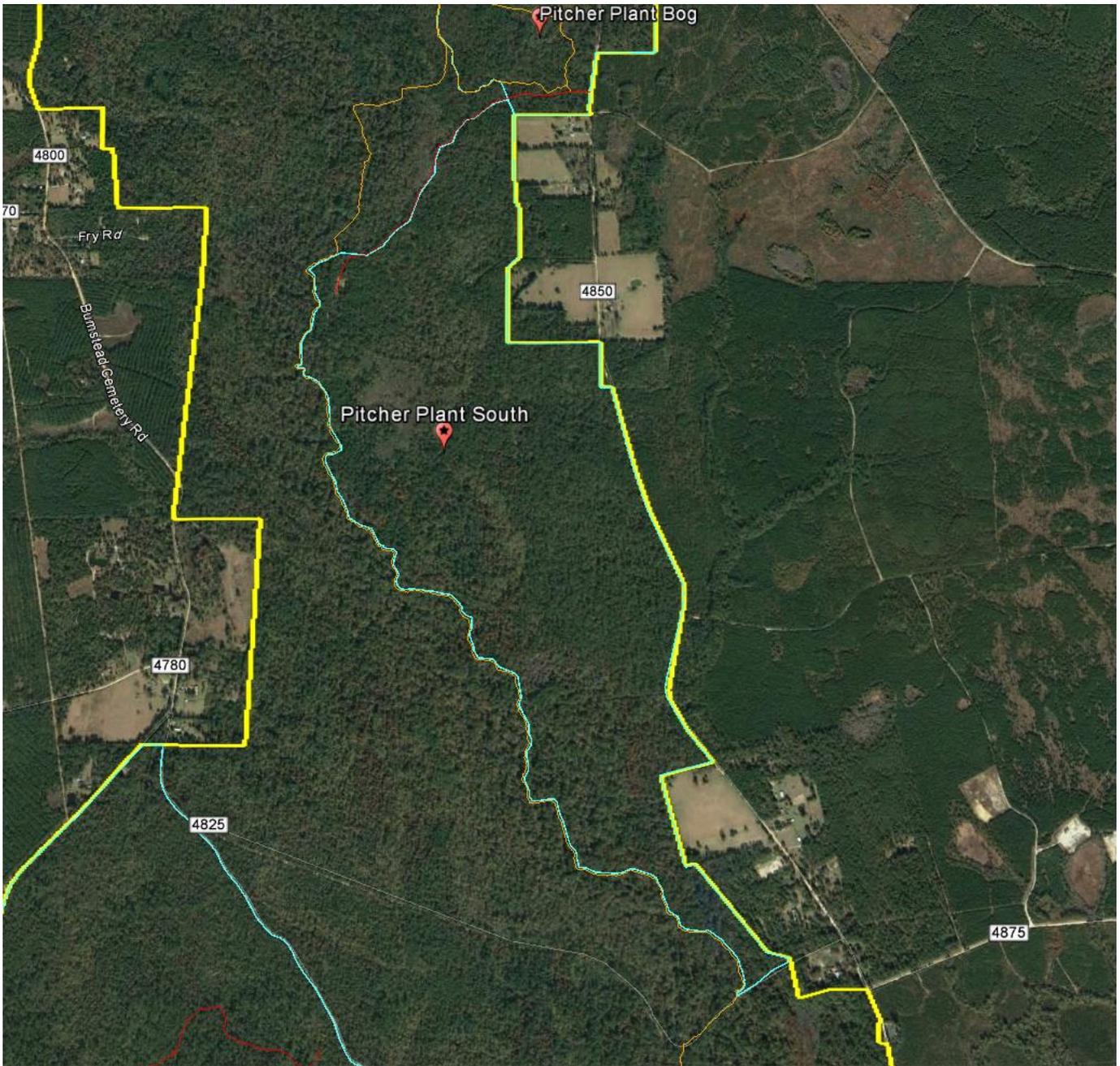
UNIT	Hickory Creek
PROJECT	Sundew, Pond, Mayhaw, Wildwood
ACERAGE	Sundew – 223 acres Pond – 96 acres Mayhaw – 68 acres Wildwood – 301 acres
SMOKE SENSITIVE FEATURES	<ul style="list-style-type: none"> • Scattered Rural Housing • Wildwood Community • Warren • FM 2827 • FM 1910 • Hwy 190
PRIMARY OBJECTIVES	Fuels Reduction, WUI Protection, Longleaf Pine Restoration



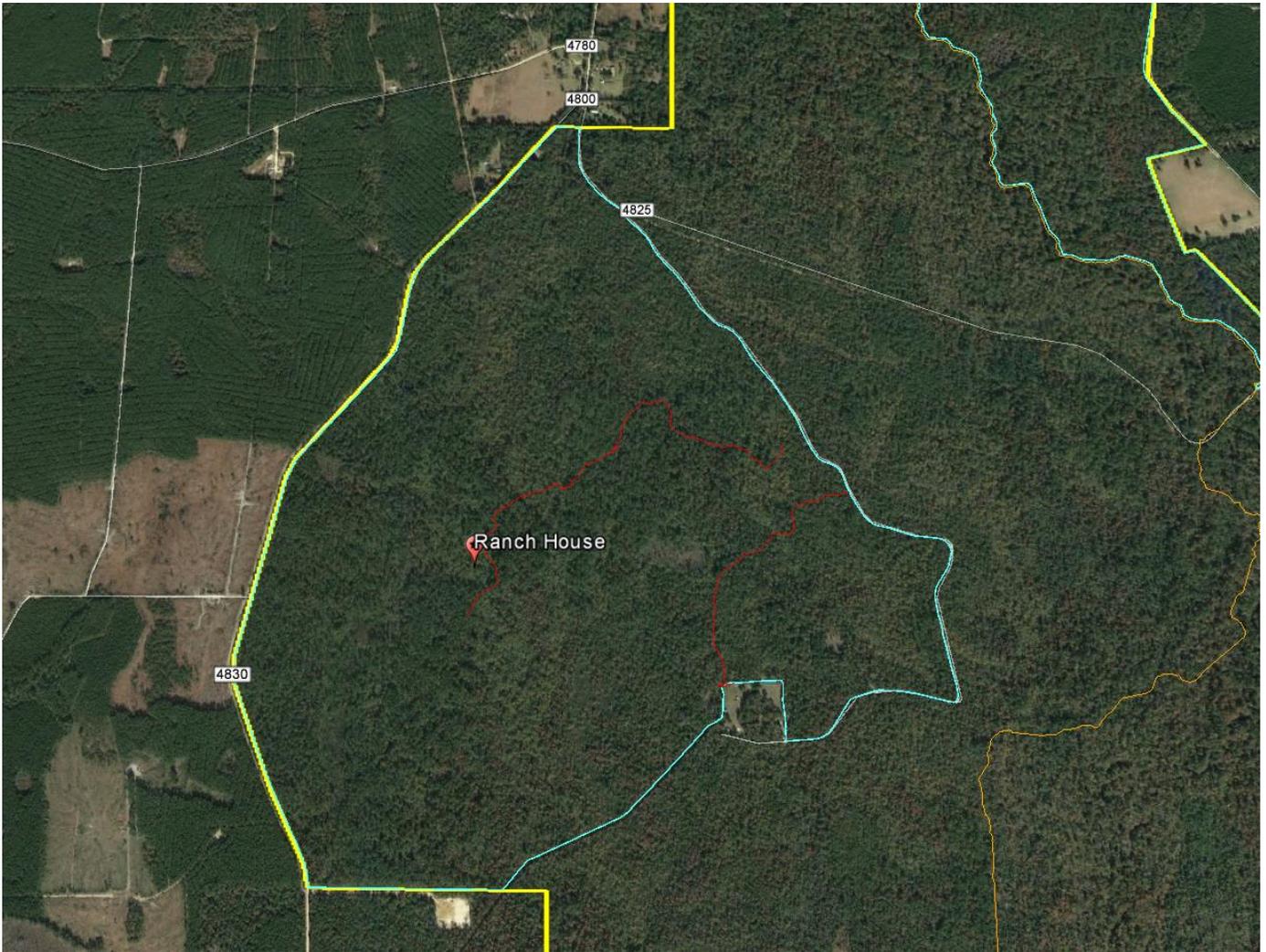
UNIT	Turkey Creek
PROJECT	Pitcher Plant North
ACERAGE	648
SMOKE SENSITIVE FEATURES	<ul style="list-style-type: none"> • Scattered Rural Housing • Warren • FM 1943 • Bumstead Road • Hicksbaugh Road • Pineville Road • Triple D Road • Gore Store Road
PRIMARY OBJECTIVES	Fuels Reduction, WUI Protection, Longleaf Pine Restoration



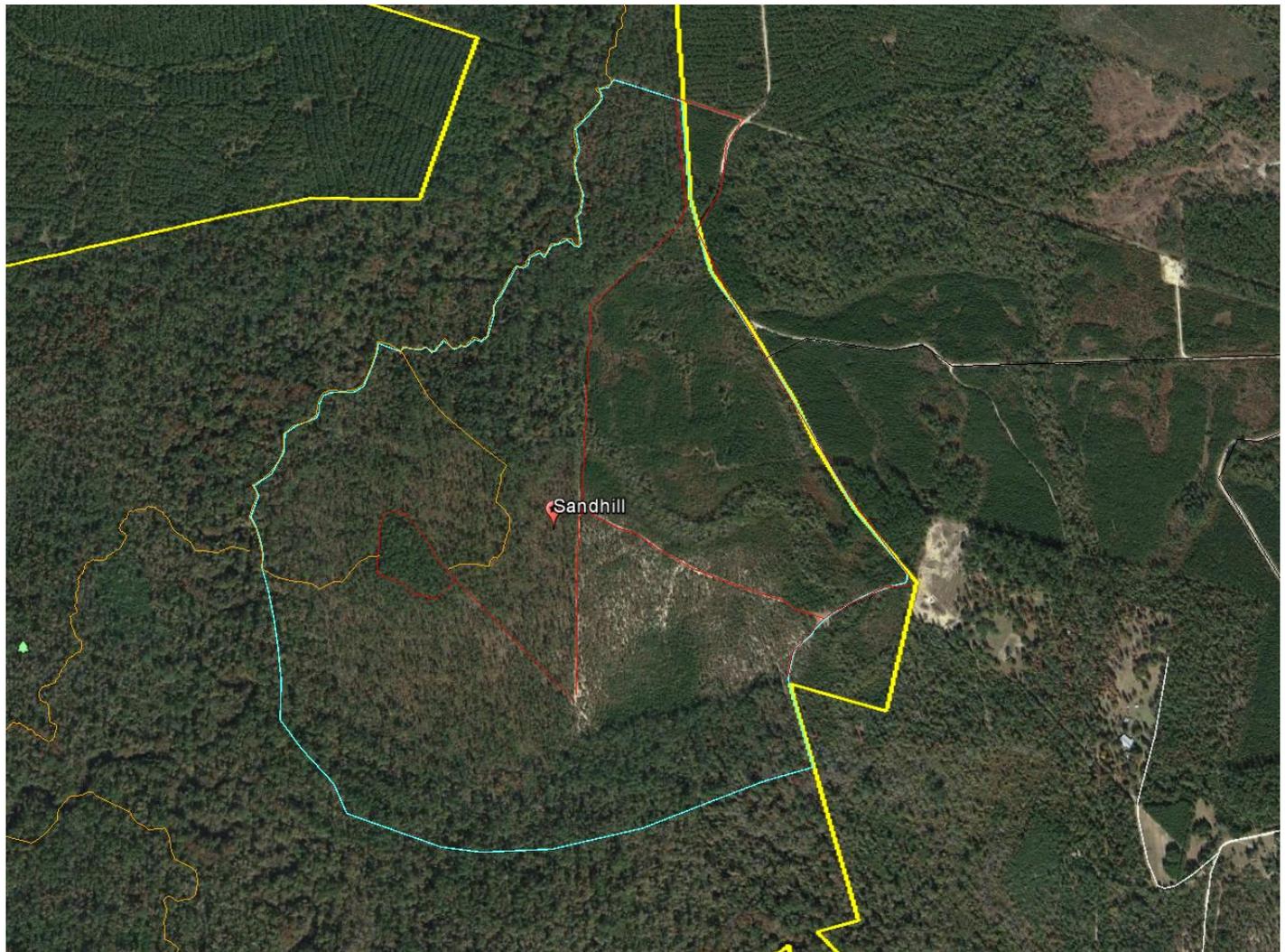
UNIT	Turkey Creek
PROJECT	Pitcher Plant Bog
ACERAGE	196
SMOKE SENSITIVE FEATURES	<ul style="list-style-type: none"> • Scattered Rural Housing • Warren • FM 1943 • Bumstead Road • Hicksbaugh Road • Pineville Road • Triple D Road • Gore Store Road
PRIMARY OBJECTIVES	Fuels Reduction, WUI Protection, Longleaf Pine Restoration



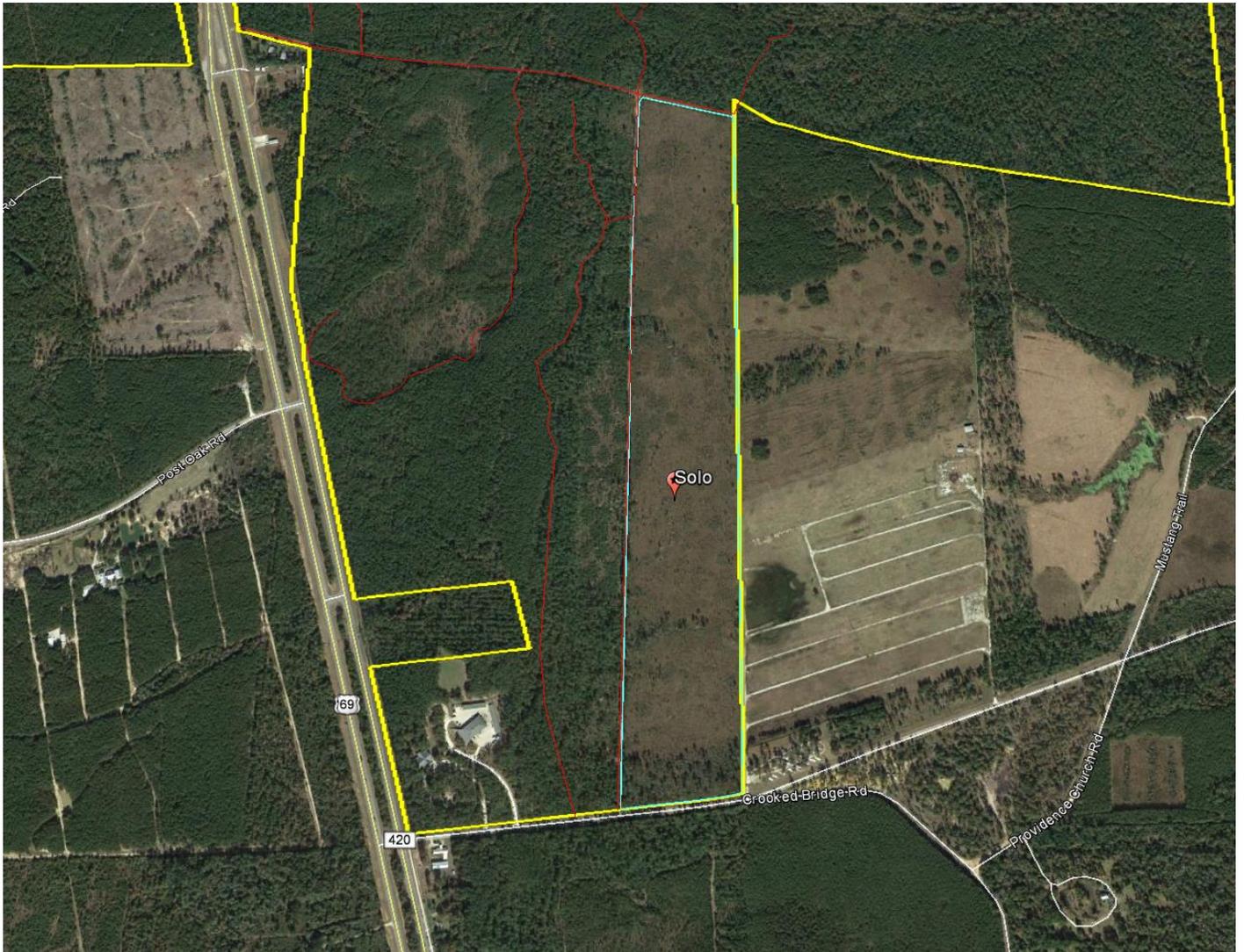
UNIT	Turkey Creek
PROJECT	Pitcher Plant South
ACERAGE	480
SMOKE SENSITIVE FEATURES	<ul style="list-style-type: none"> • Scattered Rural Housing • Warren • FM 1943 • Bumstead Road • Hicksbaugh Road • Pineville Road • Triple D Road • Gore Store Road
PRIMARY OBJECTIVES	Fuels Reduction, WUI Protection, Longleaf Pine Restoration



UNIT	Turkey Creek
PROJECT	Ranch House
ACERAGE	604
SMOKE SENSITIVE FEATURES	<ul style="list-style-type: none"> • Scattered Rural Housing • Warren • FM 1943 • Bumstead Road • Hicksbaugh Road • Pineville Road • Triple D Road • Gore Store Road
PRIMARY OBJECTIVES	Fuels Reduction, WUI Protection, Longleaf Pine Restoration



UNIT	Turkey Creek
PROJECT	Sandhill
ACERAGE	324
SMOKE SENSITIVE FEATURES	<ul style="list-style-type: none"> • Scattered Rural Housing • McNeely Settlement • Gore Store Road • FM 420
PRIMARY OBJECTIVES	Fuels Reduction, WUI Protection, Longleaf Pine Restoration



UNIT	Village Creek Corridor Unit
PROJECT	Solo
ACERAGE	91
SMOKE SENSITIVE FEATURES	<ul style="list-style-type: none"> • Scattered Rural Housing • Village Mills Community • Big Ticket National Preserve Headquarters and Visitor Center • Hwy 69 • FM 420
PRIMARY OBJECTIVES	Fuels Reduction, WUI Protection, Longleaf Pine Restoration

Big Thicket Fire Management														
<i>Mechanical Implementation Plan</i>														
Unit	Project	Acres	FY 2018				FY 2019				FY 2020			
			Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer
Mechanical														
Parkwide	Parkwide Facility Defensible Space	10												
Big Sandy	Centennial Forest	299												
Big Sandy	Big Sandy NW Fuel Break	12												
Big Sandy	Big Sandy Central Fuel Break	27												
Big Sandy	Big Sandy South Fuel Break	26												
Beech Creek	Beech Creek Shaded Fuel Break	56												
Hickory Creek	Hickory Creek Fuel Break	26												
Turkey Creek	Pitcher Plant North Fuel Break	18												
Turkey Creek	Pitcher Plant Proper Fuel Break	9												
Turkey Creek	Pitcher Plant South Fuel Break	21												
Turkey Creek	Ranchhouse Fuel Break	9												
Turkey Creek	Sandhill Fuel Break	13												
Turkey Creek	Kirby Shaded Fuel Break	3												
Village Creek Corridor	Solo Fuel Break	6												
Canyonlands	Canyonlands Fuel Break	14												

Big Thicket Fire Management														
<i>Herbicide Implementation Plan</i>														
Unit	Project	Acres	FY 2018				FY 2019				FY 2020			
			Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring	Summer
Herbicide														
Parkwide	Parkwide Facility Defensible Space	10												
Big Sandy	Centennial Forest	299												
Big Sandy	Big Sandy NW Fuel Break	12												
Big Sandy	Big Sandy Central Fuel Break	27												
Big Sandy	Big Sandy South Fuel Break	26												
Beech Creek	Beech Creek Shaded Fuel Break	56												
Hickory Creek	Hickory Creek Fuel Break	26												
Turkey Creek	Pitcher Plant North Fuel Break	18												
Turkey Creek	Pitcher Plant Proper Fuel Break	9												
Turkey Creek	Pitcher Plant South Fuel Break	21												
Turkey Creek	Ranchhouse Fuel Break	9												
Turkey Creek	Sandhill Fuel Break	13												
Turkey Creek	Kirby Shaded Fuel Break	3												
Village Creek Corridor	Solo Fuel Break	6												
Canyonlands	Canyonlands Fuel Breaks	14												

APPENDIX F – Fire Monitoring Plan

With the long term vacancies of the Fire Ecologist and Lead Fire Effects Monitor positions in the organization, the Fire Effects Monitoring Program is currently inactive and in a state of transition. A new Fire Effects Monitoring Plan is being developed to refine monitoring and data analysis protocols.

Level 1 (Environmental Monitoring), Level 2 (Physical Observations), and Level 3 (Short-Term Change) will continue to be monitored for fire management activities described in this plan until a new Fire Effects Monitoring Plan is finalized. It will be added in this Appendix E when it is completed and approved.

APPENDIX G – Preparedness Planning Documents

Delegation of Authority for Fire Management Officer

R. Fulton Jeansonne, Fire Management Officer for the Big Thicket National Preserve, is delegated authority to act on my behalf for the following duties and actions:

1. Ensure all incidents and activities are managed in a safe and cost-effective manner.
2. Represent the Big Thicket National Preserve in the Texas Multi-Agency Coordinating Group in setting priorities and allocating resources for fire emergencies. Coordinate with the Texas Interagency Coordination Center (TICC) on behalf of Big Thicket National Preserve.
3. Coordinate all fuels treatment activities, including prescribed burning, in the Big Thicket National Preserve according to policy and the multi-year treatment plan in the FMP.
4. Coordinate all fire suppression and fire management activities in the Big Thicket National Preserve in accordance with the approved FMP.
5. Coordinate and assign Fire Duty Officers as stated in the Organizational Responsibilities Section (Section V) and Step-Up Plan (Section IV) of the approved FMP.
6. Coordinate and implement the Step-Up Plan (Section IV) of the approved FMP.
7. Ensure that responsibilities stated in Article II of the Interpark Agreement between Big Thicket National Preserve, Lyndon B. Johnson National Historical Park, Padre Island National Seashore, and San Antonio Missions National Historical Park are met.
8. Ensure that only fully qualified personnel are used in wildland fire and prescribed fire activities, (see Redbook Chapter 13).
9. Coordinate, preposition, send, and order fire and aviation resources in response to current and anticipated fire conditions.
10. Request and ensure accountability of Step-Up and Seventy funding for the Big Thicket National Preserve fire program. Approve fire program requests of overtime, hazard pay, and other premium pay.
11. Coordinate all fire funding accounts with the Fire Program Management Assistant and Budget Analyst to ensure fiscal guidelines are adhered to and targets are met.
12. Approve and sign Red Cards.
13. Authorized to hire Emergency Firefighters in accordance with the Department of Interior Pay Plan for Emergency Workers.
14. If an acting Superintendent has not completed Fire Management Leadership, in the event of a wildland fire the FMO will assume the duties of acting Superintendent.
15. This delegation is in effect until rescinded, or for a maximum of 5 years. It will be reviewed annually as part of the annual preparedness review.

R. Fulton Jeansonne – FMO – Big Thicket National Preserve

Date

A. Wayne Prokopetz - Superintendent - Big Thicket National Preserve

Date

**** Signed Delegation of Authority is on file at BITH Fire Management office.**



BITH Duty Officer Delegation of Authority

Per National Park Service Policy, as stated in the Interagency Standards for Fire and Aviation Operations (Red Book), I delegate the authority to perform the role of **Duty Officer (DO)** within the Big Thicket National Preserve to individuals meeting minimum qualifications set forth in the current Step-up / Preparedness plan. This delegation shall become effective upon the signature date for a maximum of 5 years or until rescinded, it will be reviewed annually as part of the annual preparedness review. The required duties for all DOs are:

- Responsible for the oversight and support of any wildfires on the Preserve as well as any Mutual Aid fire request.
- Assures all incidents are managed in accordance with the current Fire Management Plan.
- Assures that only fully qualified personnel are used in wildland fire operations.
- Monitors incidents to ensure the complexity is within the incident commander's qualifications.
- Ensure that the appropriate parties are advised of fires starting on or threatening the Preserve.
- Coordinate with the Fire Management Officer and the Wildland Fire Operations Specialist to ensure appropriate resources are assigned. In the case where these parties are not available, the DO will make all necessary decisions, notifying the Fire Management Officer as soon as practical.
- Monitor unit incident activities for compliance with NPS safety policies.
- Ensure that all incidents are managed in a safe and cost-effective manner.
- Coordinate and set priorities for unit suppression actions and resource allocations.
- Keep agency administrators, regional duty officer, suppression resources and information officers informed of the current and expected situation.
- Plan for and implement actions required for future needs.
- Document all decisions and actions.
- The DO will be available for after hour calls via the DO cell phone.
- During **PL IV** or **V** the DO will notify park staff and Texas Forest Service dispatch when there is a change in Duty Officer.
- Ensure that daily safety briefings are being conducted.
- The DO will manage daily staffing during **PL IV** and **V** and follow work / rest guidelines as stated in the Interagency Standards for Fire and Aviation Operations (Red Book).
- Ensure that all notifications have been made, report location, size and potential to the Fire Management Officer, Superintendent, Chief of Resources and the Chief Ranger if applicable. This may happen via text, emails, phone or personal briefings.
- The DO will understand the Delegation of Authority for the DO and the Incident Commanders of ongoing fires within the Preserve. Stay within that delegation.
- If opportunity permits, visit ongoing incidents to discuss current needs with Incident Commanders.
- If possible, participate in the after action reviews for any incidents during that operational period.

The DO will not fill any ICS incident command function connected to any incident. In the event that the DO is required to accept an incident assignment, the Fire Management Officer will ensure that another authorized DO is in place prior to the departure of the outgoing DO.

Due to the small nature of the preserve fire staff, during low complexity or single incidents the DO may be required to fill an incident position. This should only be done when necessary and a replacement DO cannot be found at the onset of the incident. All attempts should be made to hand off DO responsibilities.

Personnel authorized to act as Duty Officer for Big Thicket National Preserve:

Preparedness Level	Authorized Duty Officer
I	Fulton Jeansonne, Rodney Monk, DW Ivans, Frank Sylestine, Gus Schaefer
II	Fulton Jeansonne, Rodney Monk, DW Ivans, Frank Sylestine, Gus Schaefer
III	Fulton Jeansonne, Rodney Monk, DW Ivans, Frank Sylestine, Gus Schaefer
IV	Fulton Jeansonne, Rodney Monk, DW Ivans
V	Fulton Jeansonne, Rodney Monk

***Personnel assigned as Duty Officer that are not listed above will meet the minimum qualification level set forth in the current Step-up/ Preparedness plan and receive a separate delegation of authority.*

A. Wayne Prokopetz, – Superintendent, Big Thicket National Preserve

Date

**** Signed Delegation of Authority is on file at BITH Fire Management office.**

Step Up Plan for Big Thicket National Preserve

BITH Preparedness Plan Levels

NFDRS Fire Danger	Preparedness Level	% range	ERC	Burning Index
Low	I	0-45%	0-9	0-9
Moderate	II	45-67%	10-17	10-18
High	III	67-90%	18-33	19-36
Very High	IV	90-97%	34-39	37-44
Extreme	V	97-100%	40 and up	45 and up

- The Energy Release Component (ERC) will be the primary indicator used for preparedness. The ERC is a number related to the available energy (BTU) per unit area (square foot) within the flaming front at the head of a fire. The ERC is considered a composite fuel moisture index as it reflects the contribution of all live and dead fuels to potential fire intensity. As live fuels cure and dead fuels dry, the ERC will increase and can be described as a build-up index. The ERC has memory. Each daily calculation considers the past 7 days in calculating the new number. Daily variations of the ERC are relatively small as wind is not part of the calculation.
- The Burning Index will be used as a daily staffing level indicator, BI is a measure of fire intensity. BI combines the Spread Component and Energy Release Component to relate to the contribution of fire behavior to the effort of containing a fire. BI has no units, but in general it is 10 times the flame length of a fire

Preparedness Level Actions:

(Each preparedness level includes all activities at lower preparedness levels)

Preparedness Level I: All fire tools, supplies and equipment are inspected and ready to use. Fire-fighting personnel will receive annual fireline safety refresher training and take appropriate work capacity test. Telephones are staffed during regular duty hours. Fire Duty Officer (FDO) schedule is current and assigned FDO is available via cell (409-656-4505) after hours and on weekends. Funding by routine operational accounts. Dormant season short term events are possible during any PL class and will be funded through local Step-up procedures.

- **Minimum FDO qualifications – ICT5**

Preparedness Level II: Includes above. All firefighting personnel maintain regular radio contact during duty hours. At least one engine and one dozer are available for response, although they may not be immediately staffed. Canned delegation of authority should be prepared and available, if needed, as fire danger increases.

- **Minimum FDO qualifications – ICT5**

Preparedness Level III: Includes above. During duty hours all firefighting personnel have IA gear and fire tools available and are within one hour travel time to a vehicle. Appropriate BITH equipment (UTV's, dozer etc.) are ready for staffing and deployment if needed. Fire staff ensures that additional red carded park staff is aware of escalating fire danger levels. If indices are expected to continue to increase or remain at PL III for an extended period, the FMO prepares a seasonal risk assessment. At the upper end of PLIII: **Normal Duty Hours** – Initial attack resources should include at least one ICT5/ENGB and a DZOP. **After Hours** – Duty Officer should verify availability of personnel. The following events will push the PL up one level to PLIV: a heavy public use period, (holidays, major hunting season, etc.), a red flag warning, wind event or numerous fires adjacent to BITH underway.

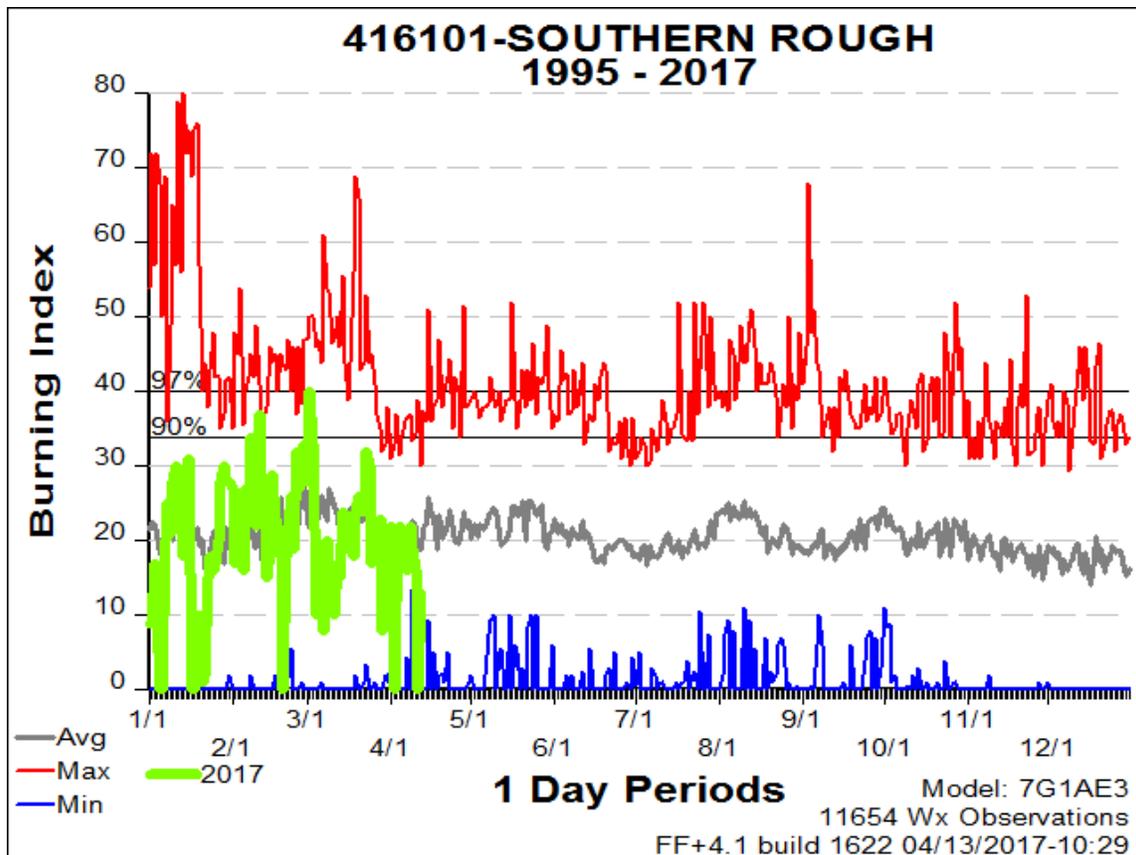
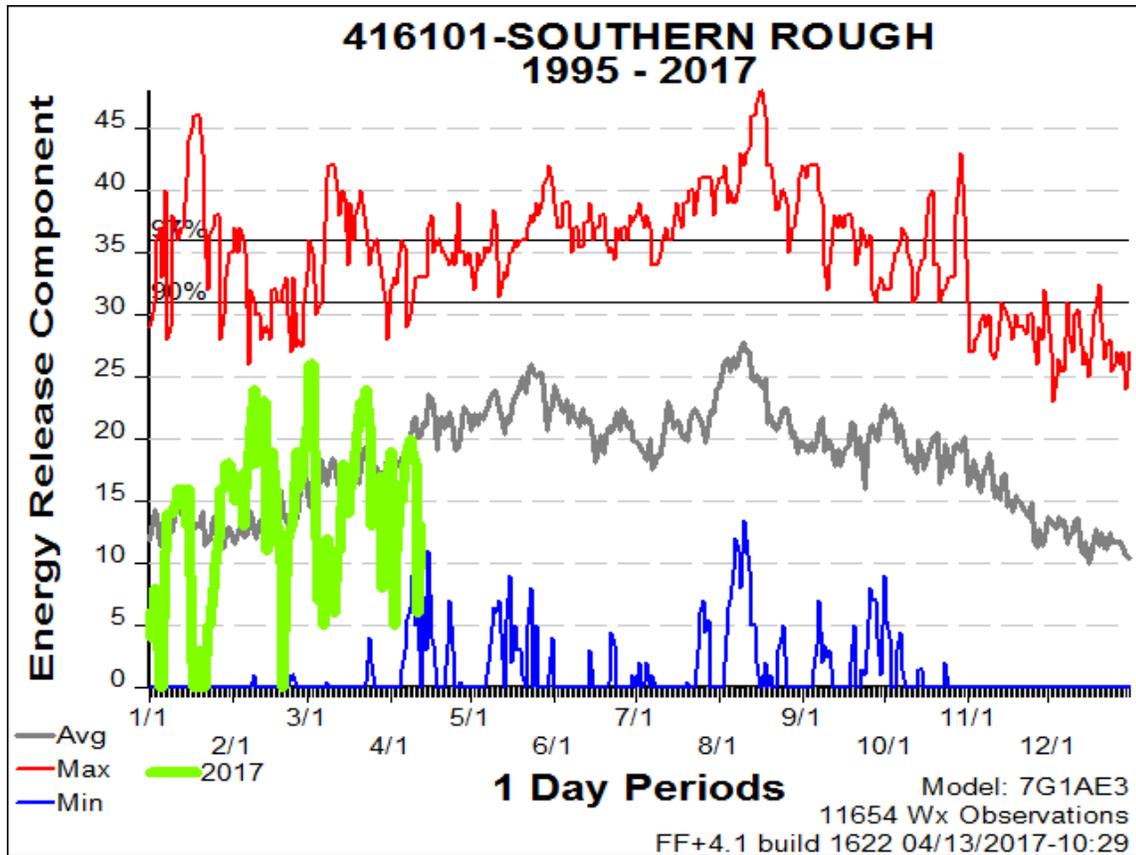
- **Minimum FDO qualifications – ICT4**

Preparedness Level IV: Includes above. Initiate seven-day per week initial attack coverage at the appropriate level for conditions. Two to six initial attack personnel are on-duty daily, depending on indices, including at least one ICT4/ENGB, and one DZOP. Tours of duty may be extended until darkness for IA personnel. Trail and backcountry areas may be closed to public use if conditions warrant. Fire/smoking restrictions may be considered. Preserve visitors are contacted and informed of the very high fire danger through the Visitor Center and trail postings. Daily fire staff safety briefings are initiated at start of shift. Interpretive staff ensures they have fire danger messages incorporated into interpretive programs and visitor contacts. A Preparedness Step-up account (1-5 days duration) may be opened by the park to supplement funding to ensure the above actions occur. Communication channels are clarified /established with TICC, TFS dispatch and other agencies. Superintendent, Division Chiefs, and IMRO Fire Management Office are notified. If longer duration PLIV and PLV periods are expected, a severity request should be prepared and submitted to the IMRO. The following events will push the PL up one level to PLV: a heavy public use period, (holidays, major hunting season, etc.), a red flag warning, wind event or numerous fires adjacent to BITH underway.

- **Minimum FDO qualifications – TFLD**

Preparedness Level V: Includes above as well as seven-day per week initial attack coverage confirmed and formalized; firefighter days off or AL may be postponed to provide necessary coverage. Dozer-fireplow operator will be available to respond to equipment within 1 hour during daylight hours seven days per week. Patrols and standby locations will be initiated and identified. Prevention patrols may be ramped up by LE personnel during additional hours as warranted. If fire staff becomes committed to local fires, additional personnel will be hired or ordered to supplement IA forces. Work with TICC and TFS to ensure adequate fire radio dispatching in place. Shorter duration funding (1-5 days) should be funded with a preparedness step-up account. Longer duration periods should be funded with a formal severity account. Interagency resources may be requested through the Texas Interagency Coordination Center and pre-positioned. Partners should be contacted to consider activating local area Multi-Agency Command (MAC) group to coordinate response to large or multiple fires, or resource shortages.

- **Minimum FDO qualifications – ICT 3 or DIVS**



January 1st-March 31st

Southeast Texas Preparedness Level Worksheet

<i>Energy Release Component (ERC)</i>	0-8 ☐	8-16 ☐	16-23 ☐	23-38 ☐
Preparedness Level	I	II	III	IV
Cured Grass Present (<small>< 20% green in overall grass profile</small>)	Yes/No ↑ ↓	Yes/No ↑ ↓	Yes/No ↑ ↓	Yes/No ↑ ↓
Adjusted Preparedness Level	II	III	IV	IV

Southeast Texas Staffing Level Worksheet

<i>Burning Index (BI)</i>	PL I ☐	PL II ☐	PL III ☐	PL IV ☐
0-13 ☐	I	I	II	II
13-26 ☐	I	II	III	III
26-38 ☐	II	II	III	IV
38-58 ☐	II	III	IV	IV

June 1st-October 31st

Southeast Texas Preparedness Level Worksheet

<i>Energy Release Component (ERC)</i>	0-14 <input type="checkbox"/>	14-25 <input type="checkbox"/>	25-37 <input type="checkbox"/>	37-50 <input type="checkbox"/>
Preparedness Level	I	II	III	IV
Cured Grass Present (<small>< 20% green in overall grass profile</small>)	Yes/No ↑ ↓	Yes/No ↑ ↓	Yes/No ↑ ↓	Yes/No ↑ ↓
Adjusted Preparedness Level	II	III	IV	IV

Southeast Texas Staffing Level Worksheet

<i>Burning Index (BI)</i>	PL I <input type="checkbox"/>	PL II <input type="checkbox"/>	PL III <input type="checkbox"/>	PL IV <input type="checkbox"/>
0-16 <input type="checkbox"/>	I	I	II	II
16-26 <input type="checkbox"/>	I	II	III	III
26-37 <input type="checkbox"/>	II	II	III	IV
37-68 <input type="checkbox"/>	II	III	IV	IV



BITH-Single Agency Delegation of Authority

Date: *****

Subject: Delegation of Authority, ***** Fire

To: ***** , Incident Commander

As of **** hours on **** I delegate the authority and responsibility for the management of the **** Fire to Incident Commander *****.

This delegation of authority carries with it the full range of responsibilities associated with the management of the continuing suppression efforts and the necessary rehabilitation of effects directly related to your suppression operations within the scope of applicable law, policy, and guideline.

You will have full authority and responsibility for managing the fire suppression activities, strategies, and corresponding tactics in the framework of laws, agency policy, and direction provided in the Agency Administrator Briefing. Your primary responsibility is to organize and direct your assigned resources for efficient and effective suppression of the fire. You are accountable to ***** as my representative.

Specific direction for this incident, covering management and environmental concerns, is:

1. Protection of life and developments is our highest priority task. Give special consideration for firefighter safety, especially with respect to aviation operations, work near snags, and potential entrapment. When in doubt, sacrifice acres, not safety, in your strategic and tactical decisions. Conduct reconnaissance to locate and protect private land and visitors. Limit public exposure to the incident by controlling road and trail accesses.
2. Use appropriate strategy and tactics to hold the fire within the boundaries of Big Thicket National Preserve.
3. You are expected to execute a suppression strategy. Chainsaw use, tractor plow, dozers, and pumps are approved for use. Use of aerial retardant and foam is approved. Keep retardant more than 300 feet away from any water source.
4. Conduct all fire management and team expense activities in a cost efficient manner. Release all surplus overhead and resources in a timely manner. Track all costs on a daily basis. Provide daily updates to my representative or me.

All pending finance issues are to be resolved before responsible team members leave the fire unless negotiated otherwise with the Preserve

Provide an accurate inventory of all accountable property and equipment prior to closeout or transition to the next team.

APPENDIX H – Cooperative and Interagency Agreements

**MEMORANDUM OF UNDERSTANDING
BETWEEN
NATIONAL PARK SERVICE
INTERMOUNTAIN REGION
BIG THICKET NATIONAL PRESERVE
AND
TEXAS A&M FOREST SERVICE**

I. INTRODUCTION:

Land management and conservation agencies have an obligation to provide for public protection from wildfire, and other “all risk” type incidents such as hurricanes, floods, and acts of terrorism. These agencies also have a responsibility to sustain diverse and productive ecosystems. These ecosystems provide cultural, scientific and recreational needs for a diverse cross-section of Americans. In order to meet these responsibilities, agencies must work together, and when possible, provide support to other agencies in their conservation efforts.

II. PURPOSE:

The purpose of this MOU is to provide mutual support, cooperation and assistance between the National Park Service, Intermountain Region, Big Thicket National Preserve (Big Thicket) and the Texas A&M Forest Service (TFS) for prescribed fire management; fire prevention; fire preparedness; and for emergency management and assistance on incidents such as wildfire, floods, acts of terrorism, and hurricanes, etc., at no cost to the benefiting agency. It will also provide for technical support, and will allow each party to obtain equipment and appropriate personal safety items as necessary to ensure the safety of employees participating in interagency incident management efforts.

III. AUTHORITY:

This MOU is entered into under the authority provided in:

Reciprocal Fire Protection Act of May 27, 1955 (69 Stat. 66; 42 U.S.C. 1856a) (F&WS, NPS, USFS)

Disaster Relief Act of May 22, 1974 (NPS)

Organic Act of August 1916 (16USC1) (NPS)

Federal Grant and Cooperative Agreement Act of 1977 [P.L. 960224, as amended by P.L. 97-258, September 13, 1982 (96 Stat. 1003;31 U.S.C. 6301 thru 6308)] (NPS)

Texas Education Code, (Sub Chapter B. Section 88.106) (TFS)

IV. STATEMENT OF MUTUAL BENEFIT:

State and private lands, for which the State of Texas is responsible for protection, and Federal lands for which the Federal government is responsible, are intermingled and adjacent to each other throughout the State of Texas. Emergency incidents and their management, on these lands for which one agency is responsible for may present a threat to, or affect, lands for which the other agency is responsible for.

Management of prescribed fire, wildland fire, or other emergency incidents, on one or another of the parties' land, could require greater resources and expertise than that party can handle. It is in the best interest of each party to have available service from the other party to aid and assist them in management of, preparation for, and response to, these incidents.

It is to the mutual advantage of the State of Texas and the National Park Service to coordinate efforts for prevention, training, detection, and suppression of wildfires; and management and training for other incidents and similar projects, to limit duplication and to improve efficiency and effectiveness.

It is also the intent of the parties to cooperate to obtain and share training, equipment and services related to this MOU when and where possible.

Each party will have the benefit of utilizing personnel and equipment of the other party as available at no cost for the first operational/mutual aid period on wildfires other than optional reimbursement for use of aircraft. The first operational period will generally be defined as ending eight hours after a resource is assigned during initial attack of a wildfire. Generally "no cost" mutual aid may be provided within the defined mutual aid zone.

After the first operational period or for distant responses, federal resources can be maintained/assigned on a fire if they have a ROSS(Resource Ordering and Status System) order, which has an accompanying FIRECODE (Federal accounting number), or if a fiscal related agreement is signed between the cooperating agencies. Cost could be reimbursable if covered under a separate agreement. This MOU is neither a fiscal nor a funds obligation document.

Reimbursement for use of aircraft assigned to an incident may be considered during any time period, if agreed to by cooperating agencies.

V. RESPONSIBILITIES:

1. Each party will designate a contact person for the communications and for implementation of this Memorandum of Understanding.
2. Each party may request prescribed fire management; fire prevention; fire preparedness or other emergency incident management resources from the other as necessary to meet management goals.
3. Each party may, at their discretion and upon mutual consent, participate in prescribed fire management; fire prevention; fire preparedness; and emergency incident management operations of another party, to foster knowledge and experience; and to further cooperation between organizations.
4. Each party will provide for salary or wage costs of its own employees and operate and maintain its own equipment.
5. All personnel shall meet the qualification standards of the National Wildfire Coordinating Group for the positions that they will occupy.
6. Each agency may install the others radio frequency in its radios for use in cooperative activities. All federal licensing requirements will be followed.

7. Big Thicket agrees to designate a NPS employee as a contact person for TFS. The Fire Management Officer or acting shall serve as the primary contact.
8. Big Thicket agrees to provide assistance for fire dispatching, mutual aid (no cross billing) for fire management operations within the mutual aid zone (see map) as staffing and equipment availability permit, and or other professional services.
9. TFS agrees to designate a TFS employee as a contact person for Big Thicket. The Regional Forester, or designee, shall serve as the primary contact.
10. TFS agrees to provide aerial detection, dispatch, professional services, and equipment (i.e. transport vehicle and dozer), when available, to assist the Big Thicket in performing fire management actions (wildfire suppression, prescribed burns, and mutual aid).
11. **TFS and Big Thicket jointly, agree to:**
 - A. Mutually establish reciprocal initial attack zones for lands of intermingled or adjoining protection responsibilities. (See attached maps)
 - B. Participate as mutual cooperators of fire management operations of the TFS or the Big Thicket to foster firefighter knowledge and experience: and to further interagency cooperation.
 - C. During an incident, the highest ranking representative of the party with administrative jurisdiction over the area in which the incident occurs, or his/her designee, will be the Incident Commander and will be responsible for the direction of the incident response efforts. If the incident is first reached by representatives of the other party they will assume the responsibility of Incident Command. When a representative of the party with administrative jurisdiction over the area arrives, the Incident Commander will relinquish the duties of Incident Commander to the representative of the agency with administrative jurisdiction, and will cooperate with that representative in the ongoing incident response efforts. The agency with administrative jurisdiction of the incident may request that a qualified Incident Commander from the other agency retain or assume command of an incident.
 - D. In the event of an incident crossing or threatening to cross jurisdictional boundaries Unified Command should be considered and implemented if warranted.

VI. UTILIZATION OF TFS OWNED DOZER AND TRANSPORT

1. The dozer and transporter unit (**unit**) will be used by either party on an as-needed basis. Scheduling conflicts will be resolved between each primary fire contact.
2. The **unit** will be staffed wholly, or in cooperation with, each party. Drivers and equipment operators will hold appropriate operating licenses to meet Agency, State, and Federal regulations. State or Federal employees may operate each other's vehicles

provided the operator meets the current operating guidelines and training requirements of their own agency.

3. The **unit** can be dispatched to wildfires within the mutual aid zone through the Livingston TFS dispatch center, any dispatch outside of the mutual aid zone will require a request from the Texas Interagency Coordination Center with the appropriate resource order through ROSS and FIRECODE.
4. Modifications to the **unit** may occur only with the consent of the owning party, will henceforth be considered as an integral part not to be removed, and will be completed at the expense of the party performing the modifications unless cost sharing is agreed to by each agency.
5. Routine repair of the **unit** will be performed at TFS facilities by TFS personnel with NPS personnel assistance when needed and available. The NPS will service the **unit** and purchase consumables (fuel, fluids, belts, hoses, batteries, etc.) to maintain operability. The **unit** shall become the responsibility of the borrower, and shall be returned in the same condition as which received, fair wear and tear excepted.

VII. AGREEMENT TERMS

This MOU will remain in force for a period of five years from the date of execution. (Last signature)

VIII. SPECIAL PROVISIONS:

1. This MOU is for the purpose of creating a cooperative effort among the parties, and shall not be construed as obligating funds, staff or other resources of one party or another party. This MOU is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds between the parties of this MOU will be handled by a separate agreement (except as otherwise provided in this document) in accordance with applicable laws, regulations and procedures.
2. This MOU may be modified or amended as necessary upon written consent of all parties or may be terminated by any party with a 60 day written notice to the other parties.
3. Property or equipment provided by one party to another party, pursuant to this agreement remains the property of the providing party, unless a written agreement to the contrary is prepared. Each party will be responsible for its actions, and the actions of its employees. The activities performed under this MOU shall be performed entirely at each parties own risk. Each party releases the other parties from the actions of its own employees. Each party waives all claims against every other party to this agreement for compensation from any loss, damage, personal injury, or death occurring as a performance of this agreement.
4. This agreement may be modified only by a written instrument executed by the parties.
5. Either party may terminate this agreement by providing the other party with sixty (60) days advance written notice. In the event that one party provides the other party with notice of its intention to terminate, the parties shall meet promptly to discuss the reasons for the notice and to try to resolve their differences amicably. The parties commit to

using every reasonable means available, including the use of a neutral mediator if necessary, to try to avoid terminating this agreement.

6. The designated contacts for this MOU are:

- A. Big Thicket National Preserve
Wayne Prokopetz
Superintendent
6044 FM 420
Kountze TX, 77625
409-951-6801

- B. Texas A&M Forest Service
Mark Stanford
Chief, Fire Operations
John B. Connally Building, Suite 304
301 Tarrow Street
College Station, TX 77840-7896
979-458-6507

In Witness Whereof, the parties have caused this Memorandum of Understanding to be executed as of the date of last signature below:

APPROVED:

TEXAS A&M FOREST SERVICE
~~PRESERVE~~

BIG THICKET NATIONAL

BY: Jon A. Boyer 6/8/15 BY: Wayne Prokopetz 6/3/2015
Date Date

**MASTER COOPERATIVE WILDLAND FIRE MANAGEMENT AND STAFFORD ACT
RESPONSE AGREEMENT**

Between

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

New Mexico State Office, BLM Agreement # MOU-NM-2013-NM952-003

NATIONAL PARK SERVICE

Intermountain Region NPS Agreement #F1249150001

BUREAU OF INDIAN AFFAIRS

Southern Plains Region, BIA Agreement # AGB00100007

UNITED STATES FISH AND WILDLIFE SERVICE

(Southwest Region FWS Agreement # 20181-A-J838)

UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

(Region 8- Southern Region USFS-R8 Agreement # 15-FI-11081600-037 specifically National Forests and Grasslands in Texas, Region 8 And

Region 3- Southwestern Region, USFS-R3 Agreement #15-FI-11031600-075 specifically Cibola National Forests and Grasslands and Lincoln National Forest in Texas

STATE OF TEXAS

Texas Parks and Wildlife Department

TPWD Agreement #217855

And

Texas A&M Forest Service

TFS Agreement #CO-15-143

D) By THE FOLLOWING AUTHORITIES:

Reciprocal Fire Protection Act of May 27, 1955, as amended (69 Stat. 66; 42 U.S.C. 1856)
 Disaster Relief Act of May 22, 1974, (42 U.S.C. 5121 as amended)
 Robert T. Stafford Disaster Relief and Emergency Assistance Act (P.L. 93-288)
 Homeland Security Act of 2002 (H.R. 5005-8)
 Homeland Security Presidential Directive-5 (HSPD-5)
 Post-Katrina Emergency Management Reform Act of 2006. (P.L 109-295, 120 Stat. 1355)
 National Indian Forest Resources Management Act (P.L. 101-630, Title III) (Interior Agencies)
 Service First, Section 330 of the Department of the Interior and Related Agencies Appropriations
 Act of 2001, Pub. L. 106-291, 114 Stat. 996, 43 U.S.C. sec. 1701 note, as amended (FS,DOI)
 Department of the Interior and Related Agencies Appropriations Act, 1999, as included in P.L.
 105-277, section 101(e);
 Federal Land Policy and Management Act of Oct. 21, 1976, (P.L.94-579; 43 U.S.C.)(BLM)
 NPS Organic Act (16 U.S.C.1) (NPS)
 National Wildlife Refuge Administration Act of 1966 (16 U.S.C. 668dd-668ee, 80 Stat. 927, as
 amended) (FWS)
 National Wildlife Refuge System Improvement Act of 1997 (P.L. 105-57) (FWS)
 National Forest Management Act of 1976 (16 U.S.C. 1600) (FS)
 US Department of the Interior and Related Agencies Appropriations Acts

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II) PURPOSE

The purpose of this Master Cooperative Wildland Fire Management and Stafford Act Agreement (hereinafter called the Agreement) is to document the commitment of the Parties to this Agreement to improve efficiency by facilitating the coordination and exchange of personnel, equipment, supplies, services, and funds among the Parties to this Agreement in sustaining wildland fire management activities, such as prevention, preparedness, communication and education, fuels treatment and hazard mitigation, fire planning, response strategies, tactics and alternatives, suppression and post-fire rehabilitation and restoration.

In addition to improving efficiency in addressing wildland fire management activities, this agreement facilitates improved coordination regarding other incidents. The National Response Framework (NRF) applies to all Federal departments and agencies that may be requested to provide assistance or conduct operations during all-hazard events. However, this agreement **ONLY** covers all-hazard events that are, or may become, declared as emergencies or major disasters that occur under the auspices of a Presidential Declaration of Emergency or Major Disaster under the Stafford Act, which may include wildland fire management and non-wildland emergencies or major disasters. These events also require a coordinated response by an appropriate combination of State and Tribal entities, along with the Federal Agencies.

This agreement documents the commitment of the Parties to provide cooperation, resources, and support to the Secretary of Homeland Security and Administrator of the Federal Emergency Management Agency (FEMA) in the implementation of the NRF, as appropriate and consistent with their own authorities and responsibilities.

III) PARTIES TO THE AGREEMENT

The Parties to this Agreement are:

The State of Texas, Texas A&M Forest Service, a member of the Texas A&M University, hereinafter called Texas or when referred jointly with other states in this agreement called the "States"; and

The State of Texas, Texas Parks and Wildlife Department, hereinafter referred to as TPWD

The United States Department of Agriculture Forest Service, Southwestern Region, R-3; hereinafter called the "USFS R-3"; and

The United States Department of Agriculture Forest Service, Southern Region, R-8, National Forests and Grasslands in Texas; hereinafter called the "USFS R-8";

The United States Department of the Interior, National Park Service, Intermountain Region, hereinafter called the "NPS"; and

The United States Department of the Interior, Fish and Wildlife Service, Southwestern Region, hereinafter called "FWS"; and

The United States Department of the Interior, Bureau of Indian Affairs, Southern Plains Region, hereinafter called the "BIA"; and

The United States Department of the Interior, Bureau of Land Management, New Mexico State Office, hereinafter called the "BLM" and

The USFS, NPS, FWS, BIA, and the BLM may hereinafter be jointly called the "Federal Agencies."

The Federal Agencies, States, and other entities signatory to this Agreement will hereinafter be referred to as the "Parties to this Agreement."

IV) TERMINOLOGY, EXHIBITS AND SUPPLEMENTS

Words and phrases used herein may have different meanings or interpretations for different readers. To establish a common understanding, some words and phrases as used herein are defined in the Glossary attached as Exhibit A. The hierarchy of terminology will be those defined by statute or regulation, those defined in policy, those defined in this template and then all other agency and interagency documentation.

In the event of a conflict, the applicable definitions for the response type, wildland fire vs Stafford Act responses will take precedence. For wildland fire, that is the NWCG Glossary of Wildland Fire Terminology, found on the "Publications" page of the National Wildfire Coordinating Group web-page (www.nwcg.gov), or by direct link at <http://www.nwcg.gov/pms/pubs/glossary/index.htm>), and Stafford Act Response terminology corresponds to the FEMA NIMS glossary, available at in the NIMS document (downloadable at http://www.fema.gov/pdf/emergency/nims/NIMS_core.pdf).

1. Incorporation of exhibits into Agreement

The following exhibits are hereby incorporated into this Agreement (Note that Exhibit H relates only to Stafford Act responses):

Exhibit A	Glossary of Terms
Exhibit B	Principal Contacts
Exhibit C	Operating Plan Template
Exhibit D	Reimbursable Billings and Payments
Exhibit E	Cost Share Agreement Instructions
Exhibit F	Cost Share Agreement Template
Exhibit G	Supplemental Fire Department Resources Template
Exhibit H	Use and Reimbursement for Stafford Act Shared Resources
Exhibit I	Supplemental Project Agreement Template

Several of the referenced exhibits are intended to be used as templates and as such completion and/or execution of those exhibits do not require formal modification to this Agreement. Also, as necessary, the parties may introduce new or revised exhibits at the geographic, statewide, or sub-

geographic areas as a component of the Operating Plans without necessitating a formal modification to this Agreement, so long as they do not conflict with the provisions of this Agreement.

2. Acknowledgement of supplements to the agreement

Supplements to this Agreement, Operating Plans, Joint Projects and Project Plans, and Cost Share Agreements will further describe working relationships, financial arrangements, and joint activities not otherwise specified under the terms of this Agreement.

3. Hierarchy and precedence for agreements, exhibits, operating plans, etc.

Any inconsistencies in this Agreement and attachments thereto shall be resolved by giving precedence in the following order:

1. This Agreement
2. Geographic or Statewide Operating Plan
3. Sub-geographic (Local) Operating Plan
4. Cost Share Agreements
5. Exhibits to this Agreement
6. Joint Projects, Project Plans, or Supplemental Project Agreements

V) PERIOD OF PERFORMANCE

1. **Commencement/Expiration:** This Agreement shall be effective and in effect for five years, beginning July 1, 2015.
2. **Modifications:** Modifications within the scope of this Agreement shall be made by mutual consent of the Parties to the Agreement, by the issuance of a written modification, signed and dated by all Parties to the Agreement, prior to any changes being performed. No Party is obligated to fund any changes not properly approved in advance.
3. **Termination:** Any party to the Agreement shall have the right to terminate its participation under this Agreement by providing one-year advance written notice to the other Parties.
4. **Annual Review:** If deemed necessary, prior to November 15th) representatives of the Parties to the Agreement will meet and review matters of mutual concern. Operating plans, at all levels, will be reviewed annually. If necessary, operating plans will be revised.
5. **Previous Agreements Superseded:** This Agreement supersedes the following:

List all individual agreement with Texas, USFS and DOI agencies, if applicable.

USFS-R8 Agreement # 10-FI-11081300-001, FWS Agreement # 20181-A-J838, NPS Agreement # F1249100008, BIA Agreement # AGB00100007, BLM Agreement # MOU-NM-2013-NM952-003, TPWD Agreement # 217855, TFS Agreement # CO-10-265.

Existing supplemental agreements and operating plans may remain in effect to the extent that they do not conflict with the provisions of this Agreement, but only until such time that all activities

and conditions covered by those agreements or plans can be incorporated into geographic, statewide, or sub-geographic area operating plans provided for under this Agreement.

VI) RECITALS

1. Lands for which the State are responsible for wildland fire protection in the State of Texas and the lands for which the respective Federal Agencies are responsible, are intermingled or adjacent in some areas, and wildland fires on these intermingled or adjacent lands may present a threat to the lands of the other;
2. The Parties to this Agreement maintain fire protection and fire management organizations;
3. It is to the mutual advantage of the Parties to this Agreement to coordinate efforts for the prevention and detection of, and responses to wildfires, fuels management, suppression, non wildland fire emergencies (as authorized), and cooperative projects for resource and protection objectives in and adjacent to their areas of responsibility, and to limit duplication and improve efficiency and effectiveness;
4. It is the intent of the Parties to this Agreement that State resources be available to assist in fire management activities on all federal lands, and on other lands upon which the Federal Agencies are responsible to protect;
5. It is the intent of the Parties to this Agreement that federal resources be available to assist in fire management activities on all state and private lands the State is responsible to protect.
6. The USFS, BLM, BIA, NPS, and FWS have entered into a national Interagency Agreement for Wildland Fire Management to cooperate in all aspects of fire management.
7. It is noted that local fire resources are often mobilized within a state pursuant to a separate state MOU or agreement with local fire departments or fire organizations, with reimbursement handled according to the terms detailed within that MOU or agreement.
8. It is expected that all federal, state and local agencies will coordinate assistance and operations during Stafford Act responses by following the procedures and requirements established in the National Response Framework (NRF). This agreement documents the commitment of the Parties to provide cooperation, resources, and support to the Secretary of Homeland Security and Administrator of the Federal Emergency Management Agency (FEMA) in the implementation of the NRF, as appropriate and consistent with their own authorities and responsibilities. Some state and local resources are limited by statute to wildland fire response, requiring the governor to specifically approve mobilization outside of their state for non-fire emergencies. State emergency declarations and responses for all hazard and non-Stafford Act responses are outside the scope of this agreement.
9. The Responsibilities of the Parties to this Agreement shall be distinguished as follows:
 - a. **Jurisdictional Agency** - The agency having land and resource management responsibility for a specific geographical or functional area as provided by federal, state

or local law. Under no circumstances may a jurisdictional Agency abdicate legal responsibilities as provided by federal or state law.

- b. **Protecting Agency** - Agency responsible for providing direct incident management within a specific geographical area pursuant to its jurisdictional responsibility or as specified and provide by contract, cooperative agreement, etc.
- c. **Supporting Agency** - An Agency providing suppression or other support and resource assistance to a protecting agency.

In consideration of the mutual commitments and conditions herein made, the parties agree as follows:

VII) INTERAGENCY COOPERATION

- 10. **Texas Multi-Agency Coordinating Group (TMAC Group):** provides coordination and recommendations for all federal interagency fire management activities in the State of Texas east of the 100th meridian. Membership, procedures, and guidelines will be agreed to and documented in the TMAC Group Charter (Memorandum of Understanding and/or Standard Operating Procedures).

Southwest Area Multi-Agency Coordinating Group (SWA MAC Group): provides coordination and recommendations for all federal interagency fire management activities in the State of Texas west of the 100th meridian. Membership, procedures, and guidelines will be agreed to and documented in the SWA MAC Group Charter (Memorandum of Understanding and/or Standard Operating Procedures).

- 11. **National Incident Management System:** The Parties to this Agreement will operate under the concepts defined in the *National Incident Management System (NIMS)*. In implementing these concepts, Parties to this Agreement will be expected to follow the National Wildfire Coordinating Group's (NWCG) minimum standards as defined in the *Wildland Fire Qualifications Systems Guide (PMS-310)*. NWCG recognizes the ability of cooperating agencies at the local level to jointly define and accept each other's qualifications for initial attack, extended attack, fire operations, and prescribed fire. These NWCG minimum standards are NIMS compliant. The following NIMS concepts will be followed as they are implemented: Incident Command System (ICS), qualifications system, training system, the management of publications, and participating in the review, exchange and transfer of technology as appropriate for providing qualified resources, and for the management of incidents covered by this Agreement.
- 12. **Operating Plans:** Operating plans will be developed using Exhibit C, Operating Plan Outline, at the geographic, statewide, or sub-geographic area level, as appropriate, and will tier to this Agreement. Operating Plans may be written for more than one year, but should be reviewed annually, and will be subject to modifications, as warranted. No Operating Plan tiered to this Agreement should be written beyond the expiration date of this agreement. The following operating plans are listed in descending order of precedence:

A. Texas Interagency Coordination Center (TICC) Geographic Area Operating Plan

TICC Geographic Area Operating Plans will address issues affecting Geographic Area-wide cooperation. The Geographic Area Operating Plan will be approved by the signatory State and Federal NWCG member agencies.

The National Interagency Mobilization Guide will be incorporated by reference and be considered part of the Geographic Area Operating Plan.

B. Statewide Operating Plans

Statewide Operating Plans will address issues affecting statewide cooperation. The Statewide Operating Plans will be approved by the signatory State and Federal NWCG members.

The Statewide Mobilization Guides will be identified and considered part of the Statewide Operating Plans.

C. Sub-Geographic (Local) Area Operating Plans (if applicable)

Sub-geographic area operating plans will be developed that outline the details of this Agreement for sub-geographical areas. Unit Administrators will have the responsibility for developing and approving sub-geographic area operating plans. Unless superseded by the Geographic Area or Statewide Operating Plans, sub-geographic area operating plans will apply.

D. Project Plans (if applicable)

Project plans are developed for specific non-suppression, fire related projects or activities. (See related clause: Joint Projects and Project Plans).

13. **Interagency Dispatch Centers:** The Parties to this Agreement agree to maintain, support, and participate in Interagency Dispatch Centers, as appropriate.

Staffing, funding, and level of participation will be agreed to by the affected Parties to this Agreement and documented in geographic, statewide, or sub-geographic area operating plans and/or appropriate mobilization guides.

14. **Texas Interagency Coordination Center (TICC)/Southwest Coordination Center (SWCC):** The Parties to this Agreement recognize the Texas Interagency Coordination Center in Hudson, as the Geographic Area Coordination Center (GACC) for the State of Texas for federal agencies east of the 100th meridian with Alamogordo and Albuquerque dispatch federal resources in West Texas. The Parties to this Agreement will coordinate, mobilize and demobilize emergency management resources through the Geographic Area Coordination Center as appropriate. Parties to this Agreement are not precluded from independent movement of resources.

15. **Interagency Resources:** Interagency funding, staffing, and utilization of resources and facilities will be pursued by the Parties to this Agreement whenever an interagency approach is appropriate and cost effective. Shared staffing and funding will be commensurate with each Parties use of resources, will be agreed to and documented in operating plans, and will be subject to the availability of appropriations.

To the extent practical, additional preparedness resource requests will be coordinated. The coordination process will be identified in the appropriate geographic, statewide, or sub-geographic area operating plan.

16. **State to State response:** Should a State Party to this Agreement intend to utilize the assistance of the Forest Service to seek State reimbursement for amounts expended for resources and services provided to another State for the management and suppression of wildfire, that State shall agree to meet the obligations and requirements, including any reasonable administrative fees, as agreed upon by the State and the Forest Service and detailed in Exhibit D, Reimbursable Billings and Payments. Should a State Party to this Agreement intend to utilize the assistance of the Forest Service to accept the reimbursement amounts expended for resources and services provided from another State, and have the Forest Service pay that amount to the State seeking reimbursement, that State shall agree to meet the associated reimbursement obligations and requirements, including any reasonable administrative fees, as agreed upon by the State and the Forest Service, and detailed in Exhibit D, Reimbursable Billings and Payments.
17. **Standards:** The Parties to this Agreement desire to achieve common standards within the Parties' best interest, recognizing differing agency missions and mandates. Each Party to this Agreement recognizes that other Parties' standards are reasonable, prudent, and acceptable. This clause does not affect the Jurisdictional Agency's land management standards.

VIII) PREPAREDNESS

18. **Protection Planning:** Annually, before October 1, sub-geographic area Unit Administrators will determine efficiencies to be gained from reciprocal assistance and acquisition of protection services. Operating plans will document decisions. Plans should be reviewed and agreement reached concerning such items as placement of crews, engines, air tankers, helicopters, fixed and aerial detection, regulated use, closures and other joint fire suppression efforts.
19. **Protection Areas and Boundaries:** Protection areas, as defined by boundaries, will be mapped and or described, and made a part of geographic, statewide, or sub-geographic area operating plans.
20. **Methods of Fire Protection and Suppression:** One agency may provide fire protection services on lands under the jurisdiction of another, within their authority and as authorized by law. The following are different methods to provide those services:

A. **Reciprocal (Mutual Aid) Fire Protection:** As deemed appropriate, the Agencies may,

by agreement in Operating Plans, establish reciprocal initial attack zones for lands of intermingled or adjoining protection responsibility. Within such zones, a Supporting Agency will, upon request or voluntarily, take initial attack action in support of the Protecting Agency.

The Protecting Agency will not be required to reimburse the Supporting Agency for costs incurred following the initial dispatch of any ground resources to the fire for the duration of the mutual aid period. The length of the mutual aid period should not exceed 24 hours (unless specifically stated agreed upon by separate agreement or contract) and will be documented in the Operating Plan.

B. Reimbursable (Cooperative) Fire Protection: The Protecting Agency may request suppression resources of other Agencies for its protection work. Such resources shall be paid for by the Protecting Agency. *See applicable Exhibit item regarding Reimbursable Billings and Payments.*

C. Exchange (Offset) Fire Protection: Agencies may exchange responsibility for fire protection for lands under their jurisdiction. The rate of exchange will be based upon comparable cost, acreage involved, complexity, and other factors as appropriate and mutually agreed to by the Agencies. Exchange zones will be documented in Operating Plans.

If an imbalance exists, the Protecting Agency with the surplus of acres will bill the Jurisdictional Agency for the difference on a per acre basis as computed under Contract or Fee Basis Protection. Imbalance means a deviation exceeding the range of variation agreed to between the parties.

When a Protecting Agency takes suppression action on lands it protects for the Jurisdictional Agency, and the Jurisdictional Agency is requested to assist, the Protecting Agency will reimburse the Jurisdictional Agency for their assistance. The exception is if the parties involved are Federal wildland fire Agencies. The National Interagency Agreement for Wildland Fire Management between the Department of the Interior wildland fire agencies and the USDA Forest Service provides that the parties agree not to bill each other for suppression services.

D. Contract (Fee Basis) Fire Protection: For an agreed upon fee, one Agency may assume fire protection responsibilities on lands under the jurisdiction of another Agency. The terms and conditions of such arrangements must be included in Operating Plans and carried out through an appropriate procurement document.

21. **Joint Projects and Project Plans:** The Parties to this Agreement may jointly conduct cooperative projects, within their authority and as authorized by law, to maintain or improve their fire management services and activities. These projects may involve such activities as prescribed fire/fuels management, preparedness, fire analysis/planning, rehabilitation, training, prevention, public affairs, and other beneficial efforts in support of interagency fire management. Such projects will be documented in separate, local agreements, or other appropriate written documents, executed by the authorized signatories of the involved

parties. This may include a Supplemental Project Agreement, as in Exhibit I. or other written document.

22. **Fire Prevention:** The Parties to this Agreement agree to cooperate in the development and implementation of fire prevention programs. Unit Administrators will ensure that fire prevention goals and activities are planned at local levels and are addressed in the appropriate operating plans. Specific fire prevention plans should be developed by local interagency fire management personnel. The Parties to this Agreement may pool resources and share costs. Unit Administrators are encouraged to participate in local fire prevention cooperatives, organizations, or groups, where applicable.
23. **Public Use Restrictions:** Guidelines for implementing restrictions and closures shall be established by a separate MOU or agreement, and/or in an Operating Plan.
24. **Burning Permits:** Burning permit procedures, where applicable, will be included in local operating plans. If authorized by State and Federal law, federal employees or their agents may be granted authority by the States to issue burn permits when it is determined to be in their mutual interest.
25. **Prescribed Fire and Fuel Management:** The Parties to this Agreement agree to cooperate in the development and implementation of planned ignitions, prescribed fire and fuels management programs.

Any Party to this Agreement may provide assistance to another Party as requested and agreed to for the purposes of performing planned ignitions, prescribed fire or other fuels management work. Conditions of the assistance and details related to reimbursement will be agreed to and documented through the procurement or joint projects and project plans (as referenced in Joint Projects and Project Plans, Clause #21). Any instrument processed under this clause shall be in accordance with each Party's applicable laws, regulations, and policy requirements.

26. **Smoke Management:** Within their authorities, the Parties to this Agreement agree to cooperate in smoke management efforts for wildfires and prescribed fires. The need for air resource advisors is increasing and additional technical expertise may be available through State air quality and regulatory agencies. The State may facilitate the request and utilization of state air regulatory agencies as resource advisors during any wildfire and prescribed fire incident that could benefit from such additional technical expertise.

IX) OPERATIONS

27. **Closest Forces Concept:** The guiding principle for dispatch of initial attack suppression resources is to use the closest available and appropriate resource regardless of which Party owns or controls the resources, and regardless of which Agency has protection responsibility.
28. **Fire Notifications:** Each Party will promptly notify the appropriate protecting Agency of fires burning on or threatening lands for which that Agency has protection responsibility.

Likewise, protecting Agencies will promptly inform jurisdictional agencies whenever they take action on fires for which the protecting Agency is responsible. Fire reports will be sent to jurisdictional agencies within the timeframes established in the applicable Operating Plan, Agreement or Memorandum of Understanding.

29. **Boundary Line Fires:** A boundary line fire, as defined in Exhibit A, Glossary of Terms, will be the initial attack responsibility of the protecting Agencies on either side of the boundary. Neither Agency will assume the other Agency is aware of the fire or that the other Agency will take action. Each Agency will make every reasonable effort to communicate with the other concerning the fire. When protecting agencies have arrived, the agencies will mutually agree to the designation of an Incident Command organization.
30. **Independent Action:** Except as otherwise limited in geographic, statewide, or sub-geographic area operating plans, nothing herein shall prohibit any Party, on its own initiative, from going upon lands known to be protected by another Party to this Agreement to engage in suppression of wildfires, when such fires are a threat to lands under that Party's management or protection responsibility. In such instances, the Party taking action will promptly notify the Protecting Agency. Such actions will be commensurate with the land management considerations of the Jurisdictional Agency, and subject to the laws and regulations of the Jurisdictional Agency.
31. **Escaped Prescribed Fires:** Wildfires resulting from escaped prescribed fires that were ignited by, managed at the direction of, or under the supervision of one of the Parties to this Agreement shall be the responsibility of the Jurisdictional Agency. If the Parties to this Agreement jointly conduct or manage a prescribed fire, the responsibility for suppression costs, should it escape, shall be agreed upon and documented in the Project Plan. Unless otherwise agreed, all suppression costs and associated damages are the responsibility of the Jurisdictional Agency. The Parties to this Agreement will not hold each other responsible under this clause for escaped prescribed fires originating on private land, or on state or federal lands not protected by one of the Parties to this Agreement.
32. **Response to Wildland Fire:** All fire suppression action conducted by one party on lands of another Party shall be consistent with the jurisdictional agency's fire management policy, preplanned objectives for the area in which the fire occurs, and the terms of this Agreement.

A "Special Management Considerations" section in the Operating Plan, addressing resources and other management concerns, will be used by Unit Administrators of the Agencies to identify areas of special management consideration, and to communicate appropriate fire management actions and any restrictions on firefighting tactical techniques to an Incident Commander.

Unless otherwise agreed, the Jurisdictional Agency will provide an Agency representative or appropriate environmental technical specialist to advise a Protecting Agency of any special management considerations that may influence suppression action. The Incident Commander will incorporate special management considerations into the incident planning process, subject to the delegation of authority.

Each Operating Plan must address how the entities will handle cost-sharing for wildland fires that spread to another jurisdiction. Entities should recognize that, as in the “Guidance for Implementation of Federal Wildland Fire Management Policy (2009)”, a wildland fire may concurrently be managed for one or more objectives. Additionally, objectives can change as the fire spreads across the landscape, affected by changes in environmental conditions, human influence, and institutional factors. Simply stated, some portions of a wildland fire may receive a protection objective while other portions are managed for multiple objectives, and those portions and objectives might change at some time over the duration of the event. The intent should never be to allow a wildland fire to burn onto a jurisdiction that does not want it. All parties should be involved in developing the strategy and tactics to be used in preventing the fire from crossing the jurisdictional boundary, and all parties should be involved in developing mitigations that would be used if the fire crosses jurisdictional boundaries.

33. **Delegation of Authority:** Operating plans will document procedures and criteria for Unit Administrators to specify direction, authority, and financial management guidelines to Incident Commanders.
34. **Preservation of Evidence:** As initial action is taken on a fire, the initial attack forces will preserve information and evidence pertaining to the origin and cause of the fire. Protecting and Jurisdictional Agencies shall render mutual assistance in the gathering of evidence to the fullest extent practicable. Affected Parties to this Agreement will meet to determine an appropriate investigation process.
35. **Stafford Act Response:** For Stafford Act responses, procedures and requirements established in the National Response Framework (NRF) shall be utilized by Parties to this Agreement to authorize and accomplish any required response or support tasks. Any Party requesting support pursuant to a Stafford Act response shall issue written instructions and funding limitations to any Party providing cooperation, resources or support. Mobilization activities will be accomplished utilizing established dispatch coordination concepts pursuant to the current National Interagency Mobilization Guide.

X) USE AND REIMBURSEMENT OF INTERAGENCY FIRE RESOURCES

36. **Appropriated Fund Limitation:** Nothing in this Agreement shall require the Parties to this Agreement to obligate or expend funds, or require the United States, the State of Texas, or the other Parties to this Agreement to enter into any contract or other obligation for the future payment of money in excess of or in advance of appropriated funds available for payment to meet the commitments of this Agreement and modifications thereto, except as specifically authorized by law.
37. **Length of Assignments:** Consideration must be given to the health and safety of personnel when assigned to fires. The Parties to this Agreement agree that Incident Commanders will release suppression resources to their primary responsibilities as soon as priorities allow. Incident Commanders shall adhere to work/rest policies specified within the National Interagency Mobilization Guide.

38. **Cost Share Agreement:** Whenever multiple jurisdictions are affected due to the location of a fire, it is mandatory to develop and implement a Cost Share Agreement (or Apportionment Process, if applicable). The Operating Plan must address how the Parties to this Agreement will handle cost-sharing for wildland fires that spread to another jurisdiction. Acceptable forms of the cost share mix are limited to those listed in item #10 of Exhibit F, Cost Share Agreement. Except as otherwise provided by Clauses 27 (Independent Action), and 43 (Billing Procedures), a cost share agreement will be approved by the responsible Unit Administrators (as defined in Exhibit A, Glossary of Terms) or their authorized representatives when the incident involves lands of more than one protecting Agency (see Clause 26, Boundary Line Fires, and Exhibit F, Cost Share Agreement).

A Cost Share Agreement that addresses temporary support functions or facilities may be developed to document cost sharing, especially at times of high fire danger or activity.

39. **Procurement:** At the time of the incident, the affected agencies will determine the appropriate procurement procedures that will be utilized.
40. **Licensing:** Drivers and equipment operators will hold appropriate operating licenses to meet state and federal laws and employing agency regulations and policies. Employees of the Parties to this Agreement may operate each other's vehicles provided the operator is qualified by the current operating guidelines and training requirements of their own Agency. Driving and operating equipment will be for official purposes only.
41. **Text Messaging While Driving:** In accordance with Executive Order (EO) 13513, "Federal Leadership on Reducing Text Messaging While Driving," any and all text messaging by Federal employees is banned: a) while driving a Government owned vehicle (GOV) or driving a privately owned vehicle (POV) while on official Government business; or b) using any electronic equipment supplied by the Government when driving any vehicle at any time. All cooperators, their employees, volunteers, or contractors are encouraged to adopt and enforce policies that ban text messaging when driving company owned, leased or rented vehicles or GOVs when driving while on official Government business or when performing any work for or on behalf of the Government.
42. **Training:** The Parties to this Agreement will cooperate to assure that training needs are provided that will produce safe and effective fire management and aviation programs. The intent is to champion high quality training, to minimize training costs by sharing resources, and to standardize training.
43. **Communication Systems:** The Parties to this Agreement may mutually agree to allow one another the use of communications systems such as radio frequencies, computer system access, data transmission lines, and communication sites when there is a mutual benefit to the Parties to this Agreement. Such agreement shall be approved only by Agency authorized personnel and in accordance with agency laws, regulations and policies governing security of systems and facilities.
44. **Fire Weather Systems:** The Parties to this Agreement will cooperate in the gathering,

processing, and use of fire weather data, including the purchase of compatible sensing systems and the joint use of computer software. All such use shall be in accordance with applicable Federal, State, and local laws, software and other applicable licenses. The Parties to this Agreement will jointly evaluate and agree to any deletions or additions to the system. The common and agreed upon fire danger rating system for the TICC Geographic Area is the National Fire Danger Rating System (NFDRS).

The Parties to this Agreement agree to cooperate and coordinate the utilization of Incident Meteorologist (IMET) services to support responses to wildfires, as described within the Interagency Agreement for Meteorological and Other Technical Services (IMET Agreement) between the National Weather Service (NWS) and the federal Wildland Fire Agencies. The Parties shall follow the provisions described in the IMET Agreement, along with the procedures detailed within the Operating Plan for this Agreement.

45. **Aviation Operations:** The Parties to this Agreement agree to cooperate in the use of aviation resources to foster effective and efficient use of aircraft and personnel. (Refer to the both the Southwest and Southern Area Geographic Area Operating Plan for specific direction in the use of aircraft.)
46. **Billing Procedures:** Specifics detailed in Exhibit D, Reimbursable Billings and Payments.
47. **Cost Recovery:** Authority to recover suppression costs and damages from those responsible for causing a fire varies depending on contracts, agreements, permits and applicable laws. As soon as possible after a fire, the Authorized Representatives of affected Parties will attempt to reach mutual agreement on the strategy that will be used to recover suppression costs and damages from the individuals responsible for such costs and damages. If possible, all costs should be determined prior to the initiation of cost recovery efforts. Such strategy may alter interagency billing procedures, timing and content as otherwise provided in this Agreement. Any Party may independently pursue civil actions against individuals to recover suppression costs and damages, though adequate notice should be provided the other Parties to the Agreement. In those cases where costs have been recovered from an individual, reimbursement of initial attack, as well as suppression costs to the extent included in the recovery, will be made to the Party taking reciprocal action.
48. **Stafford Act Use and Reimbursement:** The Use and Reimbursement for resources when responding under the Stafford Act shall be governed by the provisions contained in Exhibit H.

XI) GENERAL PROVISIONS

49. **Personnel Policy:** Employees of the Parties to this Agreement shall be subject to the personnel rules, laws and regulations of their respective agencies, unless they are employed temporarily by another Party to this Agreement and the authority under which such temporary employment is authorized provides that such employees shall be subject to the employing Party's personnel laws and regulations.

50. **Supplemental Fire Department Resources:** There are situations when additional support personnel are necessary for national mobilization and the need can be filled by supplemental personnel available to the fire district. When this situation arises resources will be mobilized via the process outlined in Exhibit G.
51. **Mutual Sharing of Information:** Subject to applicable state and Federal rules and regulations, including the Privacy Act, Parties to this Agreement may furnish to each other, or otherwise make available upon request, such maps, documents, GIS data, instructions, records, and reports including, but not limited to, fire reports, employment records, and investigation reports as either Party considers necessary in connection with the Agreement.
52. **Record Retention:** All records related to this Agreement should be retained by the Parties in accordance with agency regulations and policies, but no less than 3 years from date of the expiration or termination. If any litigation, claim, negotiation, audit or other action involving the records has been started by a Party to the agreement, that Party should provide notification to any other Party to the agreement of the need to retain records until the litigation, claim, negotiation, audit or other action is resolved.
53. **Accident Investigations:** When an accident occurs involving the equipment or personnel of a supporting Agency, the protecting Agency shall immediately notify the jurisdictional and supporting agencies. As soon as practical, the protecting Agency shall initiate an investigation of the accident. The investigation shall be conducted by a team made up of representatives from affected Agencies, as appropriate.
54. **Purchaser, Contractor, Operator, Permittee, Etc., Fires:** The Protecting Agency will notify the Jurisdictional Agency of any fire suspected to have been caused by a purchaser, contractor, operator or permittee, etc., of the Jurisdictional Agency as soon as it becomes aware of the situation. The Protecting Agency will be responsible for management of the fire under the provisions of this Agreement. Parties to the Agreement will meet and confer to determine a cost recovery process as outlined in Cost Recovery clause.
55. **Waiver of Claims:** Parties to the Agreement shall each be responsible for their own losses arising out of the performance of this Agreement, and each Party hereby waives any claim against any other Party for loss or damage of its property and/or personal injury or death of its employees or agents occurring as a consequence of the performance of this Agreement; provided, this provision shall not relieve any Party from responsibility for claims from third parties for losses for which the Party is otherwise legally liable. This waiver does not extend to ordinary expenses incurred as part of the cost of the fire (gloves, fuses, hose, etc.). This provision pertains to claims between the respective State and Federal Agencies and does not pertain to claims advanced by third parties.

Claims requesting compensation for property loss or damage, personal injury, or death resulting from the negligence or other wrongful acts of employees performing under this Agreement will be received by the jurisdictional agency and forwarded to the hiring, or home agency of the allegedly negligent employee for processing.

Employee claims for loss of or damage to personal property must be submitted to the

Jurisdictional Agency and then forwarded to the hiring, or home agency of the employee for processing in accordance with the hiring agency's administrative procedures.

56. **Equipment, Supplies, Cache Items:** There is recognition that wildland fire suppression will often involve the use of equipment, supplies and cache items. Equipment, supplies and cache items checked out (such as pumps, hoses, nozzles, etc.), or supplied by one Party and received by another Party, shall become the responsibility of the receiving/supporting Party. Equipment, supplies and cache items shall be returned in the same condition as when received, reasonable wear and tear excepted. Notwithstanding the general Waiver of Claims clause, the parties agree that the Receiving/supporting Party shall repair or reimburse for damage in excess of reasonable wear and tear, and shall replace or reimburse items lost or destroyed, except for damage occurring as a result of negligence by the receiving/supporting Party. The receiving/supporting party will replace or reimburse for items lost, destroyed, or expended with items of like or similar standard from the fire cache or supply unit on the incident, or via an authorization for replacement using a unique request number. Insurance or other reimbursement options should be pursued, if such options are available, prior to replacement or reimbursement for lost, stolen or destroyed items.
57. **Transported Equipment:** Equipment transported or operated by Supporting Agency personnel in transit to or from an incident is considered under the control of the Supporting Agency. When arrangements are made with a transportation service provider to deliver equipment, the party making arrangements for the transportation should ensure that the transportation service provider will be responsible for all loss and damage to equipment or supplies consigned on the bill of lading.
58. **Authorized Representatives:** By signature below, all signatories to this agreement certify that the individuals (Agency Representative, Agency Administrator, Unit Administrator) listed in this document are authorized to act in their respective areas for matters related to this Agreement.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the last date written below

USDOJ FISH AND WILDLIFE SERVICE
Southwest Region

USDOJ NATIONAL PARK SERVICE
Intermountain Region

Regional Director
Date: _____

Regional Director
Date: _____

Contracting Officer FWS-19072
Date: _____

Contracting Officer
Date: _____

USDOJ BUREAU OF LAND MANAGEMENT
AFFAIRS
New Mexico State Office

USDOJ BUREAU OF INDIAN
Southern Plains Region

State Director
Date: _____

Regional Director
Date: _____

Contracting Officer
Date: _____

Contracting Officer
Date: _____

USDA FOREST SERVICE
National Forests & Grasslands in Texas

STATE OF TEXAS
Texas A&M Forest Service

Mark E. Van Every

Forest Supervisor
Date: 7/29/15

Director and State Forester
Date: _____

Vicki R. Taylor

Agreements Specialist
Date: 07/27/2015

Agreements Coordinator
Date: _____

USDA FOREST SERVICE
Southwestern Region

STATE OF Texas -Texas Parks and
Wildlife Division

Regional Forester
Date: _____

Director of TPWD
Date: _____

Agreements Specialist
Date: _____

Agreements Coordinator
Date: _____

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the last date written below

USDOI FISH AND WILDLIFE SERVICE
Southwest Region

USDOI NATIONAL PARK SERVICE
Intermountain Region

ACTING *Jay E. Nikolopoulos*
Regional Director
Date: 07/27/2015

Regional Director
Date: _____

Contracting Officer FWS-19072
Date: _____

Contracting Officer
Date: _____

USDOI BUREAU OF LAND MANAGEMENT
AFFAIRS
New Mexico State Office

USDOI BUREAU OF INDIAN
Southern Plains Region

State Director
Date: _____

Regional Director
Date: _____

Contracting Officer
Date: _____

Contracting Officer
Date: _____

USDA FOREST SERVICE
National Forests & Grasslands in Texas

STATE OF TEXAS
Texas A&M Forest Service

Forest Supervisor
Date: _____

Director and State Forester
Date: _____

Vicki R. Taylor
Agreements Specialist
Date: 07/27/2015

Agreements Coordinator
Date: _____

USDA FOREST SERVICE
Southwestern Region

STATE OF Texas -Texas Parks and
Wildlife Division

Regional Forester
Date: _____

Director of TPWD
Date: _____

Agreements Specialist
Date: _____

Agreements Coordinator
Date: _____

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the last date written below

USDOI FISH AND WILDLIFE SERVICE
Southwest Region

USDOI NATIONAL PARK SERVICE
Intermountain Region

Regional Director
Date: _____

Regional Director
Date: _____

Contracting Officer FWS-19072
Date: _____

Contracting Officer
Date: _____

USDOI BUREAU OF LAND MANAGEMENT
~~AGREEMENTS~~
New Mexico State Office

USDOI BUREAU OF INDIAN
Southern Plains Region

Aden L. Seidling, Acting
State Director

Regional Director
Date: _____

Date: 8/3/15

Maria Salas-Waldo
Contracting Officer

Contracting Officer
Date: _____

Date: 7/30/15

USDA FOREST SERVICE
National Forests & Grasslands in Texas

STATE OF TEXAS
Texas A&M Forest Service

Forest Supervisor
Date: _____

Director and State Forester
Date: _____

Viola K 1
Agreement Signatory
Date: 7.2.15

Agreements Coordinator
Date: _____

USDA FOREST SERVICE
Southwestern Region

STATE OF Texas -Texas Parks and
Wildlife Division

Regional Forester
Date: _____

Director of TPWD
Date: _____

Agreements Specialist
Date: _____

Agreements Coordinator
Date: _____

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the last date written below

USDOJ FISH AND WILDLIFE SERVICE
Southwest Region

USDOJ NATIONAL PARK SERVICE
Intermountain Region

Regional Director
Date: _____

Acting
Janna Joss
Regional Director
Date: *7/22/15*

Contracting Officer FWS-19072
Date: _____

TRISH FLOREZQUEZ - HERNANDEZ
Contracting Officer
Date: _____
CONTRACTING OFFICER
NATIONAL PARK SERVICE

USDOJ BUREAU OF LAND MANAGEMENT
AFFAIRS
New Mexico State Office

USDOJ BUREAU OF INDIAN
Southern Plains Region

State Director
Date: _____

Regional Director
Date: _____

Contracting Officer
Date: _____

Contracting Officer
Date: _____

USDA FOREST SERVICE
National Forests & Grasslands in Texas

STATE OF TEXAS
Texas A&M Forest Service

Forest Supervisor
Date: _____
Vicki R. Taylor
Agreements Specialist
Date: *07/01/2015*

Director and State Forester
Date: _____
Agreements Coordinator
Date: _____

USDA FOREST SERVICE
Southwestern Region

STATE OF Texas - Texas Parks and
Wildlife Division

Regional Forester
Date: _____

Director of TPWD
Date: _____

Agreements Specialist
Date: _____

Agreements Coordinator
Date: _____

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the last date written below

USDOI FISH AND WILDLIFE SERVICE
Southwest Region

USDOI NATIONAL PARK SERVICE
Intermountain Region

Regional Director
Date: _____

Regional Director
Date: _____

Contracting Officer FWS-19072
Date: _____

Contracting Officer
Date: _____

USDOI BUREAU OF LAND MANAGEMENT
AFFAIRS
New Mexico State Office

USDOI BUREAU OF INDIAN
Southern Plains Region

State Director
Date: _____

Regional Director
Date: _____

Contracting Officer
Date: _____

Contracting Officer
Date: _____

USDA FOREST SERVICE
National Forests & Grasslands in Texas

STATE OF TEXAS
Texas A&M Forest Service

Forest Supervisor
Date: _____

Director and State Forester
Date: 7-30-15

Vicki R. Taylor
Agreements Specialist
Date: 07/27/2015

Agreements Coordinator
Date: _____

USDA FOREST SERVICE
Southwestern Region

STATE OF Texas -Texas Parks and
Wildlife Division

Regional Forester
Date: _____

Director of TPWD
Date: _____

Agreements Specialist
Date: _____

Agreements Coordinator
Date: _____

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the last date written below

USDOJ FISH AND WILDLIFE SERVICE
Southwest Region

Regional Director
Date: _____

Contracting Officer FWS-19072
Date: _____

USDOJ BUREAU OF LAND MANAGEMENT
AFFAIRS
New Mexico State Office

State Director
Date: _____

Contracting Officer
Date: _____

USDA FOREST SERVICE
National Forests & Grasslands in Texas

Forest Supervisor
Date: _____

Vicki R. Taylor
Agreements Specialist
Date: 07/27/2015

USDA FOREST SERVICE
Southwestern Region

Regional Forester
Date: _____

Agreements Specialist
Date: _____

USDOJ NATIONAL PARK SERVICE
Intermountain Region

Regional Director
Date: _____

Contracting Officer
Date: _____

USDOJ BUREAU OF INDIAN
AFFAIRS
Southern Plains Region

Regional Director
Date: _____

Contracting Officer
Date: _____

STATE OF TEXAS
Texas A&M Forest Service

Director and State Forester
Date: _____

Agreements Coordinator
Date: _____

STATE OF Texas -Texas Parks and
Wildlife Division Department

Carter Smith
Director of TPWD Carter Smith
Date: 27 July 2015

Agreements Coordinator David Riskind
Date: 7.27.15

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the last date written below

USDOI FISH AND WILDLIFE SERVICE
Southwest Region

USDOI NATIONAL PARK SERVICE
Intermountain Region

Regional Director
Date: _____

Regional Director
Date: _____

Contracting Officer FWS-19072
Date: _____

Contracting Officer
Date: _____

USDOI BUREAU OF LAND MANAGEMENT
AFFAIRS
New Mexico State Office

USDOI BUREAU OF INDIAN
Southern Plains Region

State Director
Date: _____

ACTING

Regional Director
Date: 9-8-15

Contracting Officer
Date: _____

Contracting Officer
Date: 9/8/2015

USDA FOREST SERVICE
National Forests & Grasslands in Texas

STATE OF TEXAS
Texas A&M Forest Service

Forest Supervisor
Date: _____

Director and State Forester
Date: _____

Agreements Specialist
Date: 07/27/2015

Agreements Coordinator
Date: _____

USDA FOREST SERVICE
Southwestern Region

STATE OF Texas -Texas Parks and
Wildlife Division

Regional Forester
Date: _____

Director of TPWD
Date: _____

Agreements Specialist
Date: _____

Agreements Coordinator
Date: _____

**MASTER COOPERATIVE WILDLAND FIRE MANAGEMENT AND STAFFORD ACT
RESPONSE AGREEMENT**

Exhibit A

Glossary

Agencies: Federal agencies that have direct fire management or land management responsibilities or that have programs and activities that support fire management activities.

Agency: A division of government with a specific function offering a particular kind of assistance. In ICS, agencies are defined either as jurisdictional (having statutory responsibility for incident management) or as assisting or cooperating (providing resources or other assistance).

Agency Administrator: The official responsible for the management of a geographic unit or functional area.

Agency Representative: A person assigned by a primary, assisting, or cooperating Federal, State, local, or tribal government agency or private entity that has been delegated authority to make decisions affecting that agency's or organization's participation in incident management activities following appropriate consultation with the leadership of that agency.

Area: The lands in a described geographic area that are managed and/or protected by the Parties within this Agreement.

Area Command (Unified Area Command): An organization established (1) to oversee the management of multiple incidents that are each being handled by an ICS organization or (2) to oversee the management of large or multiple incidents to which several Incident Management Teams have been assigned. Area Command has the responsibility to set overall strategy and priorities, allocate critical resources according to priorities, ensure that incidents are properly managed, and ensure that objectives are met and strategies followed. Area Command becomes Unified Area Command when incidents are multijurisdictional. Area Command may be established at an Emergency Operations Center (EOC) facility or at some location other than an ICP.

Boundary Line Fire: Fire occurrences on lands of intermingled and/or adjoining protection responsibilities.

Closest Forces Concept: Dispatch of the closest available initial attack suppression resources regardless of which agency owns or controls them, and regardless of which agency has protection responsibility.

Confine: restrict the wildfire within determined boundaries, established either prior to, or during the fire. These identified boundaries will restrict the fire, with no action being taken to put the fire out.

Contain: restrict a wildfire to a defined area, using a combination of natural and constructed barriers that will stop the spread of the fire under the prevailing and forecasted weather conditions, until out.

Control: aggressively fight a wildfire through the skillful use of personnel, equipment, and aircraft to establish firelines around a fire to halt the spread and, to extinguish all hot spots, until out.

Controlled burn: synonymous with Prescribed Fire.

Cost Share Agreement: A document prepared to distribute costs on a multi jurisdictional incident (see Exhibit F).

Direct costs: Direct costs are those items of expense specifically identified with the delivery or completion of a project or program. Examples include, but are not limited to, personnel costs (salary and fringe benefits), equipment costs, travel, materials, supplies, and contracts.

Direct Protection Area: That area which, by law or identified or authorized pursuant to the terms of this Agreement, is provided protection by the Parties. This may include land protected under exchange or payment for protection.

Disaster: See Major Disaster.

Emergency: As defined by the Stafford Act, an emergency is “any occasion or instance for which, in the determination of the President, Federal assistance is needed to supplement State and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States.”

Emergency Support Function (ESF): Used by the Federal Government and many State governments as the primary mechanism at the operational level to organize and provide assistance. ESFs align categories of resources and provide strategic objectives for their use. ESFs utilize standardized resource management concepts such as typing, inventorying, and tracking to facilitate the dispatch, deployment, and recovery of resources before, during, and after an incident.

Escaped Prescribed Fire: a prescribed fire that has exceeded or is expected to exceed prescription parameters or otherwise meets the criteria for conversion to wildfire. The criteria are specified in “Interagency Prescribed Fire – Planning and Implementation Procedures Reference Guide”.

ESF Primary Agency: A Federal agency with significant authorities, roles, resources, or capabilities for a particular function within an Emergency Support Function of the National Response Framework. A Federal agency designated as an ESF primary agency serves as a Federal Executive Agent under the Federal Coordinating Officer (or Federal Resource Coordinator for non-Stafford Act incidents) to accomplish the ESF mission.

Extended Attack: Actions taken on a wildfire that has exceeded the initial response.

Federal: Of or pertaining to the Federal Government of the United States of America.

Fee Basis Acquisition of Services: One agency provides fire management services on the lands under the jurisdiction of another and payment is provided for the service. For a given fee, one agency can become the protecting agency for the other. The fee (or cost) is the price for the work agreed to be performed on each acre of land.

Fire Management Activities and/or Services: Any or all activities that relate to managing fire or fuels on lands under the jurisdiction of any agency to this Agreement. Activities include, but are not limited to: suppression, prescribed fire/fuels management, fire analysis/planning, rehabilitation, training, prevention, public affairs, post-fire rehabilitation, and restoration activities in fire management.

Geographic Area Coordination Center (GACC): The physical location of an interagency, regional operation center for the effective coordination, mobilization and demobilization of emergency management resources.

Geographic Area Coordinating Group (GACG): interagency regional fire management bodies.

Hazard: Something that is potentially dangerous or harmful, often the root cause of an unwanted outcome.

Hazard Mitigation: Any cost-effective measure which will reduce the potential for damage to a facility from a disaster event.

Hazardous Material: For the purposes of ESF #1, hazardous material is a substance or material, including a hazardous substance, that has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and which has been so designated (see 49 CFR 171.8). For the purposes of ESF #10 and the Oil and Hazardous Materials Incident Annex, the term is intended to include hazardous substances, pollutants, and contaminants as defined within the National Oil and Hazardous Substances Contingency Plan, known as the National Contingency Plan (NCP). See 40 C.F.R. Part 400 for additional information).

Incident Command System (ICS): A standardized, on-scene emergency management construct specifically designed to provide for the adoption of an integrated organizational structure that reflects the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries. ICS is the combination of facilities, equipment, personnel, procedures, and communications operating with a common organizational structure, designed to aid in the management of resources during incidents. ICS is used for all kinds of emergencies and is applicable to small as well as large and complex incidents. ICS is used by various jurisdictions and functional agencies, both public and private, or organized field-level incident management operations.

Incident Commander (IC): The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and release of resources. The IC has

overall authority and responsibility for managing and conducting incident operations.

Incident Management Team (IMT): The Incident Commander and appropriate Command and General Staff personnel assigned to an incident.

Indirect Costs: Indirect costs are those items of expense incurred as part of general management and administrative support of an organization. These costs are not attributable to a specific project, program or output, but are distributed among many benefiting activities. Often they are proposed as a percentage of direct project costs and are referred to as administrative costs, overhead, or burden. Examples may include office space, computer equipment, postage, utilities, salaries for administrative activities, such as procurement, personnel, accounting, and so forth. Direct charging of these costs, however, may be appropriate if they can be specifically identified to a project or program and the nature of the work performed creates a unique need or requires an extensive amount of support. These situations are considered “unlike circumstances”.

Infrastructure: The manmade physical systems, assets, projects, and structures, publicly and/or privately owned, that are used by or provide benefit to the public. Examples of infrastructure include utilities, bridges, levees, drinking water systems, electrical systems, communications systems, dams, sewage systems, and roads.

Initial Attack Zone: An identified area in which predetermined resources would normally be the initial resource to respond to an incident.

Jurisdictional Agency: The agency having land and resource management responsibility for a specific geographical or functional area as provided by federal, state or local law.

Initial Action: the actions taken by the first resources to arrive at a wildfire.

Initial Attack: the first aggressive response to a wildland fire based on values to be protected, benefits of response, and reasonable cost of response.

In-Kind Donations: Donations other than cash (usually materials or professional services) for disaster survivors.

Interagency: coordination, collaboration, communication among cooperating agencies.

Land/Resource Management Plan (L/RMP): a document prepared with public participation and approved by an agency administrator that provides general guidance and direction for land and resource management activities for an administrative area. The L/RMP identifies the need for fire’s role in a particular area and for a specific benefit. The objectives in the L/RMP provide the basis for the development of fire management objectives and the fire management program in the designated area.

Major Disaster: As defined by the Stafford Act, any natural catastrophe (including any hurricane, tornado, storm, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought) or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President

causes damage of sufficient severity and magnitude to warrant major disaster assistance under this act to supplement the efforts and available resources of States, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.

Mission Assignment: The mechanism used to support Federal operations in a Stafford Act major disaster or emergency declaration. It orders immediate, short-term emergency response assistance when an applicable State or local government is overwhelmed by the event and lacks the capability to perform, or contract for, the necessary work.

Mitigation: Activities designed to reduce or eliminate risks to persons or property or to lessen the actual or potential effects or consequences of an incident. Mitigation measures may be implemented prior to, during, or after an incident. Mitigation measures are often developed in accordance with lessons learned from prior incidents. Mitigation involves ongoing actions to reduce exposure to, probability of, or potential loss from hazards. Measures may include zoning and building codes, floodplain buyouts, and analysis of hazard-related data to determine where it is safe to build or locate temporary facilities. Mitigation can include efforts to educate governments, businesses, and the public on measures they can take to reduce loss and injury.

Mobilization: The process and procedures used by all organizations—Federal, State, local, and tribal—for activating, assembling, and transporting all resources that have been requested to respond to or support an incident.

National: Of a nationwide character, including the Federal, State, local, and tribal aspects of governance and policy.

National Incident Management System (NIMS): The *National Incident Management System* (NIMS) provides a systematic, proactive approach to guide departments and agencies at all levels of government, nongovernmental organizations, and the private sector to work seamlessly to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment. NIMS works hand in hand with the *National Response Framework* (NRF). NIMS provides the template for the management of incidents, while the NRF provides the structure and mechanisms for national-level policy for incident management.

National Response Framework (NRF): The *National Response Framework* (NRF) guides how the Nation conducts all-hazards response. The Framework documents the key response principles, roles, and structures that organize national response. It describes how communities, States, the Federal Government, and private-sector and nongovernmental partners apply these principles for a coordinated, effective national response. And it describes special circumstances where the Federal Government exercises a larger role, including incidents where Federal interests are involved and catastrophic incidents where a State would require significant support. It allows first responders, decision makers, and supporting entities to provide a unified national response.

NWCG: National Wildfire Coordinating Group; the NWCG is an interagency, intergovernmental body that establishes operational fire management standards and procedures such as qualification and certification protocols, allocation or resources protocols, equipment standards, training programs.

Offset: Exchange of fire protection services in specific locations that is anticipated to be of approximately equal value between Agencies.

Operating Plan: A document reviewed annually, updated as necessary, and authorized by the appropriate officials for implementing the Cooperative Wildland Fire Management and Stafford Act Response Agreement in their respective areas of responsibilities.

Party: An entity that is signatory to this Agreement.

Planned Ignition: The intentional initiation of a wildland fire by management actions to meet specific objectives.

Preparedness: Activities that lead to a safe, efficient, and cost effective fire management program in support of land and resource management objectives through appropriate planning and coordination.

Prescribed Fire: Any fire intentionally ignited by management actions in accordance with applicable laws, policies, and regulations to meet specific objectives.

Prevention: Activities directed at reducing the incidence of fires, including public education, law enforcement, personal contact and reduction of fuel hazards (fuels management).

Procurement Documents: Agency specific documents for acquisition of goods or services that include financial obligation.

Protecting Agency: Agency responsible for providing direct incident management within a specific geographical area pursuant to its jurisdictional responsibility or as specified and provide by contract, cooperative agreement, etc.

Protection: The actions taken to mitigate the adverse effects of fire on environmental, social, political, economic, and community values at risk.

Protection Area: That area for which a particular fire protection organization has the primary responsibility for attacking an uncontrolled fire and for directing the suppression actions.

Protection Boundaries: The exterior perimeter of an area within which a specified fire agency has assumed a degree of responsibility for wildland fire control.

Protection Boundaries: Mutually agreed upon boundaries which identify areas of direct incident protection responsibility and are shown on maps in the annual operating plans.

Reciprocal Fire Protection: The act of helping a neighboring protecting Agency through written agreement for mutual aid in furnishing fire protection, which includes personal services and equipment required for fire prevention, the protection of life and property from fire, and fire fighting. Reciprocity is attained by agreeing among agencies regarding the kind, location and numbers of firefighting resources which will automatically be made available as part of the initial

response to a wildfire, regardless of the protecting Agency. The kind, locations, and numbers of resources which constitute reciprocity are defined in or through local operating plans.

Reconciliation process: The process for tracking incidents for all Parties to this Agreement for the purpose of issuing one annual billing for each paying Party.

Recovery: The development, coordination, and execution of service- and site-restoration plans for impacted communities and the reconstitution of government operations and services through individual, private-sector, nongovernmental, and public assistance programs that: identify needs and define resources; provide housing and promote restoration; address long-term care and treatment of affected persons; implement additional measures for community restoration; incorporate mitigation measures and techniques, as feasible; evaluate the incident to identify lessons learned; and develop initiatives to mitigate the effects of future incidents.

Reimbursable Assistance (Assistance by Hire): Incident resources that will be paid for by the requesting Protecting Agency pursuant to this Agreement and its geographic, statewide, or sub-geographic operating plans. Excludes Mutual Aid.

Reimbursable Costs: All costs associated with operations and support ordered on a resource order or under a Joint Project or Project Plan by or for an incident or project within the provisions of this Agreement.

Resources: Personnel and major items of equipment, supplies, and facilities available for assignment to incident operations and for which status is maintained. Resources are described by kind and type and may be used in operational support or supervisory capacities at an incident or at an Emergency Operations Center (EOC).

Response: Activities that address the short-term, direct effects of an incident. Response includes immediate actions to save lives, protect property, and meet basic human needs. Response also includes the execution of emergency operations plans and of incident mitigation activities designed to limit the loss of life, personal injury, property damage, and other unfavorable outcomes. As indicated by the situation, response activities include: applying intelligence and other information to lessen the effects or consequences of an incident; increased security operations; continuing investigations into the nature and source of the threat; ongoing public health and agricultural surveillance and testing processes; immunizations, isolation, or quarantine; and specific law enforcement operations aimed at preempting, interdicting, or disrupting illegal activity, and apprehending actual perpetrators and bringing them to justice.

Response to wildland fire: the mobilization of the necessary services and responders to a fire based on ecological, social, and legal consequences, the circumstances under which a fire occurs, and the likely consequences on firefighter and public safety and welfare, natural and cultural resources, and values to be protected.

Stafford Act response: the mobilization of the necessary services and resources to a request from FEMA under the provisions of the Stafford Act and based on the procedures and requirements established in the National Response Framework (NRF).

State: Any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and any possession of the United States. (As defined in section 2(14) of the Homeland Security Act of 2002, Public Law 107-296, 116 Stat. 2135, et seq. (2002).)

Strategic: Strategic elements of incident management are characterized by continuous, long-term, high-level planning by organizations headed by elected or other senior officials. These elements involve the adoption of long-range goals and objectives, the setting of priorities, the establishment of budgets and other fiscal decisions, policy development, and the application of measures of performance or effectiveness.

Sub-Object Class Code: Detailed codes used by the Federal Government to record its financial transactions according to the nature of services provided or received when obligations are first incurred.

Supplemental Fire Department Resources: Overhead tied to a local fire department generally by agreement who are mobilized primarily for response to incidents/wildland fires outside of their district or mutual aid zone. They are not a permanent part of the local fire organization and are not required to attend scheduled training, meetings, etc. of the department staff.

Supporting Agency: An agency providing suppression or other support and resource assistance to a protecting agency.

Suppression: Management action to extinguish a fire or confine fire spread beginning with its discovery.

Threat: An indication of possible harm, or danger.

Tribe: Any Indian tribe, band, nation, or other organized group or community, including any Alaskan Native Village as defined in or established pursuant to the Alaskan Native Claims Settlement Act (85 Stat. 688) [43 U.S.C.A. and 1601 et seq.], that is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

Unified Command: An application of ICS used when there is more than one agency with incident jurisdiction or when incidents cross political jurisdictions. Agencies work together through the designated members of the Unified Command to establish their designated Incident Commanders at a single Incident Command Post and to establish a common set of objectives and strategies and a single Incident Action Plan.

Unit Administrator (Line Officer): The individual assigned administrative responsibilities for an established organizational unit, such as Forest Supervisors or District Rangers for the Forest Service, District Manager for the Bureau of Land Management, Area Forester, District Forester, or State Forester as designated for the State Forest Service, Agency Superintendent for the Bureau of Indian Affairs, Park Superintendent for the National Park Service, and Refuge Manager (Project Leader) for Fish and Wildlife Service. May also include managers for a Tribe, State, County or local government entity.

United States: The term “United States,” when used in a geographic sense, means any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, any possession of the United States, and any waters within the jurisdiction of the United States. (As defined in section 2(16) of the Homeland Security Act of 2002, Public Law 107-296, 116 Stat. 2135, et seq. (2002).)

Unplanned Ignition: The initiation of a wildland fire that was unplanned, regardless of cause.

Wildfire: An unplanned, unwanted wildland fire including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the fire out.

Wildland Fire: Any non-structure fire that occurs in vegetation or natural fuels. Wildland fire includes prescribed fire and wildfire.

Wildland Urban Interface (WUI): The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetation fuels.

**MASTER COOPERATIVE WILDLAND FIRE MANAGEMENT AND STAFFORD ACT
RESPONSE AGREEMENT**

Exhibit B

Principal Contacts

PRINCIPAL CONTACTS. The principal contacts for this instrument are as follows. These points of contact will review this instrument at least annually.

Bureau of Indian Affairs, Southern Plains Regions
Mark E. Sahmaunt
Forester
P.O. Box 368
Anadarko, OK 73007
Phone: 405-247-1587
FAX:
E-Mail: mark.sahmaunt@bia.gov

Bureau of Land Management, NM State Office
Shanna Miller
Incident Business Specialist
301 Dinosaur Trail
Santa Fe, NM 87508
Phone:
FAX: 505-954-2194
E-Mail: sgmillier@blm.gov

Forest Service, Southern Region, R8
Peter M. Goetzinger
Forest Fire Management Officer
2221 North Raguet Street
Lufkin, TX 75904
Phone: 936-639-8543
FAX: 936-639-8588
E-Mail: pgoetzinger@fs.fed.us

Forest Service, Southwest Region, R3
Billy Zamora
333 Broadway SE
Albuquerque, NM 87102
Phone: 505-842-3388
FAX:
E-Mail: bzamora@fs.fed.us

National Park Service
Brent Woffinden
Deputy Regional Fire Management Officer
P.O. Box 728
Santa Fe, NW 87504
Phone: 505-988-6018
FAX:
E-Mail: brent_i_woffinden@nps.gov

State Of Texas, Texas A&M Forest Service
Mark Stanford
Fire Chief- Associate Director
200 Technology Way, Suite 1162
College Station, TX 77845
Phone: 979-458-6507
FAX: 979-458-7347
E-Mail: mstanford@tfs.tamu.edu

Texas Parks and Wildlife Department
Jeff Sparks
State Parks Wildland Fire Program Manager
12016 FM 848
Tyler, TX 75707
Phone: 903-566-5698
FAX:
E-Mail: jeff.sparks@tpwd.state.tx.us

U.S. Fish and Wildlife Service
Loren DeRosear
Regional Fire Management Coordinator
P.O Box 1306
Albuquerque, NM 87103
Phone: 505-248-6848
FAX: 505-248-6475
E-Mail: loren_derosear@fws.gov

**MASTER COOPERATIVE WILDLAND FIRE MANAGEMENT AND STAFFORD
ACT RESPONSE AGREEMENT**

EXHIBIT C

Operating Plan Template

Between

**TEXAS A&M FOREST SERVICE,
DOI BUREAU OF LAND MANAGEMENT,
DOI FISH & WILDLIFE SERVICE,
DOI NATIONAL PARK SERVICE,
DOI BUREAU OF INDIAN AFFAIRS,
AND
USDA FOREST SERVICE, REGION 3 &
REGION 8 – NATIONAL FORESTS & GRASSLANDS IN TEXAS**

This Operating Plan is hereby made and entered into by and between the parties pursuant to the Master Cooperative Wildland Fire Management and Stafford Act Response Agreement (Agreement) signed and dated September 9, 2015 and effective July 1, 2015. This Operating Plan, inclusive of any referenced attachments or exhibits, is tiered to the Agreement. A formal modification to the Agreement is unnecessary, but shall not contradict the Agreement.

All portions of this Operating Plan should be addressed. State if any item is not applicable, but do not remove the item. To facilitate review of this Operating Plan, do not change the format or delete sections. Items may be added as necessary to each of the sections.

II. PURPOSE

This is a Texas Multi-Agency Coordinating (TMAC) Group and Southwest Area Multi-Agency Coordination (SWA MAC) Group Operating Plan applicable to all signatory parties within the State of Texas. Its purpose is to address statewide issues affecting cooperation, interagency working relationships and protocols, financial arrangements, sharing of resources, and joint activities/projects. The SACC/SWCC and National Mobilization Guides are considered part of this Operating Plan, accordingly.

III. RECITALS

Stafford Act responses and related National Response Framework activities will be accomplished utilizing established dispatch coordination concepts. Situation and damage assessment information will be transmitted through established fire suppression intelligence channels.

Jurisdictional Agencies are responsible for all planning documents, i.e. land use, resource and fire

management plans and decision support documents, for a unit's wildland fire and fuels management program.

Protecting Agencies implement the actions documented and directed by the appropriate planning documents and decision support documents for initial and extended attack on wildfire incidents. They provide the supervision and support including operational oversight, direction and logistical support to Incident Management Teams.

IV. INTERAGENCY COOPERATION

- A. Interagency Dispatch Centers:** The primary coordination center for the State of Texas will be the Texas A&M Forest Service (TFS/State) owned Texas Interagency Coordination Center (TICC), located at Hudson. Use is authorized on a continuous, year-round basis. In addition, during periods of high fire danger or increased activity, the Forest Service may temporarily increase staffing to meet the needs of the situation. TICC will be staffed by State employees and/or Forest Service employees as needed. Federal agencies west of the 100th meridian within the State of Texas use Alamogordo and Albuquerque (Southwest Coordination Center – SWCC) for dispatch of federal resources. The Parties to this Agreement will coordinate, mobilize and demobilize emergency management resources through the Interagency Dispatch Center as appropriate. Parties to this Agreement are not precluded from independent movement of resources.
- B. Interagency Resources:** All agencies will maintain separate and individual initial attack resources. Agencies' resources will be available to assist the other in all fire management related activities. During periods of extended high fire danger resources may be co-located as deemed necessary.
- C. Standards:** Texas Multi-Agency Coordinating Group (TMAC Group): provides coordination and recommendations for all federal interagency fire management activities in the State of Texas east of the 100th meridian. Membership, procedures, and guidelines will be agreed to and documented in the TMAC Group Charter (Memorandum of Understanding and/or Standard Operating Procedures).

Southwest Area Multi-Agency Coordinating Group (SWA MAC Group): provides coordination and recommendations for all federal interagency fire management activities in the State of Texas west of the 100th meridian. Membership, procedures, and guidelines will be agreed to and documented in the SWA MAC Group Charter (Memorandum of Understanding and/or Standard Operating Procedures).
- D. Drivers Licenses:** Drivers and equipment operators will hold appropriate operating licenses to meet State and Federal laws. Employees of Parties to this Agreement may operate each other's vehicle provided that operator meets the current operating guidelines and training requirements of their own Party.

V. PREPAREDNESS

- A. Protection Planning:** Agencies will maintain responsibility for protection of lands under their jurisdiction. Closest forces concept will be used when appropriate.
- B. Protection Areas and Boundaries:** Federal agencies will have protection responsibility for lands under their management within the State of Texas. The Texas A&M Forest Service will have protection responsibility for all non-federal lands within the State of Texas.
- C. Methods of Fire Protection and Suppression:**
 - **Reciprocal (Mutual Aid) Fire Assistance:** Non-reimbursable fire protection will be provided by all agencies when fires occur on lands under the responsibility of one agency, but threatening the other agency, or if ownership isn't immediately known. Reciprocal protection will generally be limited to lands within one mile of the property line on the four national forests and the two national grasslands in Texas. Resources will charge to their established ABCD job code until the non-billable mutual aid period is met, at which time they will convert to the established job code for the incident. Maps depicting areas under reciprocal protection will be maintained at each dispatch office and at TICC and SWCC.
 - All requests for assistance will be processed through the State and Forest Service coordinators at TICC.
 - The requesting agency agrees to assume responsibility for making necessary arrangements and paying all expenses for lodging and meals for personnel from the sending agency.
 - Air tactical resources will be utilized on a reimbursable basis on all fires, regardless of reciprocal status of the fire.
 - **Acquisition of Services:** All areas that are not under reciprocal protection will be managed according to cooperative protection standards. Assistance from the agency that does not have protection responsibility will be reimbursable. However, if the fire is controlled with initial attack forces within the first 24 hours, there will be no charges or reimbursement by either agency.

There are currently no areas in Texas that fall under offset or fee basis rules.

- D. Joint Projects and Project Plans:** If any of the federal agencies and the state agencies wish to engage in joint cooperative projects, such as prescribed fire/fuels management, preparedness, fire analysis/planning, rehabilitation, training, prevention, public affairs, and other beneficial efforts in support of interagency fire management, a Supplemental Fire Project Agreement (as outlined in Exhibit I of the Agreement) will be prepared.
- E. Fire Prevention:** Each agency will retain rights to limit public use on lands under their jurisdiction. Whenever feasible agencies should coordinate the implementation of restrictions together so there is consistency in a given area.

- F. Public Use Restrictions:** Each agency will follow their individual policies concerning burning permits on lands under their jurisdiction. When feasible, agencies should coordinate the implementation of restrictions for consistency in a given area.
- G. Prescribed Fire (Planned Ignitions) and Fuels Management:** Information concerning prescribed fire or other fuels management projects will be coordinated at TICC/SWCC. State dispatch offices will be notified each day concerning prescribed burns that are being conducted.
- H. Smoke Management:** Prescribed burns will comply with state smoke management guidelines as determined by the Texas Commission on Environmental Quality (TCEQ).

VI. OPERATIONS

A. Fire Notifications:

1. When the Forest Service takes sole action on fires that threaten or involve private lands the following information will be provided to the State:
 - a. Location
 - b. Suppression action taken. This information will be furnished as soon as possible after the action is taken, or at least later on the same day of the fire occurrence. The appropriate State dispatch office will be notified, as well as the State representative at TICC.
2. When the State takes sole action on fires that threaten federal lands the following information will be provided to the jurisdictional agency:
 - a. Location
 - b. Suppression action taken. This information will be furnished as soon as possible after the action is taken, or at least later on the same day of the fire occurrence. The agency dispatcher or contact will be notified.
3. Official Records - For fires occurring partly or entirely on private lands and suppressed solely by the Forest Service, State Form FCD-6 will be completed and mailed to the appropriate Regional Fire Coordinator within one week after the fire.

- B. Boundary Line Fires:** A fire threatening the reciprocal area boundary may be considered a fire within the reciprocal boundary at the discretion of the agency or State officer in charge. Standard fire notification procedures will be followed.
- C. Independent Action on Lands Protected by Another Agency:** Each agency may take independent action in reciprocal areas on any lands under protection responsibility of the other agency.

D. Response to Wildland Fire:

1. Special Management Considerations:

- On National Forest (NF) designated Wilderness areas, the use of mechanical equipment will not be undertaken except with advance approval of the Regional Forester, on a case-by-case basis. Locations of NF wilderness areas are available on maps maintained at each dispatch office and at TICC.

E. Decision Process: For fires which are expected to exceed initial attack capabilities all parties involved with lands involved will meet to develop and document decisions regarding suppression strategies and tactical actions that are cost efficient and consider loss and benefit to land, values-at-risk, resource, social and political values, and existing legal statutes.

F. Cooperation: Pre-season meeting should be held to discuss areas which require a higher priority protection. Values at risk would be identified and ranked in order of priority. This would help set priority in the event that multiple fire starts occurred at the same time and required prioritization. The group should also identify those areas requiring fuels treatment/mitigation for future analysis.

G. Communication/Cost Efficiency: Local level of communication is required. Communications should occur prior to fire seasons and during the early stages of wildland fires. Agencies managing fires, especially those with multiple objectives, should consider: fire fighter and public safety, predicted weather conditions, resource drawdown, proximity to values at risk, smoke, current and anticipated fire activity and time of season. Neighboring jurisdictions should provide prompt notification to agencies when concerns exist about fires that are managed strategically and have the potential to impact adjacent jurisdictions. Response is control / immediate suppression.

The appropriate management response (Confine, Contain and Control) will be selected for each incident. In the event that the fire will impact adjacent jurisdictions, all parties will be asked to participate in the development of the Wildland Fire Decision Support System (WFDSS).

Communication level is with locals to state, forming unified command early in response, ensuring local priorities are reflected. Using the Unified Command Landowner Liaison Program, including Texas & Southwestern Cattle Raisers Association, Texas Sheep & Goat Raisers' Association to insure input from large area landowners.

H. Delegation of Authority: In the event that overhead teams are called in to stage, or to assume control of an incident, the agency with protection responsibility will prepare the delegation of authority and WFDSS for the incident commander.

I. Preservation of Evidence: Evidence will be preserved in accordance with applicable

Agency regulations and policies.

- J. Resource Advisors:** Each agency reserves the right to assign a resource advisor to coordinate suppression actions on lands under their jurisdiction.

VII. USE AND REIMBURSEMENT OF INTERAGENCY FIRE RESOURCES

- A. Cost Share Agreement (Cost Share Methodologies):** The type of cost share methodology utilized will vary according to a great variety of environmental, resource, tactical, political, and other considerations. The following factors should be discussed in order to clarify how such factors will influence the ultimate selection of a cost share methodology for any given wildland fire.
- The cost-sharing methodologies that will be utilized should wildfire spread to a neighboring jurisdiction in a location where fire is not wanted.
 - The cost-share methodologies that will be used should a jurisdiction accept or receive a wildland fire and manage it for multiple objectives.
 - Any distinctions in what cost-share methodology will be used if the reason the fire spreads to another jurisdiction is attributed to a strategic decision, versus environmental conditions (weather, fuels, and fire behavior) or tactical considerations (firefighter safety, resource availability) that preclude stopping the fire at jurisdictional boundaries. Examples of cost-sharing methodologies may include, but are not limited to, the following:
 - When a wildland fire that is being managed for multiple objectives spreads to a neighboring jurisdiction because of strategic decisions, and in a location where fire is not wanted, the managing jurisdiction may be responsible for wildfire suppression costs.
 - In those situations where weather, fuels or fire behavior of the wildland fire precludes stopping at jurisdiction boundaries, cost-share methodologies may include, but are not limited to:
 - a. each jurisdiction pays for its own resources – fire suppression efforts are primarily on jurisdictional responsibility lands,
 - b. each jurisdiction pays for its own resources – services rendered approximate the percentage of jurisdictional responsibility, but not necessarily performed on those lands,
 - c. cost share by percentage of ownership,
 - d. cost is apportioned by geographic division or percent of effort. Examples of geographic divisions are: Divisions A and B (using a map as an attachment); privately owned property with structures; or specific locations such as campgrounds,
 - e. reconciliation of daily costs (for larger, multi-day incidents). This method relies upon daily agreed to costs, using Incident Action Plans or other means to determine multi-Agency contributions. Reimbursements must be followed up by a final bill.
- B. Training:** Interagency training opportunities can be made available. This can include, but is not limited to the annual fire refresher, wildfire academies, and in house training.

Each agency agrees to operate under National Incident Management System (NIMS) standards as developed by the National Wildfire Coordinating Group (NWCG).

State employees will adhere to the Wildland Fire Qualifications Systems Guide (PMS 310-1) and the U.S. Forest Service employees will adhere to the Forest Service Fire and Aviation Management Qualifications Guide. Each agency will accept the qualifications system used by the other agency.

- C. **Communication Systems:** Radios for inter-agency communications will be installed at the following locations:

State: Henderson, Woodville, Livingston
USFS: Hudson

To enhance communications, radio stations may be added, deleted or relocated by mutual agreement between representatives of both agencies. Each agency may install the other's radio frequency in its radios for use in cooperative activities. All federal licensing requirements will be followed.

All headquarters and/or dispatch centers of both agencies will have commercial telephone service.

When it becomes necessary for either agency to operate radio equipment belonging to the other agency, all operating procedures of the agency owning the equipment will be followed.

Each agency will maintain its own radios and will cooperate to the fullest extent in maintaining efficient communications between the agencies.

Radio communication will be maintained between patrol planes and State Dispatchers and Forest Service Dispatchers.

- D. **Fire Weather Systems:** The State and the federal agencies will share information from RAWS stations owned and/or operated by each respective agency.
- E. **Incident Meteorological (IMET) Services:** The procedures shall be made in accordance with the provisions of the Interagency Agreement for Meteorological and Other Technical Services (IMET Agreement), and shall not conflict with the procedures of the Mobilization Guides. Reimbursement and expenditures for IMET Services shall follow the procedures detailed within the IMET Agreement.
- F. **Aviation Operations:** Direction provided in the National Forests & Grasslands in Texas Aviation Management and Safety Plan, and the Texas A&M Forest Service Aviation Management Plan will be followed.

VIII. BILLING PROCEDURES (Refer to Exhibit D of the Master Coop Agreement - Reimbursable Billings and Payments)

A. Suppression Billing:

- 1) Billing information, provide:
 - Agency name and billing address
 - Financial Contact (name, phone, email)
 - Agency DUNS
- 2) Billing timeframes – Provide contact information for written request for extensions beyond timeframes established in Reimbursable Billings and Payments, Exhibit D.
- 3) Indirect Cost Rates, if applicable
- 4) Identify a process for handling any supplemental billing information, summary data or additional billing documentation. Such supplemental billing information, summary data or additional billing documentation may be requested and provided if agreed upon by the Parties. The process should include:
 - A) Points of Contact
 - B) Process for handling requests,Any standardized reports information

B. Fee Based Services – billings will be in accordance with separate written agreement or contract(s).

C. Non-Suppression Billings:

As described in this Operating Plan, the parties may jointly conduct cooperative projects and/or share resources to carry out non-suppression activities in support of interagency fire management. These joint projects or activities may involve sharing of costs and/or a transfer of funds between the parties involved, at which time a separate, local agreement, procurement, or other appropriate written document will be required. Billing will be defined under the terms of that document.

D. Stafford Act Billings

- 1) Refer to Exhibit H of the Master Coop Agreement – Use of and Reimbursement for Shared Resources in Stafford Act Response Actions
- 2) Billing timeframes – Provide contact information and process required for any written request for extensions beyond timeframes established in Exhibit H.

IX. GENERAL PROVISIONS

A. Principal Contacts: Refer to Exhibit B of Master Coop Agreement – Principal Contacts. Complete and add to this Operating Plan.

B. Modification: Modifications within the scope of this Operating Plan shall be made by mutual consent of the Parties, through the issuance of a written modification signed and

dated by all Parties prior to any changes being performed. Any Party shall have the right to terminate their participation under this Operating Plan by providing one year advance written notice to the other Parties.

C. **Annual Review:** This Operating Plan is reviewed annually by May 30 and revised, as needed.

D. **Duration of Operating Plan:** This Operating Plan is executed as of July 1, 2015 and remains in effect through June 30, 2020 unless modified or superseded.

If the current Master Coop Agreement is superseded by a new Agreement, this Operating Plan may remain in effect to the extent that it does not conflict with provisions of the new Agreement, but only until such time that all activities and conditions can be incorporated into a new Operating Plan.

E. **Previous Instruments Superseded:** List, as applicable.

F. **Authorized Representatives:** By signature below, all signatories to this Operating Plan certify that the individuals listed in this document are authorized to act in their respective areas for matters related to this Operating Plan.

X. REVIEW AND SIGNATURES

The Statewide Operating Plans will be approved by the signatory State and Federal TMACG and SWA MAC Group members.

Unit Administrators will have the responsibility for developing and approving sub-geographic area operating plans.

Each signatory agency may have policies/procedures for entering into agreements (including this Operating Plan) that require additional review by attorneys, agreement specialists, or contracting officers.

USDOI FISH AND WILDLIFE SERVICE
Southwest Region

USDOI NATIONAL PARK SERVICE
Intermountain Region

Regional Director
Date: _____

Regional Director
Date: _____

Contracting Officer FWS-19072
Date: _____

Contracting Officer
Date: _____

USDOI BUREAU OF LAND MANAGEMENT
AFFAIRS
New Mexico State Office

USDOI BUREAU OF INDIAN
Southern Plains Region

State Director
Date: _____

Regional Director
Date: _____

Contracting Officer

Date: _____

USDA FOREST SERVICE
National Forests & Grasslands in Texas

Mark E. Van Every

Forest Supervisor

Date: _____

Vicki R. Taylor

Agreements Specialist

Date: 07/27/2015

USDA FOREST SERVICE
Southwestern Region

Regional Forester

Date: _____

Agreements Specialist

Date: _____

Contracting Officer

Date: _____

STATE OF TEXAS
Texas A&M Forest Service

Director and State Forester

Date: _____

Agreements Coordinator

Date: _____

Contracting Officer

Date: _____

USDA FOREST SERVICE
National Forests & Grasslands in Texas

Forest Supervisor

Date: _____

Victor R. Taylor
Agreements Specialist
Date: 07/27/2015

USDA FOREST SERVICE
Southwestern Region

S. Watts

Regional Forester

Date: 8-20-15

Carmin M. Munday
Agreements Specialist
Date: 8/17/2015

Contracting Officer

Date: _____

STATE OF TEXAS
Texas A&M Forest Service

Director and State Forester

Date: _____

Agreements Coordinator

Date: _____

dated by all Parties prior to any changes being performed. Any Party shall have the right to terminate their participation under this Operating Plan by providing one year advance written notice to the other Parties.

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Unit Administrators will have the responsibility for developing and approving sub-geographic area operating plans.

Each signatory agency may have policies/procedures for entering into agreements (including this Operating Plan) that require additional review by attorneys, agreement specialists, or contracting officers.

USDOJ FISH AND WILDLIFE SERVICE
Southwest Region

ACTING *Jay E. Nicholas*
Regional Director
Date: AUG 05 2015

Contracting Officer FWS-19072
Date: _____

USDOJ BUREAU OF LAND MANAGEMENT
AFFAIRS
New Mexico State Office

State Director
Date: _____

USDOJ NATIONAL PARK SERVICE
Intermountain Region

Regional Director
Date: _____

Contracting Officer
Date: _____

USDOJ BUREAU OF INDIAN
AFFAIRS
Southern Plains Region

Regional Director
Date: _____

dated by all Parties prior to any changes being performed. Any Party shall have the right to terminate their participation under this Operating Plan by providing one year advance written notice to the other Parties.

C. **Annual Review:** This Operating Plan is reviewed annually by May 30 and revised, as needed.

D. **Duration of Operating Plan:** This Operating Plan is executed as of July 1, 2015 and remains in effect through June 30, 2020 unless modified or superseded.

If the current Master Coop Agreement is superseded by a new Agreement, this Operating Plan may remain in effect to the extent that it does not conflict with provisions of the new Agreement, but only until such time that all activities and conditions can be incorporated into a new Operating Plan.

E. **Previous Instruments Superseded:** List, as applicable.

F. **Authorized Representatives:** By signature below, all signatories to this Operating Plan certify that the individuals listed in this document are authorized to act in their respective areas for matters related to this Operating Plan.

X. REVIEW AND SIGNATURES

The Statewide Operating Plans will be approved by the signatory State and Federal TMACG and SWA MAC Group members.

Unit Administrators will have the responsibility for developing and approving sub-geographic area operating plans.

Each signatory agency may have policies/procedures for entering into agreements (including this Operating Plan) that require additional review by attorneys, agreement specialists, or contracting officers.

USDOJ FISH AND WILDLIFE SERVICE
Southwest Region

USDOJ NATIONAL PARK SERVICE
Intermountain Region

Regional Director
Date: _____

Regional Director
Date: _____

Contracting Officer FWS-19072
Date: _____

Contracting Officer
Date: _____

USDOJ BUREAU OF LAND MANAGEMENT
~~AFFAIRS~~
New Mexico State Office

USDOJ BUREAU OF INDIAN
Southern Plains Region

Alan L. Leibelitz, Acting

State Director
Date: 8/3/15

Regional Director
Date: _____

Guadalupe Valdez

Contracting Officer

Date: 7/30/15

USDA FOREST SERVICE
National Forests & Grasslands in Texas

Forest Supervisor

Date: _____

Vicki R T

Agreement

Date: _____ 15

USDA FOREST SERVICE
Southwestern Region

Regional Forester

Date: _____

Agreements Specialist

Date: _____

Contracting Officer

Date: _____

STATE OF TEXAS
Texas A&M Forest Service

Director and State Forester

Date: _____

Agreements Coordinator

Date: _____

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USDOI FISH AND WILDLIFE SERVICE
Southwest Region

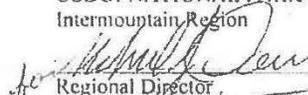
Regional Director
Date: _____

Contracting Officer FWS-19072
Date: _____

USDOI BUREAU OF LAND MANAGEMENT
AFFAIRS
New Mexico State Office

State Director
Date: _____

USDOI NATIONAL PARK SERVICE
Intermountain Region



Regional Director
Date: 8/3/15

Contracting Officer
Date: 3/3/15

USDOI BUREAU OF INDIAN
Southern Plains Region

Regional Director
Date: _____

Contracting Officer

Date: _____

USDA FOREST SERVICE
National Forests & Grasslands in Texas

Forest Supervisor

Date: _____

Victor R. Taylor

Agreements Specialist
Date: 07/27/2015

USDA FOREST SERVICE
Southwestern Region

Regional Forester

Date: _____

Agreements Specialist

Date: _____

Contracting Officer

Date: _____

STATE OF TEXAS
Texas A&M Forest Service

Paul S. Boyer

Director and State Forester

Date: 7-30-15

Agreements Coordinator

Date: _____

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Unit Administrators will have the responsibility for developing and approving sub-geographic area operating plans.

Each signatory agency may have policies/procedures for entering into agreements (including this Operating Plan) that require additional review by attorneys, agreement specialists, or contracting officers.

USDOJ FISH AND WILDLIFE SERVICE
Southwest Region

USDOJ NATIONAL PARK SERVICE
Intermountain Region

Regional Director
Date: _____

Regional Director
Date: _____

Contracting Officer FWS-19072
Date: _____

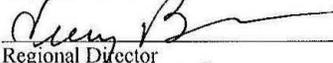
Contracting Officer
Date: _____

USDOJ BUREAU OF LAND MANAGEMENT
AFFAIRS
New Mexico State Office

USDOJ BUREAU OF INDIAN
Southern Plains Region

State Director
Date: _____

ACTING



Regional Director
Date: 7-8-15

Contracting Officer

Date: _____

USDA FOREST SERVICE
National Forests & Grasslands in Texas

Forest Supervisor

Date: _____

Victor R. Taylor

Agreements Specialist
Date: 07/27/2015

USDA FOREST SERVICE
Southwestern Region

Regional Forester

Date: _____

Agreements Specialist

Date: _____

[Signature]

Contracting Officer

Date: 9/8/2015

STATE OF TEXAS
Texas A&M Forest Service

Director and State Forester

Date: _____

Agreements Coordinator

Date: _____

**MASTER COOPERATIVE WILDLAND FIRE MANAGEMENT AND STAFFORD ACT
RESPONSE AGREEMENT**

Exhibit D

Reimbursable Billings and Payments

I. Suppression Billings

- A. The Forest Service, Bureau of Land Management, Bureau of Indian Affairs, National Park Service, and Fish and Wildlife Service will not bill each other for suppression costs. However, pre-suppression costs, fair sharing for interagency dispatch centers costs, prevention costs, and other fire management costs will be billed in accordance with existing agreements or other written documents.
- B. Parties to this Agreement may opt to use a "Reconciliation Process" for tracking incident costs for all Parties to this Agreement for the purpose of issuing one annual billing to the paying Party. If the Reconciliation Process is not utilized, parties to the Agreement shall utilize the applicable Incident by Incident process.

1. **Reconciliation Process:** State and Federal agencies agree to consolidate billing and minimum balances.

All Texas costs of fires occurring in and out of Texas regardless of jurisdictional boundary, will be compiled based on each agencies' costs. A reconciliation balance sheet will be developed and billed as one consolidated amount. This cost tracking method will reduce actual payments and ensure that a fair division of suppression costs can be made between the federal agencies and the state in a timely fashion. Agency and cooperator costs are identified by fire number and code and tracked on an annual balance sheet. Federal balance sheets (and State balance sheets depending on funding laws) must align with a single fiscal year. A final division of cost responsibilities based on jurisdiction, minimum thresholds and cost share agreements will be negotiated by [mddd] of each year.

Minimum Billing Threshold is [\$XX – insert agreed upon amount] and applies to all fires included in this process. It does not apply to out-of-state responses. The minimum threshold does not apply to costs for cooperating fire departments under a separate agreement with the state when working outside their jurisdictional boundary or requested by a resource order for extended attack.

The [agency] will be responsible for managing the balance sheet which includes all agencies' costs and cost share information. Actual costs are tracked by each agency for each incident. Agency actual costs are subject to audit procedures identified in item #, Audit Procedures. The balance sheet is verified but may be disputed based on the cost share allocation, severability of costs and actual costs submitted for each fire. The balance sheet will

result in a final settlement between all parties and one transfer of funds is required to reconcile the fire season, unless a request is submitted to complete reconciliation prior to the end of fire season, at which point a settlement will be done for expenses to the requested date.

Billing Time Frames for reconciliation process: Agencies will submit invoices within 30 days of final reconciliation. Requests for extensions beyond 30 days for invoice submittal must be presented in writing to the reimbursing agency. Operating plans will include contact information for written requests for extensions.

2. Incident by Incident Process

- a) **Federal Billings by Incident:** There are not billings between the Federal wildland fire agencies, pursuant to the Master Interagency Agreement for Wildland Fire Management. Federal Agencies will submit bills for their reimbursable costs to the States whenever Texas, state agencies are the protecting Agency and a billing is appropriate.
- b) **State Billings by Incident:** When one of the States is the supporting Agency and the fire is within the State of Texas the State will bill the protecting Agency for reimbursable costs when a billing is appropriate. Anytime the States respond to a Federal Agency fire outside of Texas the State will bill all applicable costs to the jurisdictional federal agency or agencies. Operating plans will include billing location information.
- c) **Billing Time Frames:** Agencies will submit invoices within 180 days of the demobilization of the incident. Extensions beyond 180 days for invoice submittal must be presented in writing to the reimbursing agency. It should be noted that some categories of expenses may often require subsequent billings outside of the 180 day period, such as: Outstanding Cost Shares, Claims, Aircraft expenses, and Fire cache costs.

Operating plans will include contact information for written requests for extensions. Absent a written extension of time granted by the reimbursing agency, the final itemized bill should be submitted to the reimbursing agency within 180 days of the demobilization of the incident. After a final billing has been sent, and if additional costs are identified, a supplemental billing may be issued if agreeable to applicable parties.

Each Party to this agreement will strive to provide appropriate parties of an estimate of the amount of reimbursable bills they expect to submit within 90 calendar days in each reimbursable action.

- C. **Severity:** Costs incurred on severity assignments within the state of Texas will be billed

individually to the Jurisdictional Agency. Severity assignments are reimbursable under the Reciprocal Fire Protection Act.

D. Electronic Funds Transfer (EFT)

Notwithstanding any other provision of law, effective January 2, 1999, US Treasury Regulation, Money and Finance at 31 CFR 208.3 requires that federal payments are to be made by EFT unless waived in accordance with specific circumstances set forth in 31 CFR 208.4.

In order to receive EFT payments, the payment recipient shall register in System for Award Management (SAM) and are required to validate their information in SAM once per year. The payment recipient is also required to have a Data Universal Numbering System (DUNS) number. The DUNS number is assigned by Dun & Bradstreet, Inc. (D&B) to identify unique business entities. For more information, refer to www.sam.gov.

Each party to this agreement shall provide the following information in the operating plan.

- Agency name and billing address
- Financial Contact (name, phone, email)
- Agency DUNS

E. Billing Content: The following items will be included as a minimum for each bill, noting that a resource order is not always required or available in order for a bill to be valid. Provide as a minimum on each invoice/bill:

- Agency name, address, phone number, and agency financial contact,
- Invoice or bill number
- Agreement number
- Incident name and number
- Dates of the incident covered by the billing,
- Location and jurisdictional unit
- Appropriate Firecode or charge code.
- Summary cost data for the amount being billed.

Summary data may include but is not limited to, a list of personnel, travel, and equipment expenses; and a listing by vendor name and amount spent for supplies and services procured. Generally, cost source documents will not be required unless summary cost data is disputed, there is a Fire Management Assistance Grant (FMAG), or unless specific agency regulations require cost source documents.

At times, supplemental information, summary data or additional billing documentation may be requested and provided if agreed upon by the Parties. The process for handling such requests should be documented in the Operating Plan.

- F. **Payment Due:** Whenever this Agreement provides for billing, the agency receiving the bill has an obligation to pay. Once bills are received by the reimbursing agency, payment will be made in accordance with that agency's payment processes outlined in the operating plan.
- G. **Services Received and Certification of Billings:** Reimbursing agencies must provide written notice of incorrect invoices to billing agencies within the timeframes specified in the annual operating plan
- H. **Financial Dispute Resolution:** If a conflict arises between the agency's payment processes, the terms of the billing document, or the costs associated with the billing document, the parties should attempt to resolve the differences. If the differences cannot be resolved after consultation between the Parties, the Parties follow their customary dispute resolution processes.
- I. **Review Procedures**

The parties agree to jointly conduct a review, sampling transactions of the incidents managed under this agreement. Findings that are inconsistent with the normal or accepted way of doing business will be reconciled on a case by case basis. Any decision to further examine records will be considered on a case by case basis and appropriate follow up action agreed upon by all agencies involved.

II. Payment for Protection Services (use if appropriate):

Geographic, Statewide or Sub-Geographic (local) operating plans and procurement documents or agreement will establish billing procedures for Fee Basis Protection Services.

III. Non-Suppression Billings:

All non-suppression costs shall be billed and paid in accordance with the terms and conditions of the Supplemental Project Agreement, separate agreement, procurement, or other appropriate written document, executed by the authorized signatories of the involved parties within their legal authorities.

V. Reimbursable Costs

Costs incurred as the result of an incident and documented are reimbursable. Costs must be consistently treated as either direct costs or indirect costs. Consistent treatment of costs is a basic cost accounting principle and is specifically required to assure that the same types of costs are not charged as both direct costs and indirect costs. Every effort should be made to classify costs incurred for the same purpose, in like circumstances, consistently as either direct or indirect.

Direct Costs. Direct costs are those items of expense specifically identified with the

delivery or completion of a project or program. General examples include, but are not limited to, personnel costs (salary and fringe benefits), equipment costs, travel, materials, supplies, and contracts.

For the purposes of this agreement, these may include, but are not limited to the following:

- Actual costs directly incurred for “move-up and cover” or “backfill” resources.
- Agency costs of individuals assigned to the incident or project for salary, benefits, and overtime including premium pay if and when it is earned according to the policies, laws and rules governing the employees of the supporting agency.
- Agency costs for transportation including, but not limited to, airline fees, vehicle rental fees, fuel and oil, and agency established mileage fees.
- Agency costs for per diem and lodging of resources assigned to the incident when such services are not supplied by the incident.
- Additional support dispatching, warehousing or transportation services supporting a resource order or project.
- Operating expenses for equipment assigned to the incident, such as fuel, oil and equipment repairs.
- Cost of reasonable and prudent supplies expended in support of the incident or project.
- Usage cost of equipment in support of the incident or project, contract equipment costs and operating costs for agency equipment.
- Aircraft, airport fees, retardant costs and retardant and other fire chemical costs.
- Agency-owned equipment lost, or damaged, by the supporting agency when accompanied by the appropriate agency source documentation to include insurance deductible paid.
- Charges from the state for state controlled resources such as inmate crews, National Guard resources and county and local resources.
- Agency-owned equipment and supplies lost, damaged, or expended by the supporting agency.
- Cost or replacement of reasonable and prudent supplies expended in support of the incident. What is reasonable and prudent is determined by the protecting and/or jurisdictional agency or the fire team within the limits of their delegated authority or identified in the current Interagency Incident Business Management Handbook (IIBMH).

Indirect costs.

Indirect costs are those items of expense incurred as part of general management and administrative support of an organization. These costs are not attributable to a specific project, program or output, but are distributed among many benefiting activities. Often they are proposed as a percentage of direct project costs and are referred to as administrative costs, overhead, or burden. Examples may include office space, computer equipment, postage, utilities, salaries for administrative activities, such as procurement, personnel, accounting, and so forth. Direct charging of these costs, however, may be appropriate if they can be specifically identified to a project or program and the nature of the work performed creates a unique need or requires an extensive amount of support. These situations are considered “unlike circumstances”.

Indirect cost rate rates may vary for each agency. Application of indirect cost rates will be addressed within the Operating Plan (Exhibit C.).

When indirect cost rates are applied to federal reimbursements, the Parties agree to the following.

1. If the payment recipient has never received or does not currently have a negotiated indirect cost rate, they are eligible for a de minimis indirect cost rate up to 10% of Modified Total Direct Costs (MTDC). MTDC is defined as all salaries and wages, fringe benefits, materials and supplies, services, travel, and contracts up to the first \$25,000 of each contract.
2. For rates greater than 10% and less than 25%, the payment recipient shall maintain documentation to support the rate. Documentation may include, but is not limited to, accounting records, audit results, cost allocation plan, letter of indirect cost rate approval from an independent accounting firm, or other Federal agency approved rate notice applicable to agreements.
3. For a rate greater than 25%, the Federal agency may require that the payment recipient request a federally approved rate from the payment recipient's cognizant audit agency no later than 3 months after the effective date of the agreement. The payment recipient will be reimbursed for indirect costs at the rate reflected in the agreement until the rate is formalized in the negotiated indirect cost rate (NICRA) at which time, reimbursements for prior indirect costs may be subject to adjustment.
4. Failure to provide adequate documentation supporting the indirect cost rate, if requested, could result in disallowed costs and repayment to the Federal agency.

**MASTER COOPERATIVE WILDLAND FIRE MANAGEMENT AND STAFFORD ACT
RESPONSE AGREEMENT**

EXHIBIT E

Cost Share Agreement Instructions

Each of the numbered instructions below corresponds to form items that require further explanation. Supplemental cost share agreements will be numbered consecutively following the original (#1) for each fire. Supplements may be added at any time. Where insufficient room is available for necessary information, additional sheets or addendums may be added. Small revisions to this agreement may be completed on a single page, describing the change to the original agreement, and obtaining new signatures from those involved.

A Master Cooperative Wildland Fire Management and Stafford Act Response Agreement exists between all major wildland fire protection agencies in the State of Texas. This agreement authorizes general mutual aid, including reciprocal and cooperative fire protection services elaborated upon in geographic, statewide, or sub-geographic area operating plans. Other cooperative agreements exist between fire management agencies that authorize fire management services between Agencies at the sub-geographic level. The objective of the Cost Share Agreement is to establish and document the cost sharing and basic organizational structure in response to specific fires.

Cost Share Agreements will be negotiated between agencies involved in specific on-the-ground fire suppression activities. These agreements are mandatory when more than one jurisdictional responsibility for fire protection is affected by the placement of the fire. The agreement will not affix liability for fire cost payment by either Agency based upon responsibility for the fire origin. The designated representatives of each Agency with protection responsibility are responsible for completing and signing the agreement.

1. List the fire name agreed upon by Parties involved.
2. Give the origin or best estimate of origin location by legal description.
3. Estimate the size at the time of the Supplemental Agreement.
4. List the Parties involved in fire suppression operations and respective agency fire numbers.
5. List the date and time that the agreement is in effect. That time could be prior to or following the time that negotiations are made for the agreement.
6. Check the appropriate command structure for the fire. Definitions:

UNIFIED COMMAND – A method for all Agencies with jurisdictional responsibility to contribute to determining the overall objectives for the incident; interagency ICS team structure.

SINGLE COMMAND STRUCTURE – One Agency manages the incident with liaison and concurrence of objectives from other involved Agencies.

List the appropriate personnel filling ICS positions on the fire.

7. List any special conditions or resource objectives, e.g., dozer restrictions, mechanized restrictions, bald eagle nest, high value plantation. Operational responsibility for the fire will be defined in this section (if appropriate). Respond to this item only if Agency forces have specific segments of the fire. This information will not determine cost responsibility, unless specified in Item 11. Examples are: Divisions A and B; all structural protection areas; specific campground.
8. List the Agency having legal responsibility for structural protection, and any pertinent control information or contacts.
9. List operation conditions or directions pertaining specifically to: air operations, base camp and food service, and fire investigation. Costs pertaining to these decisions shall be documented in Item #10.
10. Fire suppression costs shall be determined from the information supplied in this item. There are several ways to determine the best cost share mix. A, B, and C are typically used on smaller, less complex incidents on lands with similar values and uses; D and E on larger, more complex incidents, such as those with both wildland urban interface and wildlands:
 - A. Each Agency pays for its own resources – fire suppression efforts are primarily on jurisdictional responsibility lands.
 - B. Each Agency pays for its own resources – services rendered approximate the percentage of jurisdictional responsibility, but not necessarily performed on those lands.
 - C. Cost share by percentage of ownership or Agency jurisdictional responsibility.
 - D. Cost is apportioned by geographic division or by percent of effort. Examples of geographic divisions are: Divisions A and B (using a map as an attachment); privately owned property with structures; or specific locations such as campgrounds.
 - E. Reconciliation of daily costs (for larger, multi-day incidents). This method relies upon daily agreed to costs, using Incident Action Plans or

other means to determine multi-Agency contributions. Reimbursements must be followed up by a final bill.

The following are not reimbursable:

- Responsibility for tort claims or compensation for injury costs.
- Non suppression rehabilitation costs are the responsibility of the jurisdictional Agency.
- Non-expendable property purchases will be the responsibility of the Agency making the purchase.

Support costs (i.e. office dispatchers, warehouse workers, etc.), unless they are charging to an emergency code assigned to the incident.

The cost centers that should be considered in this agreement:

- Fireline Resources: Dozers, engines, fallers, transports, water tenders, hand crews, line overhead.
- Fire Camp Operations and Support: Overhead, buses, camp crews, communications, food, refrigerator units, showers, toilets, water trucks, cache supplies, rescue/med, camp facility.
- Air Support: Helicopters, (with support) air tankers.
- Cost apportionment by period (i.e., state mobilization or conflagration, Fire Management Assistance Grant declaration, additional jurisdictional involvement).

12. List any specific conditions relative to this agreement, such as: dispatch procedures, one Agency representing another, notifications, incident information, coordinated intelligence, etc.
13. Signatures of authorized personnel. List any attachments to the agreement. Give the date of the last revision or former Supplemental Agreement for the same fire.

**MASTER COOPERATIVE WILDLAND FIRE MANAGEMENT AND STAFFORD ACT
RESPONSE AGREEMENT**

Exhibit F

Cost Share Agreement

The purpose of this agreement is to provide for a coordinated cooperative fire suppression operation on this fire and to describe the cost divisions. This agreement is a supplement to the Master Cooperative Wildland Fire Management and Stafford Act Response Agreement executed between the Agencies listed, on (date).

1. Fire Name: _____ Origin Date _____ Time _____
2. Origin: Township _____ Range _____ Section _____
3. Estimated Size _____ Acres at the time of this agreement.
4. Agency _____ Fire # _____ Accounting Code _____
 Agency _____ Fire # _____ Accounting Code _____
5. This agreement becomes effective on: _____

_____ at _____ and remains in effect until amended or terminated.

6. Overall direction of this incident will be by () Unified Command, or by () Single Command structure. Identify below personnel filling the following positions:

Position	Name(s)	Agency
Incident Commander	_____	_____
Agency Administrator Representative	_____	_____
Liaison	_____	_____
Finance	_____	_____
Operations	_____	_____

7. Suppression action will be subject to the following special conditions and land management

considerations:

8. Geographic responsibility (if appropriate) by Agency is defined as follows:

Agency _____	Geographic Responsibility _____

9. The Agency responsible for structural protection will be: _____

10. Special operational conditions agreed to (include as appropriate Air operations, base camp, food service, fire investigation, security, etc.) List cost share information in Item #11:

11. Fire Suppression COSTS will be divided between Agencies as described:

Cost Centers:	Agency:	Agency:	Agency:

12. Other conditions relative to this agreement (notifications, incident information, etc):

13.

Agency Agency Agency Agency

Signature Signature Signature Signature

Title/Date Title/Date Title/Date Title/Date

List of Attachments (if any): _____ / _____ / _____

**MASTER COOPERATIVE WILDLAND FIRE MANAGEMENT AND STAFFORD ACT
RESPONSE AGREEMENT**

Exhibit G

Supplemental Fire Department Resources Template

These provisions apply only to Supplemental Fire Department Resources, and not to regular fire department personnel. Supplemental Fire Department Resources are defined as overhead tied to a local fire department generally by agreement who are mobilized primarily for response to incidents/wildland fires outside of the district or mutual aid zone. They are not a permanent part of the local fire organization and are not required to attend scheduled training, meetings, etc. of the department staff.

When mobilizing Supplemental Fire Department Resources outside of the fire district or mutual aid zone the following will apply.

Mobilization

Mobilization will follow established ordering procedures as identified in the National, Geographic, and Local Mobilization Guides. Resources will be mobilized from the Host Dispatch Zone in which the department is located. Personnel will be provided a copy of the resource order request after confirmation of availability and prior to departure from their home jurisdiction. Resource orders shall clearly indicate incident assignment, incident location, expected incident arrival time, and any additional special needs or equipment authorizations, e.g. cell phones, laptops, rental vehicles, etc.

Reimbursable Costs

Reimbursable costs for personnel include compensation rates for hours worked, benefits, transportation, and per diem. It is the intent of this provision that the Supplemental Fire Department Resource be paid a regular compensation rate for all hours worked plus an overtime compensation rate for actual overtime hours worked, including travel. Reimbursable costs shall not include portal to portal pay or the portion of benefits personally paid by the employee. Travel and per diem reimbursements will be based on the Federal Travel Regulations.

Any costs for backfill personnel are not reimbursable for personnel hired as Supplemental Fire Department Resources.

An indirect cost allowance up to ten percent of the direct salary and wage cost of providing the service (excluding overtime, shift premiums, and fringe benefits) is allowed.

Personnel

All personnel will possess an active Incident Qualification System (IQS) or equivalent incident qualification documentation commensurate with all applicable NWCG 310-1 standards for training and qualifications. Personnel will be qualified for their assigned positions. XXFD is responsible for annually certifying and maintaining the qualifications of their Supplemental Fire Department Resources. XXFD will bear the cost of training for their Supplemental Fire

Department Resources.

Any personnel to be mobilized under this exhibit will be listed in the Operating Plan by name, position(s), and identified as SR. While on assignment, these individuals are **XXFD** employees and the **XXFD** will be reimbursed for their actual costs.

Rate Determination

The basis for the computation of base hourly rate is the classification level of the position filled according to the attached matrix. Base hourly rate shall be no more than step 5 of the appropriate GS wage adjusted for locality pay at the location of the fire district. These rates can be found on the OPM web site <http://www.opm.gov>, Salaries and Wages. Personnel are hired at the rate of the position being filled, not their highest qualification.

The hourly compensation rates identified in the Operating Plan are computed as follows:

1) **Regular Compensation Rate:** The rates listed include base hourly rate determined above plus employee benefits. Employee benefits include those costs actually incurred by the XXFD for the employment of these individuals, such as employer liability, workers compensation, employer share of social security, etc.

2) **Overtime Compensation Rate:** Overtime compensation rates are paid based on a 7 day work week beginning on day one of mobilization. Compensation rates are paid at time and a half of the base hourly rate for all hours worked in excess of 8 hours per day for the first 5 days and full time and one half for all hours worked during the remainder of the work week. Compensation includes travel time.

3) **Hazard Pay Rate** – Hazard pay differential may be paid to those employees performing work that meets the definition of hazardous duty as defined in the Interagency Incident Business Management Handbook. Compensation rates are paid at 25 percent of the base rate when performing duties that meet the definition of hazardous duties. All hazard pay differential is based on a 24-hour day from 0001-2400 and shall be paid for all hours in pay status during the calendar day in which the hazardous duty is performed.

Days off at Incident

Days off at the incident will be paid for 8 hours. Work/rest guidelines will be followed, and mandatory days off will follow current guidelines (IIBMH) Once travel to the home unit commences, days off will not be paid.

Transportation and Per Diem

Per Diem reimbursements will be based on the Federal Travel Regulations. The payment rate for privately-owned vehicles (POVs) and rental vehicles used to support Supplemental Fire Department Resources shall be at the current Federal Travel Regulation rate.

Signature
Agency Administrator

Date

Federal Agency

Signature
Fire Chief
Local Fire Protection District
Or appropriate Official at State Level

Date

Attachment to Exhibit G
 Supplemental Fire Department Resource – Classification Matrix

OPM GENERAL SCHEDULE	AREA COMMAND	COMMAND	OPERATIO NS	AIR OPS	PLANS	LOGISTICS	FINANCE	SUPPORT
GS-2						RADO		
GS-3			FFT2	ABRO	DPRO	SECG		EDRC
GS-4			FALA FFT1	HECM		EQPI		
GS-5		ICT5	ENOP		SCKN	BCMG EQPM INCM ORDM RCDM SECM	CLMS EQTR INJR PTRC	
GS-6		ICT4	CRWB DOZB ENGB FALB FELB STAM TRPB WHSP	AOBS DECK HELB RAMP	DOCL FOBS TNSP	COMT		EDSD
GS-7		IOF3		HELM SEMG	GISS	EMTB EMTI		

Attachment to Exhibit G
 Supplemental Fire Department Resource – Classification Matrix

OPM GENERAL SCHEDULE	AREA COMMAND	COMMAND	OPERATIONS	AIR OPS	PLANS	LOGISTICS	FINANCE	SUPPORT
GS-8		SOF3	DOZ1	ATBM	DMOB	COML	COMP	EDSP
			TFLD	HEB2	HRSP	FACL	COST	IADP
			STCR		RESL	FDUL	TIME	
			STDZ		SITL	GSUL		
			STEN			MEDL		
			STLM			SPUL		
			STPL			CTSP		
GS-9			FALC	HLCO			PROC	
				HEB1				
				SECO				
GS-10		ICT3	DIVS	ASGS	FBAN	EMTP		CORD
			STPS	ATGS	LTAN			INTL
								PETM
GS-11		ICT2 THSP – Deputy ICT2 PIO2 LOFR SOF2	OPBD	AOBD	PSC2	LSC2	FSC2	ARCH
			OSC2			SVBD		IBA2
						SUBD		MCCO
								PETL
GS-12	ACAC ACPC ACLC	PIO1 SOF1	OSC1		PSC1	LSC1	FSC1	IBA1
GS-13	ACDR	ICT1 THSP – Deputy ICT1						

**MASTER COOPERATIVE WILDLAND FIRE MANAGEMENT AND STAFFORD ACT
RESPONSE AGREEMENT**

Exhibit H

Use and Reimbursement for Shared Resources in Stafford Act Response Actions

1. Stafford Act Declarations: Transfers performed for this Agreement are under the Disaster Relief Act, 42 U.S.C. § 5147. This Agreement is automatically incorporated by reference into any Resource Order that is issued under it, constituting a binding obligation. The billings, inclusive of copies of this Agreement, the Mission Assignment and subsequent Resource Order(s), and expenditure documentation, will define the specific services, supplied goods and costs (by sub-object class code) for each order, and subsequent obligation and payment.

Reimbursement payments for Stafford Act response activities will be accomplished by submission of billings to the Emergency Support Function (ESF) primary agency (i.e., the agency which issued the mission assignment or sub-tasking). The ESF primary agency will review, approve the documentation, and return to the sub-tasked agency with referencing documentation to process the billing. Each sub-tasked agency is responsible for submitting its own billing documentation to the ESF primary agency for reimbursement.

2. Federal Reimbursable Assistance: Federal Reimbursable Assistance resources must be requested by the ESF primary agency or supplied through established dispatch systems and must be recorded by the Mission Assignment and subsequent Resource Order process. Resources not documented in this manner are not reimbursable. Funds to cover eligible expenses will be provided through and limited by the amount of reimbursement approved and provided from FEMA. Expenditures eligible for reimbursement for Federal Agencies in accordance with 44 CFR 206, subpart A, section 206.8 paragraph c include:

- a) Overtime, travel and per diem of permanent Federal agency personnel.
- b) Wages, travel and per diem of temporary Federal agency personnel assigned solely to performance of services directed by the (FEMA) Associate Administrator or the (FEMA) Regional Administrator in the emergency or major disaster.
- c) Cost of work, services, and materials procured under contract for the purposes of providing assistance directed by the (FEMA) Associate Administrator or the Regional Administrator.
- d) Cost of materials, equipment, and supplies (including transportation, repair and maintenance) from regular stocks used in providing directed assistance.
- e) All costs incurred which are paid from trust, revolving, or other funds and whose reimbursement is required by law.
- f) Other costs submitted by an agency with written justification or otherwise agreed to in writing by the (FEMA) Associate Administrator or the (FEMA) Regional Administrator and the agency.

3. State/Tribe Reimbursement Process: State/Tribe Reimbursement refers to those resources that are to be reimbursed by the ESF primary agency. State/Tribe Reimbursement resources must be requested by the ESF primary agency or supplied through established dispatch systems and must be recorded by the Mission Assignment and subsequent Resource Order process. Resources not documented in this manner are not reimbursable. Funds to cover eligible expenses will be provided through and limited by reimbursement from FEMA. Expenditures eligible for reimbursement include:

- a) Wages, overtime, travel and per diem of State/Tribal personnel.

- b) Wages, travel and per diem of temporary State/Tribal personnel assigned solely to performance of services directed by the (FEMA) Associate Administrator or the (FEMA) Regional Administrator in the major disaster.
- c) Cost of work, services, and materials procured under contract for the purposes of providing assistance directed by the (FEMA) Associate Administrator or the Regional Administrator.
- d) Cost of materials, equipment, and supplies (including transportation, repair and maintenance) from regular stocks used in providing directed assistance.
- e) All costs incurred which are paid from trust, revolving, or other funds and whose reimbursement is required by law.
- (f) Other costs submitted by an agency with written justification or otherwise agreed to in writing by the (FEMA) Associate Administrator or the (FEMA) Regional Administrator and the agency.

Note: In order to meet FEMA's policies regarding mission assignments and timely billing, all State and local resources dispatched to a FEMA incident under a valid state or local cooperative/interagency agreement must submit invoices for reimbursement to the appropriate federal agency no later than 90 days after demobilization of the incident. Any invoices not submitted within this timeframe are subject to non-payment. Extensions beyond 90 days for invoice submittal must be presented in writing to the reimbursing agency. Operating Plans will include contact information for written requests for extensions. Absent a written extension of time granted by the reimbursing agency, the final itemized bill must be submitted to the reimbursing agency within 90 days of the demobilization of the incident.

4. Duration of Assignments: Consideration must be given to the health and safety of personnel when assigned to incidents. Parties agree that Incident Commanders will release resources to their primary responsibilities as soon as priorities allow. Incident Commanders shall also adhere to rest and rotation policies of respective responding agencies. Mobilization activities shall be accomplished utilizing established dispatch coordination concepts per the current National Interagency Mobilization Guide.

5. Procurement: The (State/Tribe) derives its procurement authority from its inherent powers and its own laws, and is therefore not subject to Federal procurement laws. Whenever the (State/Tribe) is responsible for the management of an incident (including an incident within the Direct Protection Area of a Federal Agency), the (State/Tribe) will comply with (State/Tribe) laws and regulations covering procurement. Procurement costs by one Party in support of another that are reasonable and prudent may be charged back to the Protecting Agency. All property procured under a Mission Assignment becomes the property of FEMA.

6. Loaned Equipment: Equipment loaned by one Party to another shall become the responsibility of the borrower, and shall be returned in the same condition as when received, reasonable wear and tear excepted. The borrower will repair or reimburse for damages in excess of normal wear and tear and will replace or reimburse items lost or destroyed.

7. Billing Procedures

A. Incident Billings:

1. When (State/Tribe) is the supporting agency operating under a mission assignment or sub-tasking from the ESF Primary Agency and the incident is **within** the (State/Tribal lands), the (State/Tribe) will bill the ESF Primary Agency. When the (State/Tribe) is the supporting agency and the incident is **outside** the (State/Tribe)'s jurisdiction, the (State/Tribe) will bill

the ESF Primary Agency.

2. Agencies will share their respective individual incident Resource Order numbers for cross referencing purposes, if requested.
3. Billing Estimates/Timeframes: On incidents where costs are incurred pursuant to Operating Plans, the billing Party shall submit a bill or estimate for reimbursement as soon as possible, but not later than 90 days after the incident is controlled.
4. Extensions beyond 90 days for invoice submittal must be presented in writing to the reimbursing agency.
5. Operating Plans will include contact information for written requests for extensions. Absent a written extension of time granted by the reimbursing agency, the final itemized bill must be submitted to the reimbursing agency within 90 days of the Stafford Act response.

For obligation purposes, the Federal Agencies will submit unpaid obligational figures to the (State/Tribe) by *(to be determined by individual State/Tribe fiscal year)*. The (State/Tribe) will submit unpaid obligational figures to the appropriate Federal Agency by September 1 for the previous Federal fiscal year. All obligations will be submitted by incident name, date, mission assignment number (MA), and federal job code.

6. Billing Content: Bills will be identified by incident name, date, Mission Assignment (MA), location, jurisdictional unit, and supported by documentation to include but not limited to: separate invoice by MA; list of personnel expenses including base, overtime, and travel; and supplies/services procured by vendor name and dollar amount. Billings for (State/Tribe) incident assistance may include administrative overhead, not to exceed the applicable (State/Tribe) indirect cost rate.

8. Billing Addresses:

All bills for services provided to the Texas A&M Forest Service will be mailed to the following address for payment:

Travis Zamzow
Texas A&M Forest Service
Budgets and Accounting
200 Technology Way, Ste. 1120
College Station, TX 77845
Phone: 979-458-6643
Fax:

All bills for services provided to the Texas - Parks and Wildlife Department will be mailed to the following address for payment:

Tammy Dunham, Contract Specialist
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX 78744
512-389-4752

All bills for services provided to the Forest Service and all Federal and State units who are not parties to this Agreement will be mailed to the following address:

Attn: Incident Business Center
USDA Forest Service- Albuquerque Service Center
101B Sun Avenue NE
Albuquerque, NM 87109
Fax: 866-816-9532

All bills for services provided to the Department of the Interior/BLM will be mailed to:

301 Dinosaur Trail
Santa Fe, NM 87508
405-247-1587

All bills for services provided to the Department of the Interior/NPS will be mailed to:

Kymerly Amar
Budget Analyst – NPS IMR
P.O. Box 2587
Denver, CO 80225
303-969-2948

All bills for services provided to the Department of the Interior/BIA will be mailed to:

Jocelyn Littlechief, Contracting Officer
BIA Southern Plains Regional Office
P.O Box 368
Anadarko, OK 73007
405-247-1527

All bills for services provided to the Department of the Interior/Fish and Wildlife Service will be mailed to:

Attn: Regional Fire Management Coordinator
--

USDI US Fish and Wildlife Service
Southwestern Regional Office
P.O. Box 1306
Albuquerque, NM 87103

9. **Payment Due Dates:** All bills will have a payment due date 60 days after the date of issuance. If payment cannot be made before the 60 days expire, then a 30-day extension, with oral or written justification, may be requested.
10. **Disputed Billings:** Written notice that a bill is contested will be mailed to the billing agency within 60 days of issuance of the final bill, and will fully explain the area of dispute. Contested items will be resolved not later than 60 days following receipt of written notice. The uncontested portion of the bill will be paid and a new bill will be issued for the contested amount.
11. **Payments:** Payments will refer to the bill number and incident name and will be sent to the appropriate billing address.

Federal Agency Project Agreement No. ^(a) _____
Cooperator Project Agreement No. ^(b) _____

Exhibit I

**SUPPLEMENTAL FIRE PROJECT AGREEMENT
Between**

^(c)

And
^(d)

This Supplemental Fire Project Agreement (agreement) is hereby made and entered into by and between ^(e), hereinafter referred to as "the Cooperator," and ^(f), hereinafter referred to as the Federal Agency under the Reciprocal Fire Protection Act of May 27, 1955, (69 Stat. 66; 42 U.S.C. 1856a) and under the provisions of the Master Cooperative Wildland Fire Management and Stafford Act Response Agreement No. ^(g), executed between the parties.

Project Title: ^(h)

I. BACKGROUND:

As referenced above, the parties (directly or through their respective agencies) entered into a Master Cooperative Wildland Fire Management and Stafford Act Response Agreement (Master Agreement). The Master Agreement allows for the parties to cooperatively conduct projects or share resources for fire protection and prevention, which includes such activities as prescribed fire/fuels management, preparedness, fire analysis/planning, rehabilitation, training, public affairs, and other beneficial efforts in support of interagency fire management.

II. PURPOSE:

The purpose of this agreement is to document the parties' contributions and cooperation regarding ⁽ⁱ⁾. This project is further described in the hereby incorporated Financial and Project Plan, attached as Exhibit ^(j).

III. THE COOPERATOR SHALL:

- A. Perform in accordance with the terms of this agreement and with the Financial and Project Plan, Exhibit ^(k).
- B. Bill the Federal Agency for actual costs incurred, not to exceed ^(l)\$ _____, as agreed to in the attached Financial Plan.

- C. Upon presentation of a Bill for Collection, reimburse the Federal Agency for actual costs incurred, not to exceed ⁽⁰⁾\$, as agreed to in the attached Financial Plan.

IV. THE FEDERAL AGENCY SHALL:

- A. Perform in accordance with the terms of this agreement and with the attached Financial and Project Plan, Exhibit ⁽⁰⁾ .
- B. PAYMENT/REIMBURSEMENT. The Federal Agency shall reimburse the Cooperator for the Federal Agency's share of actual expenses incurred, not to exceed ⁽⁰⁾\$, as shown in the attached Financial Plan. The Federal Agency shall make payment upon receipt of the Cooperator's ^(m) invoice. Each invoice from the Cooperator must display the total project costs for the billing period.

Each invoice must include, at a minimum:

- 1) Cooperator's name, address, and telephone number
- 2) Federal Agency project agreement number
- 3) Invoice date
- 4) Performance dates of the work completed (start and end)
- 5) Total invoice amount for the billing period

The invoice must be forwarded to: ⁽ⁿ⁾

Send a copy to: ^(o)

- C. REIMBURSABLE BILLING. The Federal Agency shall bill the Cooperator ^(m) for funds sufficient to cover the costs for the specific payment period, not to exceed ⁽⁰⁾\$ as shown in the attached Financial Plan. All reimbursement billings must be completed within the same fiscal year as Federal Agency expenditures. Overhead is assessed at the rate of ^(p) percent.

Billings must be sent to: ^(q)

The Federal Agency is required to issue bills for expenditures incurred under reimbursable agreements at the end of or prior to the end of each federal fiscal year. Therefore, an out-of-cycle bill may be received by the Cooperator.

If payment is not received to the satisfaction of the Federal Agency by the date specified on the bill, the Federal Agency shall exercise its rights regarding the collection of debts owed to the United States.

- D. ^(t) SPECIAL BILLING REQUIREMENTS – FINANCIAL DOCUMENTATION. Reimbursable billings shall be issued at the prescribed frequency based on expenditures recorded in the U.S. Forest Service accounting system for work performed. Bills for Collection reflect an aggregate amount for the billing period. U.S. Forest Service Transaction Register listing itemized expenses will be provided upon request at the end of a project or annually for long-term agreements. Provision of the Transaction Register or other supporting documentation accompanying individual bills will be limited to agreements over \$2,500, and only when cooperator requirements are clearly defined within this clause.

The special billing requirements are: ^(s)

- E. ^(l) SPECIAL BILLING REQUIREMENTS – PROGRAM DOCUMENTATION. The U.S. Forest Service Program Manager shall provide the Cooperator with a written report that meets the Cooperator’s specific documentation requirements.

V. IT IS MUTUALLY AGREED AND UNDERSTOOD BY AND BETWEEN THE PARTIES THAT:

- A. ^(u) PRINCIPAL CONTACTS. Individuals listed below are authorized to act in their respective areas for matters related to this agreement.

^(v) Principal Cooperator Contacts:

Cooperator Program Contact	Cooperator Administrative Contact
Name:	Name:
Address:	Address:
City, State, Zip:	City, State, Zip:
Telephone:	Telephone:
FAX:	FAX:
Email:	Email:

^(w) Principal Federal Agency Contacts:

Federal Agency Program Manager Contact	Federal Agency Administrative Contact
Name:	Name:
Address:	Address:
City, State, Zip:	City, State, Zip:
Telephone:	Telephone:
FAX:	FAX:
Email:	Email:

- B. LIABILITY. As set forth under the provisions of the Master Agreement.

- C. ^(x)Mutually agree to the Burn Plan as incorporated in this agreement, and to any agreed upon revision thereof. If the revision to the Burn Plan does not materially affect the purpose and/or terms of the agreement, but rather only revises the implementation of the project, then a modification to this agreement is not necessary. The most recent revision of the Burn Plan will automatically be incorporated into this agreement and a copy will be provided to the Principal Contacts listed above.
- D. In the event of a conflict between the provisions of this agreement and the Master Agreement, the Master Agreement shall take precedence.
- E. ^(y) PURCHASE OF ASSETS. Any assets (such as equipment, property, or improvements) purchased by the Federal Agency with the Cooperator's contributions shall become the property of the Federal Agency, unless otherwise documented via separate authority and instrument.
- F. ^(z) PROPERTY IMPROVEMENTS. Improvements placed on federal land at the direction, or with the approval of, the Federal Agency becomes property of the United States. These improvements are subject to the same regulations and administration of the Federal Agency as would other agency improvements. No part of this agreement entitles the Cooperator to any interest in the improvements, other than the right to use them under applicable Federal Agency Regulations.
- G. PARTICIPATION IN SIMILAR ACTIVITIES. This agreement in no way restricts the parties from participating in similar activities with other public or private agencies, organizations, and individuals.
- H. ENDORSEMENT. Either party's contributions made under this agreement do not by direct reference or implication convey endorsement of each other's products or activities.
- I. ALTERNATE DISPUTE RESOLUTION. In the event of any issue of controversy under this agreement, the parties may pursue Alternate Dispute Resolution procedures to voluntarily resolve those issues. These procedures may include, but are not limited to, conciliation, facilitation, mediation, and fact finding.
- J. MODIFICATION. Modifications within the scope of this agreement must be made by mutual consent of the parties, by the issuance of a written modification signed and dated by all properly authorized, signatory officials, prior to any changes being performed. Requests for modification should be made, in writing, at least ^(aa) days prior to implementation of the requested change. Neither party is obligated to fund any changes not properly approved in advance.
- K. TERMINATION. Either party, in writing, may terminate this agreement in whole, or in part, at any time before the date of expiration. Neither party shall incur any new obligations for the terminated portion of this agreement after the effective date and shall cancel as many obligations as possible. Full credit shall be allowed for each party's

expenses and all non-cancelable obligations properly incurred up to the effective date of termination.

- L. COMMENCEMENT/EXPIRATION DATE. This agreement is executed as of the date of last signature and is effective through ^(bb) at which time it will expire unless extended.

If the referenced Master Agreement is superseded by a new Master Agreement, this project agreement may remain in effect to the extent that it does not conflict with the provisions of the new Master Agreement, but only until such time that the project can be completed or modified to be incorporated within the terms of the new Master Agreement.

- M. AUTHORIZED REPRESENTATIVES. By signature below, the parties certify that the individuals listed in this document as representatives of each party are authorized to act in their respective areas for matters related to this agreement.

(cc)

(dd) _____ Date
 (ff) , (ec)

(gg)

(hh) _____ Date
 (jj) , (ii)

^(kk)The authority and format of this agreement have been reviewed and approved for signature.

(ll)

(mm) _____ Date
 U.S. Forest Service Grants & Agreements
 Specialist

INSTRUCTIONS for Supplemental Project Agreement

All provisions in this instrument are mandatory, unless otherwise excepted. This project agreement may only be used between a federal agency and a cooperating state, local, tribal gov't (or subdivision thereof) under a Master Cooperative Wildland Fire Management and Stafford Act Response Agreement.

(Master Agreement)= Referring to approved (2007 or newer) national agreement template used by/between federal wildland fire agencies and State/Tribal gov't.

- (a) Federal Agency Project Agreement No. For example, Forest Service uses the following format: *FY-FP-11RRU/USS-XXX*.
- (b) Cooperator Project Agreement No. Insert Cooperator project agreement number, if applicable.
- (c) Insert name of Cooperator (state, local, tribal, or subdivision thereof)
- (d) Insert name of Federal Agency, including applicable Region, Office, or Unit.
- (e) Insert Cooperator name as cited above.
- (f) Insert Federal Agency name as cited above.
- (g) Insert corresponding Federal Agency Agreement # as identified on the Master Coop Agreement.
- (h) Insert project title.
- (i) Enter brief project description.
- (j) Insert alpha or numeric reference to the Exhibit added that provides a Financial and Project Plan. Note: The Project Plan may include tasks/projects defined in the Operating Plan (as referenced in the Background section), or it may be a Burn Plan, if applicable.
- (k) Insert amount. If the Federal Agency is not obligating funds for reimbursement to the cooperator, then delete this provision.
- (l) Insert amount. If the Federal Agency is not collecting funds from the cooperator, then delete this provision.
- (m) Select and insert the appropriate billing cycle: monthly, quarterly, semi-annual, or annual. Note: quarterly dates (December 31, March 31, June 30, and September 30), semi-annually (March 31, and September 30) or annually (September 30 or earlier).
- (n) Insert Federal Agency name as cited above and billing address. (For Forest Service, use Albuquerque Service Center, Payments – Grants & Agreements, 101B Sun Ave NE, Albuquerque, NM 87109, FAX: 877-687-4894)
- (o) Insert other contact name and address, if applicable, otherwise delete.
- (p) Insert the Federal Agency burden/overhead rate. Enter 'shall not be assessed' if burden is not applicable.
- (q) Enter Cooperator's name, name of point of contact, and mailing address to which billing documents should be sent.
- (r) If the Federal Agency is not the Forest Service or if the Forest Service is not collecting funds, delete this provision

Optional, if the cooperator requires financial documentation with each bill. This provision alerts ASC-RACA that the Forest Service shall provide transaction registers with any billing to the cooperator under this agreement.

Also, Choose one of the following: with each bill, upon project completion, or annually

(s) Insert special billing requirements here, such as whether the billing requirements are either with each bill, upon project completion, or annually.

(t) If the Federal Agency is not the Forest Service or if the Forest Service is not collecting funds, delete this provision

Optional provision if the Cooperator requires an accomplishment or program report with each BFC. This provision alerts ASC-RACA that the Forest Service must coordinate BFCs with the PM for submission to the Cooperator.

(u) May be changed to accommodate additional contacts.

(v) Insert ALL of the requested information below. If information is unavailable, then make a good-faith effort to obtain.

(w) Insert ALL of the requested information below. If information is unavailable, then make a good-faith effort to obtain.

(x) If a Burn Plan is not attached, remove this provision.

(y) If the Federal Agency is not collecting funds from cooperator, delete this provision.

(z) Mandatory provision IF property improvements result from a project on federal lands.

Do not use this provision if improvements are owned by the Cooperator and covered under another instrument such as a Special Use Permit or license.

(aa) Insert a notification period that is no less than 30 days.

(bb) Insert the expiration date not greater than the expiration date of the Master Agreement.

(cc) Insert date of signature.

(dd) Insert name of signatory official for Cooperator.

(ee) Insert Cooperator signatory official's positional title.

(ff) Insert Cooperator's organizational name.

(gg) Insert date of signature.

(hh) Insert name of Federal Agency Signatory Official.

(ii) Insert Federal Agency signatory official's positional title.

(jj) Insert Federal Agency Region, Office, or Unit.

(kk) If the Federal Agency is not the Forest Service, this signature block may be deleted.

(ll) Insert date of signature.

(mm) Insert G&A Specialist's name.

July 6, 2016

Memorandum Of Understanding

Between

BIG THICKET NATIONAL PRESERVE

and

ALABAMA-COUSHATTA VOLUNTEER FIRE DEPARTMENT

Article I – BACKGROUND AND OBJECTIVES

A. Purpose

1. The purpose of this **Memorandum Of Understanding** (hereinafter **MOU**) is to provide personal services and equipment required for structural and wildland fire prevention/suppression and the protection of life and property from fire on lands administered by Big Thicket National Preserve (hereinafter Preserve) and to nearby prevention agencies.

B. Authority:

1. The statutes found at 42 U.S.C. 1856-1856c and 16 U.S.C. 1b (1) provide authority for the National Park Service (hereinafter NPS) to enter into reciprocal agreements and to render emergency firefighting and cooperative assistance to nearby fire prevention agencies to extinguish fires and preserve life and property.
2. The Chief of the Alabama-Coushatta Volunteer Fire Department (hereinafter Department) has signature authority to enter into agreements with the Preserve regarding fire prevention and suppression services on Preserve administered lands.
3. The Preserve Superintendent has signature authority to enter into agreements with the Department regarding fire prevention and suppression services on Preserve administered lands and to provide reciprocal assistance.

ARTICLE II STATEMENT OF WORK

A. Fire on Preserve Lands:

1. In the event of a structural or wildland fire, the Department agrees to:
 - a. Respond to the fire with a minimum of one Engine unit (if available) and crew with safety and firefighting equipment, unless the absence of this equipment from the reserve would put the Alabama-Coushatta Reserve at risk.
 - b. Cooperate with the Preserve staff in the immediate suppression of the fire.
 - c. Recognize the first fire unit on the scene as Incident Command. Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.
 - d. Recognize that Preserve/NPS policies and requirements may necessitate special or unique firefighting procedures that may differ from Department procedures. The Department will adhere to Preserve/NPS requirements when requested to do so by the Preserve Superintendent or designated representative. For purposes of this **MOU**, the following persons will be considered, in descending order as the Superintendent's designated representatives:
 - 1) Wayne Prokopetz, Superintendent
 - 2) Fulton Jeansonne, Fire Management Officer
 - 3) Merrick Moody, Chief Law Enforcement Ranger
 - 4) Rodney Monk, Wildland Fire Operations Specialist.
2. The Preserve agrees to:
 - a. Provide access to structures as soon as possible, the department is allowed to enter the effective building by the best means possible to suppress a fire when smoke or flames are visible.
 - b. Provide qualified wildland firefighting personnel with safety and firefighting equipment.
 - c. Cooperate and coordinate with the Department personnel in suppression and rescue activities.

- d. Recognize the first fire unit on the scene as Incident Command
Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.
3. Operations: Suppression personnel/equipment will be activated as follows:
 - a. Preserve will request assistance by contacting the Department dispatcher:

Polk County Sheriff's Office
(936) 327-6810
 - b. Department will request assistance by contacting personnel in the following order:
 - 1) BITH Duty Officer
409-656-4505
 - 2) BITH LE Officer
409-673-3303
409-673-3301
409-673-0292
409-673-3006
 - 3) Wildland Fire Operations Spec.
Rodney Monk
409-951-6855 (work)
409-283-0775 (cell)
 - 4) Fire Management Officer
Fulton Jeansonne
409-951-6850 (work)
409-926-6766 (cell)
 - 5) Superintendent
Wayne Prokopetz
409-951-6801 (work)
409-550-8208 (cell)

B. Fire off Preserve Lands:

1. In the event of a wildland fire, the Preserve agrees to:
 - a. Respond to the fire, when called by the requesting Department, with available qualified fire personnel and equipment, unless the absence of this equipment from the Preserve would put the Preserve at risk.
 - b. Cooperate with Department personnel in suppression of the fire.
 - c. Recognize the first fire unit on the scene as Incident Command. The Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.
2. The Department agrees to:
 - a. Establish a clear command structure and provide orders and instructions to Preserve personnel.
 - b. Consult with Preserve Superintendent or designated representative if the fire threatens Preserve administrated property.
 - c. Recognize the first fire unit of the scene as Incident Commander; Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression actions:

C. Operations: Suppression personnel/equipment will be activated as follows:

1. Preserve will request assistance by contacting the Department dispatcher at (936) 327-6810 (Polk County SO).
2. Department will request assistance by contacting personnel in the following order:
 - 1) BITH Duty Officer
409-656-4505
 - 2) Wildland Fire Operations Spec.
Rodney Monk
409-951-6855 (work)
409-283-0775 (cell)

- 3) Fire Management Officer
Fulton Jeansonne
409-951-6850 (work)
409-926-6766 (cell)
- 4) Superintendent
Wayne Prokopetz
409-951-6801 (work)
409-550-8208 (cell)

ARTICLE III – STATEMENT OF WORK:

The term of this **MOU** is five (5) years, commencing upon the date of signature of the final signatory party to the **MOU**.

A. General Provisions:

1. The Preserve and Department mutually agree to the following:
 - a. In the execution of this **MOU**, employees or agents of the Department are not considered employees of the Preserve or NPS.
 - b. The Preserve shall not be obliged to make any expenditure under this **MOU** in excess of funds appropriated by the Congress of the United States and administratively allocated by the NPS for the performance of this **MOU**.
 - c. The Preserve and Department waive all claims against each other for compensation for any loss, damage, personal injury, or death occurring in consequence of the performance of this **MOU**.
 - d. All suppression-qualified personnel will be physically fit.
 - e. The respective parties in this **MOU** will provide personal protection equipment.

ARTICLE IV – KEY OFFICIALS (NPS AND OTHER PARTY)

- A. The Fire Management Officer is designated by the Superintendent to have the authority and responsibility for managing this **MOU** on behalf of the Preserve.
- B. The Chief of Alabama-Coushatta Volunteer Fire Department has the authority and responsibility for managing this **MOU** on behalf of the Department.

C. Agreement Evaluation:

1. The parties will jointly review the results of this **MOU** at the end of each calendar year. The **MOU** may be amended at any time by the written mutual consent of the parties. The approved amendment will immediately become part of this **MOU**.
2. The Preserve will solicit and accept recommendations from the Department command personnel in suppression and rescue procedures, insofar as they do not conflict with Preserve/NPS policies. For purposes of this **MOU**, the Department command personnel are:
 - a. Alabama-Coushatta Fire Chief
William Sylestine
(936) 327-1575
3. The Department will solicit and accept recommendations from the Preserve command personnel in suppression and rescue procedures, insofar as they do not conflict with Department policies. For purposes of this **MOU**, the Preserve command personnel are:
 - a. Fulton Jeansonne, Fire Management Officer
 - b. Rodney Monk, Wildland Fire Operations Spec.
 - c. DW Ivans, Prescribed Fire Spec.
 - d. Merrick Moody, Chief Ranger
 - e. Wayne Prokopetz Neighbor, Superintendent

ARTICLE V – PROPERTY UTILIZATION

- A. Property furnished by the Government or acquired by the other party to the agreement shall be used and disposed of as set forth in the NPS Property Management Regulations. (State not applicable, if no provisions for property are required).

ARTICLE VI – PRIOR APPROVAL, IF APPLICABLE

ARTICLE VII – REPORTS AND /OR DELIVERABLES, IF APPLICABLE

- A. Each Party is responsible for its respective time- keeping and other required records and reports as required by respective agency policy

ARTICLE VIII – TERMINATION

- A. Either party may terminate this **MOU** by providing sixty (60) days advanced written notice to the other party.

ARTICLE IX STANDARD CLAUSES

A. Civil Rights

1. During the performance of this agreement, the participants agree to abide by the terms of Executive Order 11256 on nondiscrimination and will not discriminate against any person because of race, color, religion, sex, or national origin. The participants will take affirmative action to ensure that applicants are employed without regard to their race, color, religion, sex or national origin

B. Officials Not to Benefit

1. No member or delegate to Congress, or resident Commissioner, shall be admitted to any share or part of this agreement, or to any benefit that may arise there from, but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

C. Promotions

1. The Alabama-Coushatta Volunteer Fire Department shall not publicize, or otherwise circulate, promotional material such as advertisements, sales brochures, press releases, speeches, still and motion pictures, articles, manuscripts or other publications) which states or implies Governmental, Departmental, bureau or Government employee endorsement of a product, service, or position which the (party represents. No release of information relating to this agreement may state or imply that the Government approves of the (party's) work product, or considers the party's) work product to be superior to the other products or services.

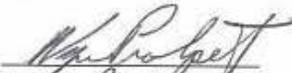
D. Public Information Release

1. (Party) must obtain prior government approval from the Alabama-Coushatta Volunteer Fire Department for any public information releases which refer to the Department of the Interior, any bureau, Preserve unit, or employee (by name or title), or this agreement. The specific text, layout, photographs, etc., of the proposed release must be submitted with the request for approval.

ARTICLE X - AUTHORIZING SIGNATURES

IN WITNESS WHERE OF, the parties hereto have signed their names and executed this General Agreement.

NATIONAL PARK SERVICE
DEPARTMENT

Signature: 
Name: Wade Prokopetz
Title: Superintendent
Date: 7/11/2016

ALABAMA-COUSHATTA VOLUNTEER FIRE

Signature: 
Name: Wilton Sylvestine
Title: Fire Chief
Date: 9/9/16

July 6, 2016

Memorandum of Understanding

Between

BIG THICKET NATIONAL PRESERVE

and

KOUNTZE VOLUNTEER FIRE DEPARTMENT

Article I – BACKGROUND AND OBJECTIVES

A. Purpose

1. The purpose of this **Memorandum Of Understanding** (hereinafter **MOU**) is to provide personal services and equipment required for structural and wildland fire prevention/suppression and the protection of life and property from fire on lands administered by Big Thicket National Preserve (hereinafter Preserve) and to nearby prevention agencies. This **MOU** also covers the use and provisions of the Department's use of tower space at the Ranch House repeater site.

B. Authority:

1. The statutes found at 42 U.S.C. 1856-1856d and 16 U.S.C. 1b (1) provide authority for the National Park Service (hereinafter NPS) to enter into reciprocal agreements and to render emergency firefighting and cooperative assistance to nearby fire prevention agencies to extinguish fires and preserve life and property.
2. The Chief of the Kountze Volunteer Fire Department (hereinafter Department) has signature authority to enter into agreements with the Preserve regarding fire prevention and suppression services on Preserve administered lands.
3. The Preserve Superintendent has signature authority to enter into agreements with the Department regarding fire prevention and suppression services on Preserve administered lands and to provide reciprocal assistance.

ARTICLE II STATEMENT OF WORK

A. Use of tower / building space:

1. Allow radio tower and building space with the following provisions:
 - a. Department equipment will be placed well below all Preserve antennas and hardware.
 - b. Qualified installers, including bonded and insured tower technicians, will perform all installations.
 - c. All equipment will be grounded to the minimum of NFPA 780 Standards and ANSI-J-STD-607-A in order to protect the Preserves equipment. History demonstrates that this site is susceptible to damaging strikes without proper grounding techniques.
 - d. Department will alert the Preserve when planning installation or maintenance of equipment.
 - e. The Department will ensure that installed equipment does not interfere in anyway with Preserve equipment; this includes all space, access, and frequency transmissions.
 - f. The Preserve reserves the right to have the Department's equipment disconnected if interference issues arise. The Department will be advised prior to the disconnection if possible. Otherwise, notification will be made shortly thereafter.
 - g. The preserve assumes no responsibility for the Department's equipment.

B. Fire on Preserve Lands:

1. In the event of a structural or wildland fire, the Department agrees to:
 - a. Respond to the fire with a minimum of one Engine unit (if available) and crew with safety and firefighting equipment, unless the absence of this equipment from the city would put the city of Kountze at risk.
 - b. Cooperate with the Preserve staff in the immediate suppression of the fire.
 - c. Recognize the first fire unit on the scene as Incident Command. Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.
 - d. Recognize that Preserve/NPS policies and requirements may necessitate special or unique firefighting procedures that may differ from Department procedures. The Department will adhere to Preserve/NPS requirements when requested to do so by the Preserve Superintendent or designated representative. For purposes of this

MOU, the following persons will be considered, in descending order as the Superintendent's designated representatives:

- 1) Wayne Prokopetz, Superintendent
- 2) Fulton Jeansonne, Fire Management Officer
- 3) Merrick Moody, Chief Law Enforcement Ranger
- 4) Rodney Monk, Wildland Fire Operations Specialist.

2. The Preserve agrees to:

- a. Provide access to structures as soon as possible, the department is allowed to enter the effective building by the best means possible to suppress a fire when smoke or flames are visible.
- b. Provide qualified wildland firefighting personnel with safety and firefighting equipment.
- c. Cooperate and coordinate with the Department personnel in suppression and rescue activities.
- d. Recognize the first fire unit on the scene as Incident Command Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.

3. Operations: Suppression personnel/equipment will be activated as follows:

- a. Preserve will request assistance by contacting the Department dispatcher:

Hardin County Sheriff's Office
(409) 246-5100

- b. Department will request assistance by contacting personnel in the following order:

- 1) BITH Duty Officer
409-656-4505
- 2) BITH LE Officers
409-673-3303
409-673-3301
409-673-0292
409-673-3306

- 3) Wildland Fire Operations Spec.
Rodney Monk
409-951-6855 (work)
409-283-0775 (cell)
- 4) Fire Management Officer
Fulton Jeansonne
409-951-6850 (work)
409-926-6766 (cell)
- 5) Superintendent
Wayne Prokopetz
409-951-6801 (work)
409-550-8208 (cell)

C. Fire off of Preserve Lands:

1. In the event of a wildland fire, the Preserve agrees to:
 - a. Respond to the fire, when called by the requesting Department, with available qualified fire personnel and equipment, unless the absence of this equipment from the Preserve would put the Preserve at risk.
 - b. Cooperate with Department personnel in suppression of the fire.
 - c. Recognize the first fire unit on the scene as Incident Command. The Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.
2. The Department agrees to:
 - a. Establish a clear command structure and provide orders and instructions to Preserve personnel.
 - b. Consult with Preserve Superintendent or designated representative if the fire threatens Preserve administrated property.
 - c. Recognize the first fire unit of the scene as Incident Commander; Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression actions:

D. Operations: Suppression personnel/equipment will be activated as follows:

1. Preserve will request assistance by contacting the Department dispatcher at 409-246-5100 (Hardin County SO)
2. Department will request assistance by contacting personnel in the following order:
 - 1) BITH Duty Officer
409-656-4505
 - 2) Wildland Fire Operations Spec.
Rodney Monk
409-951-6855 (work)
409-283-0775 (cell)
 - 3) Fire Management Officer
Fulton Jeansonne
409-951-6850 (work)
409-926-6766 (cell)
 - 4) Superintendent
Wayne Prokopetz
409-951-6801 (work)
409-550-8208 (cell)

ARTICLE III – STATEMENT OF WORK:

The term of this **MOU** is five (5) years, commencing upon the date of signature of the final signatory party to the **MOU**.

A. General Provisions:

1. The Preserve and Department mutually agree to the following:
 - a. In the execution of this **MOU**, employees or agents of the Department are not considered employees of the Preserve or NPS.
 - b. The Preserve shall not be obliged to make any expenditure under this **MOU** in excess of funds appropriated by the Congress of the United States and administratively allocated by the NPS for the performance of this **MOU**.
 - c. The Preserve and Department waive all claims against each other for compensation for any loss, damage, personal injury, or death occurring consequence of the performance of this **MOU**.
 - d. All suppression-qualified personnel will be physically fit.

- e. The respective parties in the **MOU** will provide personal protection equipment to this **MOU**.

ARTICLE IV – KEY OFFICIALS (NPS AND OTHER PARTY)

- A. The Fire Management Officer is designated by the Superintendent to have the authority and responsibility for managing this **MOU** on behalf of the Preserve.
- B. The Chief of Kountze Volunteer Fire Department has the authority and responsibility for managing this **MOU** on behalf of the Department.
- C. Agreement Evaluation:
 1. The parties will jointly review the results of this **MOU** at the end of each calendar year. The **MOU** may be amended at any time by the written mutual consent of the parties. The approved amendment will immediately become part of this **MOU**.
 2. The Preserve will solicit and accept recommendations from the Department command personnel in suppression and rescue procedures, insofar as they do not conflict with Preserve/NPS policies. For purposes of this **MOU**, the Department command personnel are:
 - a. Kountze Fire Chief
Jim Stoetpleman
(409) 893-2366
 3. The Department will solicit and accept recommendations from the Preserve command personnel in suppression and rescue procedures, insofar as they do not conflict with Department policies. For purposes of this **MOU**, the Preserve command personnel are:
 - a. Fulton Jeansonne, Fire Management Officer
 - b. Rodney Monk, Wildland Fire Operations Spec.
 - c. DW Ivans, Prescribed Fire Spec.
 - d. Merrick Moody, Chief Ranger
 - e. Wayne Prokopetz Neighbor, Superintendent

ARTICLE V – PROPERTY UTILIZATION

- A. Property furnished by the Government or acquired by the other party to the agreement shall be used and disposed of as set forth in the NPS Property Management Regulations. (State not applicable, if no provisions for property are required).

ARTICLE VI – PRIOR APPROVAL, IF APPLICABLE

ARTICLE VII – REPORTS AND /OR DELIVERABLES, IF APPLICABLE

- A. Each Party is responsible for its respective time- keeping and other required records and reports as required by respective agency policy

ARTICLE VIII – TERMINATION

- A. Either party may terminate this MOU by providing sixty (60) days advanced written notice to the other party.

ARTICLE IX STANDARD CLAUSES

A. Civil Rights

During the performance of this agreement, the participants agree to abide by the terms of Executive Order 11256 on nondiscrimination and will not discriminate against any person because of race, color, religion, sex, or national origin. The participants will take affirmative action to ensure that applicants are employed without regard to their race, color, religion, sex or national origin

B. Officials Not to Benefit

No member or delegate to Congress, or resident Commissioner, shall be admitted to any share or part of this agreement, or to any benefit that may arise there from, but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

C. Promotions

The Kountze Volunteer Fire Department shall not publicize, or otherwise circulate, promotional material such as advertisements, sales brochures, press releases, speeches, still and motion pictures, articles, manuscripts or other publications) which states or implies Governmental , Departmental, bureau or Government employee endorsement of a product, service, or position which the (party represents. No release of information relating to this agreement may state or imply that the Government approves of the (party's) work product, or considers the party's) work product to be superior to the other products or services.

D. Public Information Release

(Party) must obtain prior government approval from the Kountze Volunteer Fire Department for any public information releases which refer to the Department of the Interior, any bureau, Preserve unit, or employee (by name or title), or this agreement. The specific text, layout, photographs, etc., of the proposed release must be submitted with the request for approval.

ARTICLE X – AUTHORIZING SIGNATURES

IN WITNESS HERE OF, the parties hereto have signed their names and executed this General Agreement.

NATIONAL PARK SERVICE

Signature: 
Name: ANDREW P. COOK
Title: SUPERINTENDENT
Date: 7/11/2016

KOUNTZE VOLUNTEER FIRE DEPARTMENT

Signature:
Name: JAMES C. STUEPPLEMAN
Title: FIRE CHIEF
Date: 10/26/16

July 6, 2016

Memorandum Of Understanding

Between

BIG THICKET NATIONAL PRESERVE

and

SARATOGA VOLUNTEER FIRE DEPARTMENT

Article I – BACKGROUND AND OBJECTIVES

A. Purpose

1. The purpose of this **Memorandum Of Understanding** (hereinafter **MOU**) is to provide personal services and equipment required for structural and wildland fire prevention/suppression and the protection of life and property from fire on lands administered by Big Thicket National Preserve (hereinafter Preserve) and to nearby prevention agencies.

B. Authority:

1. The statutes found at 42 U.S.C. 1856-1856d and 16 U.S.C. 1b (1) provide authority for the National Park Service (hereinafter NPS) to enter into reciprocal agreements and to render emergency firefighting and cooperative assistance to nearby fire prevention agencies to extinguish fires and preserve life and property.
2. The Chief of the Saratoga Volunteer Fire Department (hereinafter Department) has signature authority to enter into agreements with the Preserve regarding fire prevention and suppression services on Preserve administered lands.
3. The Preserve Superintendent has signature authority to enter into agreements with the Department regarding fire prevention and suppression services on Preserve administered lands and to provide reciprocal assistance.

ARTICLE II STATEMENT OF WORK

A. Fire on Preserve Lands:

1. In the event of a structural or wildland fire, the Department agrees to:
 - a. Respond to the fire with a minimum of one Engine unit (if available) and crew with safety and firefighting equipment, unless the absence of this equipment from the city would put the city of Saratoga at risk.
 - b. Cooperate with the Preserve staff in the immediate suppression of the fire.
 - c. Recognize the first fire unit on the scene as Incident Command. Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.
 - d. Recognize that Preserve/NPS policies and requirements may necessitate special or unique firefighting procedures that may differ from Department procedures. The Department will adhere to Preserve/NPS requirements when requested to do so by the Preserve Superintendent or designated representative. For purposes of this **MOU**, the following persons will be considered, in descending order as the Superintendent's designated representatives:
 - 1) Wayne Prokopetz, Superintendent
 - 2) Fulton Jeansonne, Fire Management Officer
 - 3) Merrick Moody, Chief Law Enforcement Ranger
 - 4) Rodney Monk, Wildland Fire Operations Specialist.
2. The Preserve agrees to:
 - a. Provide access to structures as soon as possible, the department is allowed to enter the effective building by the best means possible to suppress a fire when smoke or flames are visible.
 - b. Provide qualified wildland firefighting personnel with safety and firefighting equipment.
 - c. Cooperate and coordinate with the Department personnel in suppression and rescue activities.
 - d. Recognize the first fire unit on the scene as Incident Command Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.

3. Operations: Suppression personnel/equipment will be activated as follows:
 - a. Preserve will request assistance by contacting the Department dispatcher:

Hardin County Sheriff's Office
(409) 246-5100

- b. Department will request assistance by contacting personnel in the following order:

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Rodney Monk
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409-951-6850 (work)
409-926-6766 (cell)
- 5) Superintendent
Wayne Prokopetz
409-951-6801 (work)
409-550-8208 (cell)

B. Fire off of Preserve Lands:

1. In the event of a wildland fire, the Preserve agrees to:
 - a. Respond to the fire, when called by the requesting Department, with available qualified fire personnel and equipment, unless the absence of this equipment from the Preserve would put the Preserve at risk.
 - b. Cooperate with Department personnel in suppression of the fire.
 - c. Recognize the first fire unit on the scene as Incident Command. The Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.

2. The Department agrees to:
 - a. Establish a clear command structure and provide orders and instructions to Preserve personnel.
 - b. Consult with Preserve Superintendent or designated representative if the fire threatens Preserve administrated property.
 - c. Recognize the first fire unit of the scene as Incident Commander; Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression actions.

C. Operations: Suppression personnel/equipment will be activated as follows:

1. Preserve will request assistance by contacting the Department dispatcher at 409-246-5100 (Hardin County SO)
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 - 1) BITH Duty Officer
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 - 4) Superintendent
Wayne Prokopetz
409-951-6801 (work)
409-550-8208 (cell)

ARTICLE III – STATEMENT OF WORK:

The term of this **MOU** is five (5) years, commencing upon the date of signature of the final signatory party to the **MOU**.

A. General Provisions:

1. The Preserve and Department mutually agree to the following:

- a. In the execution of this **MOU**, employees or agents of the Department are not considered employees of the Preserve or NPS.
- b. The Preserve shall not be obliged to make any expenditure under this **MOU** in excess of funds appropriated by the Congress of the United States and administratively allocated by the NPS for the performance of this **MOU**.
- c. The Preserve and Department waive all claims against each other for compensation for any loss, damage, personal injury, or death occurring in consequence of the performance of this **MOU**.
- d. All suppression-qualified personnel will be physically fit.
- e. The respective parties in the **MOU** will provide personal protection equipment to this **MOU**.

ARTICLE IV – KEY OFFICIALS (NPS AND OTHER PARTY)

- A. The Fire Management Officer is designated by the Superintendent to have the authority and responsibility for managing this **MOU** on behalf of the Preserve.
- B. The Chief of Saratoga Volunteer Fire Department has the authority and responsibility for managing this **MOU** on behalf of the Department.
- C. Agreement Evaluation:
 1. The parties will jointly review the results of this **MOU** at the end of each calendar year. The **MOU** may be amended at any time by the written mutual consent of the parties. The approved amendment will immediately become part of this **MOU**.
 2. The Preserve will solicit and accept recommendations from the Department command personnel in suppression and rescue procedures, insofar as they do not conflict with Preserve/NPS policies. For purposes of this **MOU**, the Department command personnel are:
 - a. Saratoga Fire Chief
Gary Flowers
(936) 274-5759
 - b. Saratoga Assistant Fire Chief
Jim McClain
(281) 593-9052
 - c. Emergency Number
(936) 274 5050

3. The Department will solicit and accept recommendations from the Preserve command personnel in suppression and rescue procedures, insofar as they do not conflict with Department policies. For purposes of this MOU, the Preserve command personnel are:
 - a. Fulton Jeansonne, Fire Management Officer
 - b. Rodney Monk, Wildland Fire Operations Spec.
 - c. DW Ivans, Prescribed Fire Spec.
 - d. Merrick Moody, Chief Ranger
 - e. Wayne Prokopetz Neighbor, Superintendent

ARTICLE V – PROPERTY UTILIZATION

- A. Property furnished by the Government or acquired by the other party to the agreement shall be used and disposed of as set forth in the NPS Property Management Regulations. (State not applicable, if no provisions for property are required).

ARTICLE VI – PRIOR APPROVAL, IF APPLICABLE

ARTICLE VII – REPORTS AND /OR DELIVERABLES, IF APPLICABLE

- A. Each Party is responsible for its respective time- keeping and other required records and reports as required by respective agency policy

ARTICLE VIII – TERMINATION

- A. Either party may terminate this MOU by providing sixty (60) days advanced written notice to the other party.

ARTICLE IX STANDARD CLAUSES

A. Civil Rights

During the performance of this agreement, the participants agree to abide by the terms of Executive Order 11256 on nondiscrimination and will not discriminate against any person because of race, color, religion, sex, or national origin. The participants will take affirmative action to ensure that applicants are employed without regard to their race, color, religion, sex or national origin

B. Officials Not to Benefit

No member or delegate to Congress, or resident Commissioner, shall be admitted to any share or part of this agreement, or to any benefit that may arise there from, but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

C. Promotions

The Saratoga Volunteer Fire Department shall not publicize, or otherwise circulate, promotional material such as advertisements, sales brochures, press releases, speeches, still and motion pictures, articles, manuscripts or other publications) which states or implies Governmental, Departmental, bureau or Government employee endorsement of a product, service, or position which the (party represents. No release of information relating to this agreement may state or imply that the Government approves of the (party's) work product, or considers the party's) work product to be superior to the other products or services.

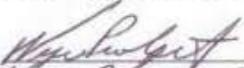
D. Public Information Release

(Party) must obtain prior government approval from the Saratoga Volunteer Fire Department for any public information releases which refer to the Department of the Interior, any bureau, Preserve unit, or employee (by name or title), or this agreement. The specific text, layout, photographs, etc., of the proposed release must be submitted with the request for approval.

ARTICLE X – AUTHORIZING SIGNATURES

IN WITNESS WHERE OF, the parties hereto have signed their names and executed this General Agreement.

NATIONAL PARK SERVICE

Signature: 
Name: Wayne Perko
Title: Superintendent
Date: 7/11/2016

SARATOGA VOLUNTEER FIRE DEPARTMENT

Signature: 
Name: Gary Flowers
Title: Chief
Date: 9-9-16

FIRE MANAGEMENT MEMORANDUM OF UNDERSTANDING
Between
THE NATURE CONSERVANCY, TEXAS CHAPTER
And
BIG THICKET NATIONAL PRESERVE

This is a Fire Management Memorandum of Understanding ("MOU") between The Nature Conservancy, a District of Columbia non-profit corporation, acting through its Texas Chapter, hereinafter referred to as the "Conservancy," and the Big Thicket National Preserve unit of the National Park Service, hereinafter referred to as the "Service." This MOU is to facilitate cooperation of the two parties in wildland fire management. The Service and the Conservancy shall be referred to individually hereinafter as a "Party" and collectively as the "Parties."

AUTHORITY: This MOU is entered into pursuant to the following:

- 1 National Park Service Organic Act of 1916, 16 U.S.C. 1 et seq.
- 2 Disaster Relief and Emergency Assistance Act of May 22, 1974, 42 U.S.C. 5121 et. seq, 88 Stat. 143.
- 3 Federal Grant and Cooperative Agreement Act of 1977, 31 U.S.C. 6301-63080, 96 Stat. 1003, P.L. 960224, as amended by P.L. 97-258, September 13, 1982.

WITNESSETH

WHEREAS, the Conservancy's mission is to conserve the lands and waters on which all life depends; and

WHEREAS, the Conservancy owns and manages conservation lands in Texas; and

WHEREAS, the Service manages public lands within the authorized boundaries of Big Thicket National Preserve that contain a diverse array of plants and animals; and

WHEREAS, the management of many Conservancy and Service lands requires proper use of fire management including prescribed burning and wildfire suppression, in a manner that considers natural resource needs; and

WHEREAS, the Conservancy and the Service have expertise in fire management, including prescribed burning and wildfire suppression, and currently employ or have under contract personnel and equipment capable of performing wildland fire management activities; and

WHEREAS, the Service and the Conservancy benefit from experiences and training gained during wildland fire management activities; and

NOW, THEREFORE, in consideration of the above premises and provisions set forth below, the Parties hereto agree as follows:

1. The following terms shall have the following meanings as used in this MOU:
 - a. **Assisting Party:** Party that provides employees or volunteers to assist the Jurisdictional Party with fire activities.
 - b. **Jurisdictional Party:** The Party that possesses ownership of and/or management authority over the land involved in the fire activities.
 - c. **Burn Boss:** Person responsible for supervising a prescribed fire from ignition through mop-up, on behalf of and at the request of the Jurisdictional Party.
 - d. **Chief-of-Party:** Designated leader of Assisting Party for a particular fire activity.

e. **Project Officer:** Individual for each Party that is responsible for implementation of this MOU.

f. **Incident Commander:** Person determined by local jurisdiction to be responsible for overall management under this MOU of a particular suppression incident. The Burn Boss shall be responsible for oversight of the suppression action until the Incident Commander arrives on site. The Incident Commander may assign one or more deputies from the Jurisdictional Party and/or from an Assisting Party to assist in suppression action.

g. **Conservancy Fire Manager:** Conservancy employee who provides overall fire management supervision and coordination on behalf of the Conservancy for a particular geographic area.

h. **Prescribed Fire:** Any fire ignited by management actions to meet specific objectives.

i. **Wildfire:** An unplanned, unwanted wildland fire including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the fire out.

2. Upon request, personnel and equipment may be provided by the Service to the Conservancy, or the Conservancy to the Service pursuant to the terms and conditions outlined in this MOU. Provision of personnel and equipment shall be at the discretion of each individual Party, depending on workloads, priorities, and fire danger. Staff and equipment provided under this MOU may be used for, but are not limited to, the following purposes:

- a. Technical assistance including preparation or review of site or landscape-level fire management plans and prescribed burn unit plans, forest and other management plans, inventories and analysis.
- b. Preburn preparations including vegetation and fuel load sampling, control line construction and maintenance, environmental monitoring, and fuels manipulation.
- c. Burn implementation including project supervision, ignition, holding, fire behavior and weather monitoring, logistical support and mop-up.
- d. Post-burn monitoring and evaluation.
- e. Fire management training, annual refresher, and annual physical fitness testing.
- f. Wildfire suppression activities.

3. The Jurisdictional Party shall determine who will perform as the Burn Boss for any given fire. The Parties shall mutually agree on who will prepare the prescribed burn plan (the "Burn Plan"). The Burn Plan must be reviewed and approved by the Jurisdictional Party prior to burn implementation. In addition, the Burn Boss must be provided an opportunity to review the Burn Plan prior to burn implementation. For burns in which the Conservancy is the Jurisdictional Party, the Burn Plan must be approved by the designated Conservancy Fire Manager, and must address at a minimum the information listed in Appendix A or follow the National Wildland Fire Coordination Group (NWCG) burn plan template. In addition, when the Conservancy is the Jurisdictional Party and/or when the Conservancy prepares the Burn Plan, the Conservancy will complete an internal consequence analysis for the proposed burn, in accordance with Conservancy policies and procedures.

Each Burn Plan shall contain sufficient specificity with regard to objectives, responsibilities for various activities, reimbursement of costs, and each Party's role in particular tasks. The Burn Plan must be prepared with a high regard for safety and shall require implementation by an experienced Burn Boss. The Burn Plans shall identify the qualifications of burn personnel needed to implement the burn. Contingency planning in the event of an escaped fire will be an essential element of each Burn Plan. To the extent the Party preparing the Burn Plan authorizes another Party to use said plan, the authorization is explicitly limited to the terms and conditions set forth in the Burn Plan. In addition, use of the Burn Plan shall not be authorized if the preparer of the Burn Plan, the Burn Boss, or Jurisdictional Party gives verbal or written indication that burning is not appropriate on any given day. Any use of the Burn Plan shall be at the user's own risk.

4. In the event of an escaped fire, the Burn Boss shall declare the escape and notify local suppression authorities. The Jurisdictional Party and Assisting Party will support local fire suppression agencies as reasonably requested based on skills and qualifications of available personnel.

Conservancy properties have a Wildfire Response Plan (WRP) that considers the ecologically sensitive areas that are important to biodiversity and provides guidance for wildfire suppression. The Parties will request that the Incident Commander follow these plans to the extent practicable when suppressing wildfires involving Conservancy properties. A Conservancy representative may fill the role of resource advisor for Conservancy properties and provide guidance identified in the WRP as requested by the suppression organization, however, the Incident Commander has the ultimate authority on how the fire will be suppressed.

5. In general, the Burn Boss will be an employee, volunteer or contractor of the Jurisdictional Party. However, in the event that the Burn Boss is an employee, volunteer or contractor of the Assisting Party, the final go/no go decision for a particular burn shall be made by the Burn Boss and a representative of the Jurisdictional Party. A Chief-of-Party shall be designated for the purpose of overseeing the Assisting Party's employees and equipment. The Chief-of-Party shall work closely with the Burn Boss and the Jurisdictional Party. Members of the Assisting Party shall follow instructions of the Burn Boss when implementing fire activities under this MOU, provided, however, that if the Chief-of-Party determines that the proposed burn or wildfire suppression is unsafe or has serious concerns about the advisability of burning or engaging in specific wildfire suppression tactics, and is unable to reach a satisfactory agreement with the Burn Boss or Incident Commander to rectify the situation, he or she retains the option of refusing the assignment. Individual crew members of the Assisting Party shall have the right to refuse assignments or directives during a burn that they deem to be unsafe. Such individuals shall report their safety concerns to the Chief-of-Party.

6. The Jurisdictional Party for the burn shall be responsible for consulting with local fire districts, air quality departments, and sheriff offices, for getting necessary permits, licenses, and authorizations (including but not limited to obtaining any necessary governmental burn permits, air quality permits, and other required authorizations) at its own expense, for obtaining access, and for serving as the principal point of contact with third parties. The Jurisdictional Party shall also be responsible for obtaining written permission to burn and waivers of liability from third-party landowners. Release of liability against the Conservancy shall be included on all third-party landowner waiver forms when the Conservancy is assisting the Service on a prescribed burn; where time does not allow the Conservancy to specifically be named, the Conservancy shall be included on third-party waiver forms through a catch-all provision releasing other cooperators from liability.

7. Unless expressly agreed to in a written addendum to this MOU, or separate written agreement, each Party shall pay all salaries and benefits to its own employees and shall cover the costs of operation and maintenance of its own equipment, and there shall be no exchange of funds for the obligations described herein. Notwithstanding the foregoing, the Parties may agree to certain cost-sharing or reimbursement of out-of-pocket expenses in the respective Burn Plan as indicated in Paragraph 3.

8. Personnel dispatched by the Service or by the Conservancy shall meet the qualification standards of the National Wildfire Coordinating Group for the positions that they will occupy. Each Party shall provide information regarding individual crew member qualifications to the other Party upon request. Each Party shall reasonably cooperate regarding fire management training opportunities subject to available resources. The Service and the Conservancy agree to encourage interagency participation in sponsoring and coordinating training activities. This may include sharing instructors, providing slots in each other's training sessions, and, for NWCG qualified personnel, initialing successful completion of tasks in Position Task Books.

9. On behalf of itself, its officers, directors, members, employees, volunteers, agents, and representatives, each Party agrees that it shall be responsible for its own acts and omissions and the results thereof and that it shall not be responsible for the acts or omissions of the other Party, nor the results thereof. To the extent allowed by law, each Party therefore agrees that it will assume the risk and liability to itself, its agents, employees, and volunteers for any injury to or death of persons or loss or destruction of property resulting in any manner from the conduct of its operations and/or the operations of its agents, employees, and/or volunteers under this MOU. To the extent allowed by law, each Party further releases and waives all claims against the other Party for compensation for any loss, cost, damage, expense, personal injury, death, claim, or other liability arising out of the performance of this MOU, (including without limitation any loss, cost, damage, expense, personal injury, death, claim, or other liability arising out of the other Party's negligence, except to the extent caused by the gross negligence or

willful misconduct of the other Party], provided, however, that either Party may agree to voluntarily compensate the other for damage to equipment in accordance with Paragraph 12 below. Notwithstanding the foregoing, the Conservancy shall be entitled to any and all applicable protections afforded under local, state, and/or federal law relating to the fire management activities conducted hereunder, either directly or indirectly through its assistance to the Service, or any government agency.

10. Unless otherwise expressly provided by law, personnel or volunteers of one Party shall not be considered to be agents or employees of the other Party for any purpose, and no joint venture or principal-agent relationship shall be deemed to exist. Each Party shall carry appropriate workers compensation coverage for its employees participating in fire management activities under this MOU.

11. The Parties to this MOU appoint the following Project Officers for implementation of this MOU:

Big Thicket National Preserve

Fire Management Officer
Fulton Jeansonne
6044 FM 420
Kountze, TX 77625
409-951-6850 (Office)
409-926-6766 (Cell)

The Nature Conservancy

Texas Chapter
State Fire Manager
Larry Belles
14630 S. FM 225
Douglass, TX 75943
936-615-0295

Or such other Project Officers as either Party may appoint in the future and have notified the other Party in writing.

12. In the event of injury to personnel or volunteers of any participating Party, the Burn Boss or Incident Commander, as appropriate, shall provide or arrange for immediate medical treatment of any injuries incurred at the scene. Serious accident investigations (including but not limited to escaped prescribed fire and accidents involving hospitalization or fatalities) will be undertaken at the discretion of either Party. The Parties will reasonably cooperate in any such investigation. In the event that the Assisting Party's equipment is excessively damaged (i.e., in excess of \$1000.00) or destroyed, an investigation shall be conducted in accordance with the Jurisdictional Party's policy and procedures. The investigation will produce a recommendation for reimbursement, replacement or repair. The Project Officers shall communicate promptly regarding any injury to personnel or damage to equipment and documentation shall be provided as requested.

13. Each Party shall carry at least \$5,000,000 of hazard and liability insurance with AM Best rating of A or better, written on an occurrence basis during the term of this MOU. Such insurance shall cover prescribed burn activities, including accidents or injuries resulting from smoke. If the Service is self-insured, a Certification of Self-Insurance shall be provided to the Conservancy upon request. If the Conservancy finds the Service's insurance coverage to be insufficient, the Conservancy may terminate this MOU. The Jurisdictional Party's insurance (including self-insurance) shall be primary to any insurance available to the Assisting Party with respect to any claim.

14. This MOU shall be effective from signature date by both Parties and, unless terminated earlier shall continue in effect until November 1, 2019. This MOU supersedes all prior or contemporaneous communications and negotiations, both oral and written and constitutes the entire agreement between the Parties relating to the work set out above. No amendment shall be effective except in writing signed by

the Parties. Any Party may withdraw from this MOU thirty days following written notification to the other Party.

15 This MOU shall be interpreted, construed and governed by the laws of Texas and any applicable federal laws. In the event of any litigation over the interpretation or application of any of the terms or provisions of this MOU, the Parties agree that litigation shall be conducted in Travis County, State of Texas.

16. If any provision of this MOU is held invalid by a court of competent jurisdiction, the other provisions shall not be deemed invalid as a result, and the Parties shall revise this MOU as necessary consistent with the intent of the Parties. Any recital or preliminary statement in this MOU and all Exhibits referred to in this MOU are an integral part of this MOU and are incorporated by reference into this MOU.

17. This MOU may be executed in counterparts, each of which when executed shall be deemed to be an original and all of which when taken together shall constitute one and the same agreement.

18. When serving as members of an Assisting Party pursuant to this MOU on land owned by the Service, Conservancy volunteers, as documented under a current Volunteer Agreement form, shall be considered volunteers of the Service under 16 U.S.C. 18g-18j or any successor statutes or regulations and, therefore shall be deemed Federal employees for purposes of injury compensation benefits and tort liability protection under 16 U.S.C. 18i(b)-(d) or any successor statutes or regulations. Conservancy volunteers shall not be considered Federal employees for any purpose other than injury compensation benefits and tort liability protection under these circumstances.

IN WITNESS WHEREOF, the Parties have executed this MOU, effective as of the last date written below.

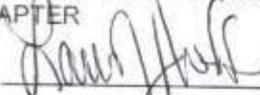
BIG THICKET NATIONAL PRESERVE

By: 
Print Name: Wayne Prokopetz

Its: Superintendent

Date: 7/7/2016

THE NATURE CONSERVANCY, TEXAS
CHAPTER

By: 
Print Name: Laura Huffman

Its: Texas State Director

Date: 7-19-16

July 6, 2016

Memorandum Of Understanding

Between

BIG THICKET NATIONAL PRESERVE

and

WARREN VOLUNTEER FIRE DEPARTMENT

Article I – BACKGROUND AND OBJECTIVES

A. Purpose

1. The purpose of this **Memorandum Of Understanding** (hereinafter **MOU**) is to provide personal services and equipment required for structural and wildland fire prevention/suppression and the protection of life and property from fire on lands administered by Big Thicket National Preserve (hereinafter Preserve) and to nearby prevention agencies.

B. Authority:

1. The statutes found at 42 U.S.C. 1856-1856d and 16 U.S.C. 1b (1) provide authority for the National Park Service (hereinafter NPS) to enter into reciprocal agreements and to render emergency firefighting and cooperative assistance to nearby fire prevention agencies to extinguish fires and preserve life and property.
2. The Chief of the Warren Volunteer Fire Department (hereinafter Department) has signature authority to enter into agreements with the Preserve regarding fire prevention and suppression services on Preserve administered lands.
3. The Preserve Superintendent has signature authority to enter into agreements with the Department regarding fire prevention and suppression services on Preserve administered lands and to provide reciprocal assistance.

ARTICLE II STATEMENT OF WORK

A. Fire on Preserve Lands:

1. In the event of a structural or wildland fire, the Department agrees to:
 - a. Respond to the fire with a minimum of one Engine unit (if available) and crew with safety and firefighting equipment, unless the absence of this equipment from the city would put the city of Warren at risk.
 - b. Cooperate with the Preserve staff in the immediate suppression of the fire.
 - c. Recognize the first fire unit on the scene as Incident Command. Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.
 - d. Recognize that Preserve/NPS policies and requirements may necessitate special or unique firefighting procedures that may differ from Department procedures. The Department will adhere to Preserve/NPS requirements when requested to do so by the Preserve Superintendent or designated representative. For purposes of this **MOU**, the following persons will be considered, in descending order as the Superintendent's designated representatives:
 - 1) Wayne Prokopetz, Superintendent
 - 2) Fulton Jeansonne, Fire Management Officer
 - 3) Merrick Moody, Chief Law Enforcement Ranger
 - 4) Rodney Monk, Wildland Fire Operations Specialist.
2. The Preserve agrees to:
 - a. Provide access to structures as soon as possible, the department is allowed to enter the effective building by the best means possible to suppress a fire when smoke or flames are visible.
 - b. Provide qualified wildland firefighting personnel with safety and firefighting equipment.
 - c. Cooperate and coordinate with the Department personnel in suppression and rescue activities.
 - d. Recognize the first fire unit on the scene as Incident Command Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and

- assignments from Incident Command prior to taking suppression action.
3. Operations: Suppression personnel/equipment will be activated as follows:

- a. Preserve will request assistance by contacting the Department dispatcher:

Tyler County Sheriff's Office
(409) 283-2172

- b. Department will request assistance by contacting personnel in the following order:

- 1) BITH Duty Officer
409-656-4505
- 2) BITH LE Officer
409-673-3303
409-673-3301
409-673-0292
409-673-3306
- 3) Wildland Fire Operations Spec.
Rodney Monk
409-951-6855 (work)
409-283-0775 (cell)
- 4) Fire Management Officer
Fulton Jeansonne
409-951-6850 (work)
409-926-6766 (cell)
- 5) Superintendent
Wayne Prokopetz
409-951-6801 (work)
409-550-8208 (cell)

B. Fire off of Preserve Lands:

1. In the event of a wildland fire, the Preserve agrees to:
 - a. Respond to the fire, when called by the requesting Department, with available qualified fire personnel and equipment, unless the absence of this equipment from the Preserve would put the Preserve at risk.
 - b. Cooperate with Department personnel in suppression of the fire.
 - c. Recognize the first fire unit on the scene as Incident Command. The Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.

2. The Department agrees to:

- a. Establish a clear command structure and provide orders and instructions to Preserve personnel.
- b. Consult with Preserve Superintendent or designated representative if the fire threatens Preserve administrated property.
- c. Recognize the first fire unit of the scene as Incident Commander; Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression actions:

C. Operations: Suppression personnel/equipment will be activated as follows:

1. Preserve will request assistance by contacting the Department dispatcher at Tyler County Sheriff's Office (409) 283-2172
2. Department will request assistance by contacting personnel in the following order:
 - 1) BITH Duty Officer
409-656-4505
 - 2) Wildland Fire Operations Spec.
Rodney Monk
409-951-6855 (work)
409-283-0775 (cell)
 - 3) Fire Management Officer
Fulton Jeansonne
409-951-6850 (work)
409-926-6766 (cell)
 - 4) Superintendent
Wayne Prokopetz
409-951-6801 (work)
409-550-8208 (cell)

ARTICLE III – STATEMENT OF WORK:

The term of this **MOU** is five (5) years, commencing upon the date of signature of the final signatory party to the **MOU**.

A. General Provisions:

1. The Preserve and Department mutually agree to the following:
 - a. In the execution of this **MOU**, employees or agents of the Department are not considered employees of the Preserve or NPS.
 - b. The Preserve shall not be obliged to make any expenditure under this **MOU** in excess of funds appropriated by the Congress of the United States and administratively allocated by the NPS for the performance of this **MOU**.
 - c. The Preserve and Department waive all claims against each other for compensation for any loss, damage, personal injury, or death occurring consequence of the performance of this **MOU**.
 - d. All suppression-qualified personnel will be physically fit.
 - e. The respective parties in this **MOU** will provide personal protection equipment.

ARTICLE IV – KEY OFFICIALS (NPS AND OTHER PARTY)

- A. The Fire Management Officer is designated by the Superintendent to have the authority and responsibility for managing this **MOU** on behalf of the Preserve.
- B. The Chief of Saratoga Volunteer Fire Department has the authority and responsibility for managing this **MOU** on behalf of the Department.

C. Agreement Evaluation:

1. The parties will jointly review the results of this **MOU** at the end of each calendar year. The **MOU** may be amended at any time by the written mutual consent of the parties. The approved amendment will immediately become part of this **MOU**.
2. The Preserve will solicit and accept recommendations from the Department command personnel in suppression and rescue procedures, insofar as they do not conflict with Preserve/NPS policies. For purposes of this **MOU**, the Department command personnel are:
 - a. Ryan Knott Chief
409-547-3162
 - b. Jimmy Mowlan Assist Chief
409-547-3036

3. The Department will solicit and accept recommendations from the Preserve command personnel in suppression and rescue procedures, insofar as they do not conflict with Department policies. For purposes of this MOU, the Preserve command personnel are:
 - a. Fulton Jeansonne, Fire Management Officer
 - b. Rodney Monk, Wildland Fire Operations Spec.
 - c. DW Ivans, Prescribed Fire Spec.
 - d. Merrick Moody, Chief Ranger
 - e. Wayne Prokopetz Neighbor, Superintendent

ARTICLE V – PROPERTY UTILIZATION

- A. Property furnished by the Government or acquired by the other party to the agreement shall be used and disposed of as set forth in the NPS Property Management Regulations. (State not applicable, if no provisions for property are required).

ARTICLE VI – PRIOR APPROVAL, IF APPLICABLE

ARTICLE VII – REPORTS AND /OR DELIVERABLES, IF APPLICABLE

- A. Each Party is responsible for its respective time- keeping and other required records and reports as required by respective agency policy

ARTICLE VIII – TERMINATION

- A. Either party may terminate this MOU by providing sixty (60) days advanced written notice to the other party.

ARTICLE IX STANDARD CLAUSES

A. Civil Rights

During the performance of this agreement, the participants agree to abide by the terms of Executive Order 11256 on nondiscrimination and will not discriminate against any person because of race, color, religion, sex, or national origin. The participants will take affirmative action to ensure that applicants are employed without regard to their race, color, religion, sex or national origin

B. Officials Not to Benefit

No member or delegate to Congress, or resident Commissioner, shall be admitted to any share or part of this agreement, or to any benefit that may arise there from, but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

C. Promotions

The Warren Volunteer Fire Department shall not publicize, or otherwise circulate, promotional material such as advertisements, sales brochures, press releases, speeches, still and motion pictures, articles, manuscripts or other publications) which states or implies Governmental, Departmental, bureau or Government employee endorsement of a product, service, or position which the (party represents. No release of information relating to this agreement may state or imply that the Government approves of the (party's) work product, or considers the party's work product to be superior to the other products or services.

D. Public Information Release

(Party) must obtain prior government approval from the Warren Volunteer Fire Department for any public information releases which refer to the Department of the Interior, any bureau, Preserve unit, or employee (by name or title), or this agreement. The specific text, layout, photographs, etc., of the proposed release must be submitted with the request for approval.

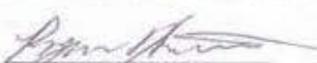
ARTICLE X – AUTHORIZING SIGNATURES

IN WITNESS WHERE OF, the parties hereto have signed their names and executed this General Agreement.

NATIONAL PARK SERVICE

WARREN VOLUNTEER FIRE DEPARTMENT

Signature: 
Name: William Prusoff
Title: Superintendent
Date: 7/11/2016

Signature: 
Name: Bryan Knott
Title: Fire Chief
Date: 8-29-16

July 6, 2016

Memorandum Of Understanding

Between

BIG THICKET NATIONAL PRESERVE

and

WILDWOOD VOLUNTEER FIRE DEPARTMENT

Article I – BACKGROUND AND OBJECTIVES

A. Purpose

1. The purpose of this **Memorandum Of Understanding** (hereinafter **MOU**) is to provide personal services and equipment required for structural and wildland fire prevention/suppression and the protection of life and property from fire on lands administered by Big Thicket National Preserve (hereinafter Preserve) and to nearby prevention agencies.

B. Authority:

1. The statutes found at 42 U.S.C. 1856-1856d and 16 U.S.C. 1b (1) provide authority for the National Park Service (hereinafter NPS) to enter into reciprocal agreements and to render emergency firefighting and cooperative assistance to nearby fire prevention agencies to extinguish fires and preserve life and property.
2. The Chief of the Wildwood Volunteer Fire Department (hereinafter Department) has signature authority to enter into agreements with the Preserve regarding fire prevention and suppression services on Preserve administered lands.
3. The Preserve Superintendent has signature authority to enter into agreements with the Department regarding fire prevention and suppression services on Preserve administered lands and to provide reciprocal assistance.

ARTICLE II STATEMENT OF WORK

A. Fire on Preserve Lands:

1. In the event of a structural or wildland fire, the Department agrees to:
 - a. Respond to the fire with a minimum of one Engine unit (if available) and crew with safety and firefighting equipment, unless the absence of this equipment from the city would put the city of Wildwood at risk.
 - b. Cooperate with the Preserve staff in the immediate suppression of the fire.
 - c. Recognize the first fire unit on the scene as Incident Command. Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.
 - d. Recognize that Preserve/NPS policies and requirements may necessitate special or unique firefighting procedures that may differ from Department procedures. The Department will adhere to Preserve/NPS requirements when requested to do so by the Preserve Superintendent or designated representative. For purposes of this **MOU**, the following persons will be considered, in descending order as the Superintendent's designated representatives:
 - 1) Wayne Prokopetz, Superintendent
 - 2) Fulton Jeansonne, Fire Management Officer
 - 3) Merrick Moody, Chief Law Enforcement Ranger
 - 4) Rodney Monk, Wildland Fire Operations Specialist.
2. The Preserve agrees to:
 - a. Provide access to structures as soon as possible, the department is allowed to enter the effective building by the best means possible to suppress a fire when smoke or flames are visible.
 - b. Provide qualified wildland firefighting personnel with safety and firefighting equipment.
 - c. Cooperate and coordinate with the Department personnel in suppression and rescue activities.
 - d. Recognize the first fire unit on the scene as Incident Command Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.

3. Operations: Suppression personnel/equipment will be activated as follows:

a. Preserve will request assistance by contacting the Department dispatcher:

Wildwood Security Gate
(409) 834-2244

b. Department will request assistance by contacting personnel in the following order:

- 1) BITH Duty Officer
409-656-4505
- 2) BITH LE Officer
409-673-3303
409-673-3301
409-673-0292
409-673-3306
- 3) Wildland Fire Operations Spec.
Rodney Monk
409-951-6855 (work)
409-283-0775 (cell)
- 4) Fire Management Officer
Fulton Jeansonne
409-951-6850 (work)
409-926-6766 (cell)
- 5) Superintendent
Wayne Prokopetz
409-951-6801 (work)
409-550-8208 (cell)

B. Fire off of Preserve Lands:

1. In the event of a wildland fire, the Preserve agrees to:

- a. Respond to the fire, when called by the requesting Department, with available qualified fire personnel and equipment, unless the absence of this equipment from the Preserve would put the Preserve at risk.
- b. Cooperate with Department personnel in suppression of the fire.
- c. Recognize the first fire unit on the scene as Incident Command. The Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.

2. The Department agrees to:

- a. Establish a clear command structure and provide orders and instructions to Preserve personnel.
- b. Consult with Preserve Superintendent or designated representative if the fire threatens Preserve administrated property.
- c. Recognize the first fire unit of the scene as Incident Commander; Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression actions:

C. Operations: Suppression personnel/equipment will be activated as follows:

1. Preserve will request assistance by contacting the Department dispatcher at Wildwood Security Gate (409) 834-2244 or Tyler County Sheriff's Office (409) 283-2172
2. Department will request assistance by contacting personnel in the following order:
 - 1) BITH Duty Officer
409-656-4505
 - 2) Wildland Fire Operations Spec.
Rodney Monk
409-951-6855 (work)
409-283-0775 (cell)
 - 3) Fire Management Officer
Fulton Jeansonne
409-951-6850 (work)
409-926-6766 (cell)
 - 4) Superintendent
Wayne Prokopetz
409-951-6801 (work)
409-550-8208 (cell)

ARTICLE III – STATEMENT OF WORK:

The term of this **MOU** is five (5) years, commencing upon the date of signature of the final signatory party to the **MOU**.

A. General Provisions:

1. The Preserve and Department mutually agree to the following:
 - a. In the execution of this **MOU**, employees or agents of the Department are not considered employees of the Preserve or NPS.
 - b. The Preserve shall not be obliged to make any expenditure under this **MOU** in excess of funds appropriated by the Congress of the United States and administratively allocated by the NPS for the performance of this **MOU**.
 - c. The Preserve and Department waive all claims against each other for compensation for any loss, damage, personal injury, or death occurring in consequence of the performance of this **MOU**.
 - d. All suppression-qualified personnel will be physically fit.
 - e. The respective parties in this **MOU** will provide personal protection equipment.

ARTICLE IV – KEY OFFICIALS (NPS AND OTHER PARTY)

- A. The Fire Management Officer is designated by the Superintendent to have the authority and responsibility for managing this **MOU** on behalf of the Preserve.
- B. The Chief of Wildwood Volunteer Fire Department has the authority and responsibility for managing this **MOU** on behalf of the Department.
- C. Agreement Evaluation:
 1. The parties will jointly review the results of this **MOU** at the end of each calendar year. The **MOU** may be amended at any time by the written mutual consent of the parties. The approved amendment will immediately become part of this **MOU**.
 2. The Preserve will solicit and accept recommendations from the Department command personnel in suppression and rescue procedures, insofar as they do not conflict with Preserve/NPS policies. For purposes of this **MOU**, the Department command personnel are:
 - a. Wildwood Fire Chief
Randy Odom
(409) 673-0684 (Cell)

- b. Wildwood Assistant Chief
Stacey Kehtel
(409) 781-2380
3. The Department will solicit and accept recommendations from the Preserve command personnel in suppression and rescue procedures, insofar as they do not conflict with Department policies. For purposes of this MOU, the Preserve command personnel are:
- a. Fulton Jeansonne, Fire Management Officer
 - b. Rodney Monk, Wildland Fire Operations Spec.
 - c. DW Ivans, Prescribed Fire Spec.
 - d. Merrick Moody, Chief Ranger
 - e. Wayne Prokopetz Neighbor, Superintendent

ARTICLE V – PROPERTY UTILIZATION

- A. Property furnished by the Government or acquired by the other party to the agreement shall be used and disposed of as set forth in the NPS Property Management Regulations. (State not applicable, if no provisions for property are required).

ARTICLE VI – PRIOR APPROVAL, IF APPLICABLE

ARTICLE VII – REPORTS AND /OR DELIVERABLES, IF APPLICABLE

- A. Each Party is responsible for its respective time- keeping and other required records and reports as required by respective agency policy

ARTICLE VIII – TERMINATION

- A. Either party may terminate this MOU by providing sixty (60) days advanced written notice to the other party.

ARTICLE IX STANDARD CLAUSES

A. Civil Rights

During the performance of this agreement, the participants agree to abide by the terms of Executive Order 11256 on nondiscrimination and will not discriminate against any person because of race, color, religion, sex, or national origin. The participants will take affirmative action to ensure that applicants are employed without regard to their race, color, religion, sex, or national origin

B. Officials Not to Benefit

No member or delegate to Congress, or resident Commissioner, shall be admitted to any share or part of this agreement, or to any benefit that may arise there from, but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

C. Promotions

The Wildwood Volunteer Fire Department shall not publicize, or otherwise circulate, promotional material such as advertisements, sales brochures, press releases, speeches, still and motion pictures, articles, manuscripts or other publications) which states or implies Governmental, Departmental, bureau or Government employee endorsement of a product, service, or position which the (party represents. No release of information relating to this agreement may state or imply that the Government approves of the (party's) work product, or considers the party's) work product to be superior to the other products or services.

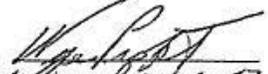
D. Public Information Release

(Party) must obtain prior government approval from the Wildwood Volunteer Fire Department for any public information releases which refer to the Department of the Interior, any bureau, Preserve unit, or employee (by name or title), or this agreement. The specific text, layout, photographs, etc., of the proposed release must be submitted with the request for approval.

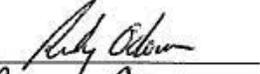
ARTICLE X – AUTHORIZING SIGNATURES

IN WITNESS WHERE OF, the parties hereto have signed their names and executed this General Agreement.

NATIONAL PARK SERVICE

Signature: 
Name: W. J. P. [unclear]
Title: Superintendent
Date: 7/1/2016

WILDWOOD VOLUNTEER FIRE DEPARTMENT

Signature: 
Name: Randy Odom
Title: FIRE CHIEF
Date: 9-20-16

July 6, 2016

Memorandum Of Understanding

Between

BIG THICKET NATIONAL PRESERVE

and

WOODVILLE VOLUNTEER FIRE DEPARTMENT

Article I – BACKGROUND AND OBJECTIVES

A. Purpose

1. The purpose of this **Memorandum Of Understanding** (hereinafter **MOU**) is to provide personal services and equipment required for structural and wildland fire prevention/suppression and the protection of life and property from fire on lands administered by Big Thicket National Preserve (hereinafter Preserve) and to nearby prevention agencies.

B. Authority:

1. The statutes found at 42 U.S.C. 1856-1856d and 16 U.S.C. 1b (1) provide authority for the National Park Service (hereinafter NPS) to enter into reciprocal agreements and to render emergency firefighting and cooperative assistance to nearby fire prevention agencies to extinguish fires and preserve life and property.
2. The Chief of the Woodville Volunteer Fire Department (hereinafter Department) has signature authority to enter into agreements with the Preserve regarding fire prevention and suppression services on Preserve administered lands.
3. The Preserve Superintendent has signature authority to enter into agreements with the Department regarding fire prevention and suppression services on Preserve administered lands and to provide reciprocal assistance.

ARTICLE II STATEMENT OF WORK

A. Fire on Preserve Lands:

1. In the event of a structural or wildland fire, the Department agrees to:
 - a. Respond to the fire with a minimum of one Engine unit (if available) and crew with safety and firefighting equipment, unless the absence of this equipment from the city would put the city of Woodville at risk.
 - b. Cooperate with the Preserve staff in the immediate suppression of the fire.
 - c. Recognize the first fire unit on the scene as Incident Command. Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.
 - d. Recognize that Preserve/NPS policies and requirements may necessitate special or unique firefighting procedures that may differ from Department procedures. The Department will adhere to Preserve/NPS requirements when requested to do so by the Preserve Superintendent or designated representative. For purposes of this **MOU**, the following persons will be considered, in descending order as the Superintendent's designated representatives:
 - 1) Wayne Prokopetz, Superintendent
 - 2) Fulton Jeansonne, Fire Management Officer
 - 3) Merrick Moody, Chief Law Enforcement Ranger
 - 4) Rodney Monk, Wildland Fire Operations Specialist.
2. The Preserve agrees to:
 - a. Provide access to structures as soon as possible, the department is allowed to enter the effective building by the best means possible to suppress a fire when smoke or flames are visible.
 - b. Provide qualified wildland firefighting personnel with safety and firefighting equipment.
 - c. Cooperate and coordinate with the Department personnel in suppression and rescue activities.
 - d. Recognize the first fire unit on the scene as Incident Command Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.

3. Operations: Suppression personnel/equipment will be activated as follows:

a. Preserve will request assistance by contacting the Department dispatcher:

Tyler County Sheriff's Office
(409) 283-2172

b. Department will request assistance by contacting personnel in the following order:

- 1) BITH Duty Officer
409-656-4505
- 2) BITH LE Officer
409-673-3303
409-673-3301
409-673-0292
409-673-3306
- 3) Wildland Fire Operations Spec.
Rodney Monk
409-951-6855 (work)
409-283-0775 (cell)
- 4) Fire Management Office
Fulton Jeansonne
409-951-6850 (work)
409-926-6766 (cell)
- 5) Superintendent
Wayne Prokopetz
409-951-6801 (work)
409-550-8208 (cell)

B. Fire off of Preserve Lands:

1. In the event of a wildland fire, the Preserve agrees to:

- a. Respond to the fire, when called by the requesting Department, with available qualified fire personnel and equipment, unless the absence of this equipment from the Preserve would put the Preserve at risk.
- b. Cooperate with Department personnel in suppression of the fire.
- c. Recognize the first fire unit on the scene as Incident Command. The Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression action.

2. The Department agrees to:

- a. Establish a clear command structure and provide orders and instructions to Preserve personnel.
- b. Consult with Preserve Superintendent or designated representative if the fire threatens Preserve administrated property.
- c. Recognize the first fire unit of the scene as Incident Commander; Incident Command will be passed to a qualified representative of the jurisdiction in which the fire occurs. All responding fire and emergency units will obtain briefings and assignments from Incident Command prior to taking suppression actions.

C. Operations: Suppression personnel/equipment will be activated as follows:

1. Preserve will request assistance by contacting the Department dispatcher at Tyler County Sheriff's Officer at 409-283-2172
2. Department will request assistance by contacting personnel in the following order:
 - 1) BITH Duty Officer
409-656-4505
 - 2) Wildland Fire Operations Spec.
Rodney Monk
409-951-6855 (work)
409-283-0775 (cell)
 - 3) Fire Management Officer
Fulton Jeansonne
409-951-6850 (work)
409-926-6766 (cell)
 - 4) Superintendent
Wayne Prokopetz
409-951-6801 (work)
409-550-8208 (cell)

ARTICLE III – STATEMENT OF WORK:

The term of this **MOU** is five (5) years, commencing upon the date of signature of the final signatory party to the **MOU**.

A. General Provisions:

1. The Preserve and Department mutually agree to the following:
 - a. In the execution of this **MOU**, employees or agents of the Department are not considered employees of the Preserve or NPS.
 - b. The Preserve shall not be obliged to make any expenditure under this **MOU** in excess of funds appropriated by the Congress of the United States and administratively allocated by the NPS for the performance of this **MOU**.
 - c. The Preserve and Department waive all claims against each other for compensation for any loss, damage, personal injury, or death occurring in consequence of the performance of this **MOU**.
 - d. All suppression-qualified personnel will be physically fit.
 - e. The respective parties in this **MOU** will provide personal protection equipment to this **MOU**.

ARTICLE IV – KEY OFFICIALS (NPS AND OTHER PARTY)

- A. The Fire Management Officer is designated by the Superintendent to have the authority and responsibility for managing this **MOU** on behalf of the Preserve.
- B. The Chief of Woodville Volunteer Fire Department has the authority and responsibility for managing this **MOU** on behalf of the Department.
- C. Agreement Evaluation:
 1. The parties will jointly review the results of this **MOU** at the end of each calendar year. The **MOU** may be amended at any time by the written mutual consent of the parties. The approved amendment will immediately become part of this **MOU**.
 2. The Preserve will solicit and accept recommendations from the Department command personnel in suppression and rescue procedures, insofar as they do not conflict with Preserve/NPS policies. For purposes of this **MOU**, the Department command personnel are:
 - a. Chief Tommy Shane
(409) 283-2103
 3. The Department will solicit and accept recommendations from the Preserve command personnel in suppression and rescue procedures, insofar as they do not conflict with

Department policies. For purposes of this **MOU**, the Preserve command personnel are:

- a. Fulton Jeansonne, Fire Management Officer
- b. Rodney Monk, Wildland Fire Operations Spec.
- c. DW Ivans, Prescribed Fire Spec.
- d. Merrick Moody, Chief Ranger
- e. Wayne Prokopetz Neighbor, Superintendent

ARTICLE V – PROPERTY UTILIZATION

- A. Property furnished by the Government or acquired by the other party to the agreement shall be used and disposed of as set forth in the NPS Property Management Regulations. (State not applicable, if no provisions for property are required).

ARTICLE VI – PRIOR APPROVAL, IF APPLICABLE

ARTICLE VII – REPORTS AND /OR DELIVERABLES, IF APPLICABLE

- A. Each Party is responsible for its respective time- keeping and other required records and reports as required by respective agency policy

ARTICLE VIII – TERMINATION

- A. Either party may terminate this MOU by providing sixty (60) days advanced written notice to the other party.

ARTICLE IX STANDARD CLAUSES

A. Civil Rights

During the performance of this agreement, the participants agree to abide by the terms of Executive Order 11256 on nondiscrimination and will not discriminate against any person because of race, color, religion, sex, or national origin. The participants will take affirmative action to ensure that applicants are employed without regard to their race, color, religion, sex, or national origin

B. Officials Not to Benefit

No member or delegate to Congress, or resident Commissioner, shall be admitted to any share or part of this agreement, or to any benefit that may arise there from, but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

C. Promotions

C. Promotions

The Woodville Volunteer Fire Department shall not publicize, or otherwise circulate, promotional material such as advertisements, sales brochures, press releases, speeches, still and motion pictures, articles, manuscripts or other publications) which states or implies Governmental , Departmental, bureau or Government employee endorsement of a product, service, or position which the (party represents. No release of information relating to this agreement may state or imply that the Government approves of the (party's) work product, or considers the party's) work product to be superior to the other products or services.

D. Public Information Release

(Party) must obtain prior government approval from the Woodville Volunteer Fire Department for any public information releases which refer to the Department of the Interior, any bureau, Preserve unit, or employee (by name or title), or this agreement. The specific text, layout, photographs, etc., of the proposed release must be submitted with the request for approval.

ARTICLE X – AUTHORIZING SIGNATURES

IN WITNESS HERE OF, the parties hereto have signed their names and executed this General Agreement.

NATIONAL PARK SERVICE

Signature: *Wahynis Prokopetz*
Name: Wahynis Prokopetz
Title: Superintendent
Date: 7/11/2016

WOODVILLE VOLUNTEER FIRE DEPARTMENT

Signature: *Terry D. Shave*
Name: Terry D. Shave
Title: Chief
Date: 9-12-16

APPENDIX I – Serious Injury or Death Procedure

Fire management activities (planned and unplanned wildfires, all hazard incidents, pack tests, etc.) will prepare an ICS 206 Medical Plan as part of the planning and preparedness process. The form(s) can be found at:

<https://www.nwcg.gov/publications/ics-forms>

National Park Service serious injury or death procedures can be found in the following documents.

- Agency Administrator’s Guide to Critical Incident Management

The Agency Administrator’s Guide to Critical Incident Management is designed to assist Agency Administrators in dealing with critical incidents. A critical incident may be defined as a fatality or other event that can have serious long-term adverse effects on the agency, its employees and their families or the community. Although fire incidents inspired this document, it also has application to other types of incidents.

<https://www.nwcg.gov/publications/926>

- National Park Service – Loss Of Human Life Response Handbook

Establish clear and specific policy and procedures for managing National Park Service (NPS) response to all incidents and accidents that result in the loss of life of an NPS employee.

<https://www.nps.gov/applications/npspolicy/index.cfm>

- Reference Manual 9 – Chapter 36 Serious Incident Notification Requirements and Procedures

Fill out the form located at the link below to notify NPS leadership of an event:

https://docs.google.com/a/nps.gov/forms/d/e/1FAIpQLSedZxYseWXTTo8EtaxlxYXu - KZtwEDTZrqA_s29VnM5lwxKA/viewform

APPENDIX J – Smoke Management



Outdoor Burning in Texas

Field Operations

Texas Commission on Environmental Quality

RG-049
Revised February 2015





Texas Commission on Environmental Quality

Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Zak Covar, *Commissioner*

Richard A. Hyde, P.E., *Executive Director*

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Outdoor Burning in Texas

Field Operations

Texas
Commission on
Environmental
Quality



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Introduction

This guide helps interpret the revised Outdoor Burning Rule, Title 30, Texas Administrative Code, Sections 111.201–221,¹ for the general public, the regulated community, and responsible state and local officials.

This document covers all aspects of the outdoor burning rule, including:

- exceptions that allow outdoor burning
- general requirements for allowing outdoor burning
- notification requirements for allowable outdoor burning

At the end of various sections, common questions relating to the material in the section are answered.

State and local officials may find Appendixes C and D to be particularly useful. They contain a copy of the rule itself and background information for each of its sections.

This guide is not a substitute for the actual rule. A current copy of the rule can be obtained from the TCEQ by calling 512-239-0028, or online at <www.tceq.texas.gov/rules>.

Limitations of This Guide

This document does not include requirements of other government agencies. Local ordinances and governmental entities may restrict when, where, how, and if individuals and organizations can conduct outdoor burning.

Some municipalities have enacted local ordinances that prohibit or restrict outdoor fires within their corporate limits. Residents should always check with municipal officials about possible limitations on outdoor burning so they do not unintentionally violate an existing ordinance.

During extreme fire danger, governmental units may ban outdoor burning to help prevent possibly disastrous wildfires. A county judge and county commissioners' court may issue a ban on outdoor burning that is applicable to unincorporated portions of the county.

In addition, Texas criminal statutes specify penalties that pertain to escaped control fires and wildland fires that were deliberately set. Persons responsible for escaped control or arson wildfires may also be faced with civil suits for damages caused by these fires.

¹ In this document, "30 TAC 111" is short for "Title 30, Texas Administrative Code, Chapter 111."

Numerous authorities, including the National Weather Service and the Texas A&M Forest Service, may issue advisories, watches, or warnings when weather and fuel conditions increase the risk of escaped fires or the severity of wildfires. Public cooperation during the dangerous wildfire conditions is essential to prevent needless wildfires and the losses they may cause.

The Outdoor Burning Rule Explained

The current version of the Outdoor Burning Rule is the result of a concerted effort to produce a streamlined, unambiguous rule that can be applied consistently and fairly throughout Texas. Its purpose is to protect the environment, promote public health and safety, and avoid nuisance conditions through the sensible regulation of outdoor burning.

Summary of the Rule

The Outdoor Burning Rule first prohibits outdoor burning anywhere in Texas, and then allows exceptions for specific situations in which burning is necessary or does not pose a threat to the environment. The rule also prescribes conditions that must be met to protect the environment and avoid other adverse impacts when burning is allowed. If burning seems necessary, but the situation does not fit an exception stated in the rule, then it is possible to request a special authorization to conduct burning from the TCEQ.

How do I obtain a burning permit from the TCEQ?

The TCEQ does not issue burning permits. Outdoor burning in general is prohibited in Texas, although the Outdoor Burning Rule (Appendix C) does allow certain exceptions. If your situation fits all requirements for one of the exceptions described in the rule, you may conduct outdoor burning, as long as you comply with all the conditions. Depending on the circumstances, you may also need authorization from the appropriate regional office before you burn. Remember to check local ordinances or other regulations about burning.

It looks like I can get the TCEQ's authorization to burn, but my neighbors may complain. Do I have to worry about what they think?

Yes. In addition to common courtesy, the Outdoor Burning Rule requires that certain kinds of burning be conducted downwind of, or at least 300 feet from, any structure containing sensitive receptors (for example, a residence, business, barn, or greenhouse; see box, page 8) located on adjacent properties unless written approval is obtained beforehand from the owner or occupant—the one who will suffer adverse effects—of the adjacent or downwind property. Also, the burning must not cause a nuisance or traffic hazard.

The rule authorizes (or the TCEQ has authorized) my outdoor burning. Before I actually set the fire, do I have to notify the TCEQ?

It depends. For certain types of burning, the rule requires you to notify the appropriate TCEQ regional office. For others, you are not required to notify the TCEQ. But, before you strike that match, remember that you may have to contact other agencies—or even your neighbors—as well as the TCEQ. See Appendix A for the notification requirements for the various kinds of burning covered under the rule. Up-to-date information regarding weather conditions can be obtained online through a number of websites. This information should be referenced before conducting outdoor burning in order to determine which way (and how fast) the wind is blowing, whether winds are expected to shift, whether your area is under a temperature inversion, and whether high ozone levels are forecast. Ozone level information is available on TCEQ's Texas Air Quality Forecast page: <www.tceq.texas.gov/goto/airtoday>.

How do I report someone who is illegally burning outdoors?

Report the burning to the local air pollution-control office, or the nearest TCEQ regional office. The TCEQ's Environmental Complaint Hotline is 888-777-3186. Complaints can also be submitted by e-mail at <complaint@tceq.texas.gov> or using the online form available at <www.tceq.texas.gov/complaints>.

Exceptions to the Prohibition

The standard exceptions, explained below, cover the most common situations in which burning is an acceptable practice. In most of these instances, the burning must follow the

general requirements outlined later in this document. It may be necessary to notify the TCEQ, local governmental agencies, and neighbors before conducting burning under one of these exceptions. See Appendix A for details on notification requirements in specific situations. There may be local ordinances or county burn bans that regulate burning; if so, the requirements and restrictions of those ordinances must also be met.

Firefighter Training

Organizations that train firefighters may obtain authorization to conduct outdoor burning for such training, including training in the operation of fire extinguishers. To obtain an authorization, the organization responsible for the training must send a written request to the local air pollution-control agency under contract with the TCEQ, or, if there is no such agency, the appropriate TCEQ regional office. For a list of regional offices, see Appendix B.

If training occurs regularly at a dedicated facility, it may be possible to inform the regional office of all such training events with one annual written notification. If a dedicated training facility conducts training regularly but less often than once a week, a telephone or fax notification will be necessary 24 hours in advance of each event.

Burning conducted to train firefighters does not have to conform to the general requirements for other forms of allowable outdoor burning, but it must not cause a nuisance or traffic hazard. The TCEQ may revoke its authorization if it is used in an attempt to avoid complying with other portions of the Outdoor Burning Rule.

We want to conduct fire training for our volunteer fire department. Can we burn this abandoned house?

The training of firefighters may be authorized as an exception to the prohibition on outdoor burning. Submit a written request on behalf of the VFD to the local air pollution-control agency, or, if there is no local agency, the TCEQ office for your region. The TCEQ may authorize such training orally or in writing; if it denies the request, your VFD will receive a notice of denial within 10 working days after the postmark date or the date of personal delivery of the request to the regional office. To ensure that the fire will not form or disperse toxic substances, the local air pollution-control agency or the reviewing TCEQ regional office may require that the building be stripped of many common construction materials—including electrical wiring, lead flashing, carpet, asbestos, and many others—before the fire is ignited.

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Note that the burning of abandoned buildings by a fire department is not automatically considered fire training. There must be a specific benefit to the fire department. Simply preventing the spread of fire from an abandoned building to neighboring property is not considered training. Such burns constitute an attempt to circumvent the Outdoor Burning Rule and are prohibited.

Fires for Recreation, Ceremonies, Cooking, or Warmth

Outdoor burning is allowed when used solely for recreational or ceremonial purposes, in the noncommercial preparation of food, or exclusively as a means of generating warmth in cold weather. In other words, campfires, bonfires, and cooking fires are allowed. Fires built under this exception may not contain electrical insulation, treated lumber (including paint, stain, varnish, clear coat, or any other kind of treatment), plastics, construction or demolition materials not made of wood, heavy oils, asphaltic materials, potentially explosive materials, chemical wastes, or items containing natural or synthetic rubber. The other general requirements on allowable outdoor burning do not apply to fires covered by this exception, but the burning must not cause a nuisance or traffic hazard.

May I cook food on my charcoal grill in my backyard?

Yes. Fires used in the noncommercial preparation of food are allowed.

May I build a fire in my fireplace?

Yes. Indoor fires are not regulated by the Outdoor Burning Rule. Domestic-use fireplaces are authorized under the TCEQ's de minimis rules in 30 TAC 116.119.

Are campfires allowed inside the city limits?

Fires used solely for recreation or ceremony are allowed by state law; however, local ordinance may prohibit this kind of burning. Make sure no oils, asphalt, synthetic rubber, or other materials that produce heavy smoke are in the fire: they could release toxic gases or cause a nuisance or traffic hazard.

Fires for Disposal or Land Clearing

A broad exception for fires to dispose of waste or clear land covers seven more specific categories, described below. Residents of Montgomery County are subject to special restrictions (see below); these restrictions could be extended

to other areas of the state should growth in neighboring counties render them subject to the provisions of Texas Local Government Code 352.082.

1. Domestic waste. Domestic waste—in other words, household trash or rubbish—may be burned when the local governmental organization with jurisdiction over such matters does not collect trash and does not authorize a business or other service to do so. To qualify for this exception, the waste must come from a property that is designed to be a private residence and used exclusively as a private residence for no more than three families. The waste must also be burned on the property where it was produced. According to TCEQ rules [30 TAC 101.1(26)], domestic wastes include wastes that normally result from the function of life within a residence—for example, kitchen garbage, untreated lumber, cardboard boxes, packaging, clothing, grass, leaves, and branch trimmings. Such items as tires, construction debris, furniture, carpet, electrical wire, and appliances are not considered to be domestic waste and cannot be burned. Other conditions of the general requirements for outdoor burning do not apply to the burning of domestic waste, but the outdoor burn must not cause a nuisance or traffic hazard.

2. Diseased animal carcasses. These may be burned when burning is the most effective means of controlling the spread of disease. The general requirements for outdoor burning do not apply to this exception, but burning under this exception must not cause a nuisance or traffic hazard.

3. Burning of animal remains by a veterinarian. A veterinarian may burn animal remains and medical waste—not including sharps (e.g., needles)—associated with animals in his or her care on his or her property if the property is located outside the corporate boundaries of a municipality (or within such boundaries if annexed on or after September 1, 2003). This section prevails over any other law that authorizes a governmental authority to abate a public nuisance. (Texas Occupations Code 801.361.)

4. On-site burning of waste plant growth. Trees, brush, grass, leaves, branch trimmings, or other plant growth may be burned on the property on which the material grew in most attainment counties, as described below. In all cases, the plant growth must be burned by the property owner or any other person authorized by the owner.

- *All designated nonattainment counties and some attainment counties.* Burning of waste plant growth is allowed only if the material was generated as a result of right-of-way maintenance, land clearing, or maintenance along water canals, and no practical alternative to burning exists. "Practical alternative" is defined as 'an economically, technologically, ecologically, and logistically viable

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option.⁹ See Appendix D. Burning carried out under this exception must conform to all the general requirements for outdoor burning.

- **Most attainment counties.** Burning of waste plant growth is allowed regardless of the activity that generated the material. Practical alternatives need not be considered. Burning carried out under this exception must conform to some of the general requirements for outdoor burning, specifically the requirements in 30 TAC 111.219(3, 4, 6, 7) (see Appendix C). Such burning is also subject to local ordinances that prohibit burning within the corporate limits of a city or town. Some attainment counties are treated as nonattainment counties for the purposes of this exception. Specifically, any attainment county that contains any part of a municipality that extends into a bordering nonattainment county is treated as a nonattainment county for the purposes of this exception.

To determine if your county is an attainment or a nonattainment county for the purposes of this exception, call your regional TCEQ office. TCEQ regional-office phone numbers appear in Appendix B.

5. Designated burn sites. This exception allows rural homeowners to transport their yard waste to a designated site for consolidated burning, rather than having numerous smaller fires in the yards of rural neighborhoods. All burning at a designated site must be directly supervised by a fire-department employee. Designated burn sites must be located outside the corporate limits of a municipality and within a county that has a population of less than 50,000. The site must be designated by its owner; designation does not require registration with the agency. A site is designated by:

- posting all entrances to the site with a placard measuring at least 2 feet wide by 4 feet high bearing specific information as stated in 30 TAC 111.209(5)(A) (see Appendix C)—each placard must be clearly visible and legible at all times; and
- specifying residential properties for which the site has been designated, and maintaining a record of those specific residential properties. The record must contain a description of a platted subdivision, a list of all specific residential addresses, or both. This record must be made available within 48 hours of any request by any authority having jurisdiction.

Furthermore, the owner of the site is required to ensure that all activities at the site comply with this exception. The owner must:

- ensure that all waste burned at the site consists of trees, brush, grass, leaves, branch trimmings, or other plant

growth, and was generated at one of the specific residential properties for which the site is designated; and

- ensure that all burning at the site is directly supervised by a paid, on-duty fire department employee who is part of the fire protection personnel and is acting in the scope of his or her employment. The fire-department employee must notify the appropriate TCEQ regional office by phone or fax 24 hours in advance of each burn. The TCEQ will supply the employee with information on practical alternatives to burning.

6. Crop residues. When there is no practical alternative, crop residues may be burned as part of agricultural management. Burning carried out under this exception must conform to the general requirements for outdoor burning, and structures containing “sensitive receptors” (see box) must not be negatively affected by the burn. This exception does not apply to crop-residue burning covered by an administrative order.

“Sensitive receptors” include humans and livestock, as well as “sensitive live vegetation” such as nursery plants, mushrooms under cultivation, and plants raised for pharmaceutical production or used in lab experiments. For a complete definition, see 30 TAC 111.203(7) (see Appendix C).

7. Brush, trees, etc., off-site. A county or municipal government may request site and burn authorization in writing from the appropriate TCEQ regional office to burn accumulations of brush, trees, and other plant growth that cause a condition detrimental to public health and safety. The burn must occur at a site owned by the local government and will be authorized only if the TCEQ determines that there is no practical alternative. The frequency of such burns may not exceed once every two months, and they cannot be used in place of other sound brush-management practices. Burning conducted under this exception must conform to the general requirements for allowable outdoor burning. The burning may not occur at a municipal landfill without advance permission from the TCEQ.

Special restrictions in Montgomery County. Regardless of the seven exceptions given above, in unincorporated areas of Montgomery County it is a criminal offense, as well as a violation of agency rules, to burn household refuse on a lot smaller than five acres or located in a “neighborhood.” The terms “neighborhood” and “refuse” are defined in 30 TAC 111.203 (see Appendix C). Under Texas Local Government Code 352.082, this restriction could in the future also apply to certain planned communities if a county adjacent to the

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one where such a community is located grows to 3.3 million or more in population.

I live in a small rural town where most people have their trash picked up by a commercial trash-collection service. I can't afford to pay that money each month. May I burn my trash in a 55-gallon drum in my backyard?

If there is no governmentally provided or authorized trash-collection service available to you, you may burn domestic waste on the property where it is produced, as long as outdoor burning is not prohibited by local rule or ordinance and does not create a nuisance or a traffic hazard.

May I burn my old oil filters in a metal barrel on my property?

No. Take oil filters to an authorized recycling site, along with your used oil. You may call 800-CLEAN-UP for more information on recycling.

I want to burn boxes from my business. The TCEQ rules say that I may burn waste from my residence, but what about waste from my business?

According to the Outdoor Burning Rule, you can't burn business waste. The exception that allows the burning of domestic waste applies only if the property is used exclusively as a private residence and the local governmental authority does not provide or authorize the collection of waste at the premises where the waste is generated. There is no such exception for businesses. You should look into the possibility of recycling your boxes and other business or commercial wastes such as pallets, cardboard, barrels, etc. or find ways that you or others could reuse them.

We have a hard time disposing of scrap tires. Will the TCEQ let us burn them?

No. The rule provides no exception for the disposal of tires through outdoor burning—or any other items that contain natural or synthetic rubber—because of the air pollution that would result. The TCEQ's Scrap Tire Program (512-239-2515, <www.tceq.texas.gov/tires>) can give you more information regarding proper methods for tire disposal.

What may be burned at municipal landfills?

Routine burning is not allowed at municipal landfills.

I am a licensed veterinarian. Do I need authorization to burn animals that died while in my care?

Not if you are located outside the corporate boundaries of a municipality (or within those boundaries if annexed on or after September 1, 2003) and you burn the animal remains on property owned by you. You can also burn medical waste associated with the animal, with the exception of sharps (e.g., needles). For details, see section 801.361 of the Texas Occupations Code.

May I burn trees that I have cut down in my backyard?

There are a couple of exceptions to the prohibition on outdoor burning that may allow you to burn trees.

First, grass, leaves, and branch trimmings from residences are all considered "domestic waste." If your local government does not collect domestic waste and does not authorize a private collector to do so, you may burn material of this type. If such waste collection is available, then it cannot be burned under the domestic-waste exception.

Regardless of whether domestic-waste pickup is available, a separate exception may apply depending on your location. If you are in a county that does not contain any part of a city that extends into a nonattainment county, you may burn plant waste (not all domestic waste) on the property on which it was generated. For information regarding nonattainment counties visit <www.tceq.texas.gov/airquality/sip>.

However, under both of these exceptions, the burning must not create a nuisance or traffic hazard, and you must comply with all applicable local rules or ordinances.

I have some uncleared property inside the city limits that I would like to develop. Hauling the trees and brush off would not be practical because it is too expensive. May I dispose of the trees and brush by burning?

It depends on the attainment status of the county in which you wish to burn. In designated nonattainment counties, and attainment counties that border nonattainment counties and contain any part of a city that extends into the nonattainment county, this type of burning does not meet the exception unless the municipal government has enacted ordinances that permit burning consistent with state law. You must consider alternatives such as chipping or trench burning. If there is no practical alternative, and the city has not enacted ordinances that permit burning, you may request

written permission from the TCEQ for authorization to burn, and you cannot commence with the burning until you receive such authorization. Such requests are evaluated on a case-by-case basis. Contact the appropriate TCEQ regional office for guidance.

In all other counties this burning meets the agency exception unless the municipal government has enacted ordinances that prohibit burning.

For information regarding nonattainment counties visit <www.tceq.texas.gov/airquality/sip>.

I am in the business of trimming people's trees and shrubs in town. I realize that the tree limbs and trimmings can't be burned in town, but I own some land outside of town. May I take it out there and burn it?

No. The Outdoor Burning Rule allows the burning of land clearing materials only at the site of the land clearing.

Why are sugar growers allowed to burn their cane fields?

At the request of Rio Grande Valley Sugar Growers, Inc., the TCEQ conducted extended air-monitoring studies of the Texas sugarcane-growing area. The agency determined that no practical alternative to burning exists for this industry. The TCEQ then adopted an agreed order with the Rio Grande Valley Sugar Growers, Inc., that outlines conditions under which the sugarcane industry can conduct burning.

The burning of corn stubble produces a great amount of smoke. Is this type of burning authorized?

Yes. Burning for crop management is allowed if there is no practical alternative, if it is conducted under appropriate weather conditions and at appropriate times, and if it does not cause a nuisance or traffic hazard.

There are tree limbs in an area of our community that pose a public safety risk. What are our options for solving this problem?

Brush, trees, and other forms of plant growth that present a detriment to public health and safety may be burned by a county or municipal government at a site it owns upon receiving site and burn authorization from the TCEQ. Such burning can only be authorized when there is no practical alternative, and it may be done no more than once every two months. The local government has the burden of proving

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that there is no practical alternative and that the growth poses a detriment to public health or safety. Burning to augment normal brush disposal cannot be a continual or a standard operating procedure and cannot be conducted at municipal landfills unless authorized in writing by the TCEQ.

Is hay that has been used as bedding for animals considered crop residue?

No. Hay used for this purpose will need to be properly disposed of by a method other than burning. Check with your local county officials or agricultural organizations. They may need this material for erosion control or other purposes.

Prescribed Burns

This exception covers the use of fire to manage forests, rangeland, wildland and wildlife, coastal salt marsh in 14 counties, and for wildfire-hazard mitigation. All of these forms of burning are subject to the general requirements for allowable outdoor burning. Coastal salt-marsh burning also entails more specific notification requirements, which are stated in 30 TAC 111.211(2)(A) and (B).

Who can I contact for technical information relating to prescribed burning?

A good source is the Prescribed Burning Board of the Texas Department of Agriculture, which sets standards for prescribed burning; develops a comprehensive training curriculum for prescribed-burn managers and sets standards for their certification, recertification and training; establishes minimum education and professional requirements for instructors for the approved curriculum; and sets minimum insurance requirements for prescribed-burn managers.

For safety reasons, a prescribed-burn plan may call for burning at night. Such a plan requires special authorization and must consider the effects of a temperature inversion on smoke dispersal in order to protect public health.

Pipeline Breaks and Oil Spills

An oil (or other hydrocarbon) spill or pipeline break may trigger a requirement to notify the appropriate TCEQ regional office. Once notified of the spill, the regional office staff will decide whether burning is necessary to protect the public welfare. If the TCEQ gives the company or person responsible for the spill permission to burn, the TCEQ may also require that company or person to take samples and monitor the site to determine and evaluate environmental impacts.

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Other Situations

If a situation may require outdoor burning but is not covered by the previously described exceptions, you may request permission to burn from the TCEQ regional office. Its staff, acting on behalf of the executive director, will consider whether there is a practical alternative, whether the burning will cause or contribute to a nuisance or traffic hazard, and whether the practice will violate any federal or state primary or secondary standard for ambient air quality. Such an authorization may require you to follow certain procedures to control or abate emissions. The authorization may be revoked at any time if the TCEQ determines that the outdoor burning is creating a nuisance, violating any provision of an applicable permit, causing a violation of any air quality standard, or not conforming to the conditions specified in the authorization.

A bad storm knocked a lot of trees down in our community. May we burn the debris? May we haul it to the landfill and burn it?

Regardless of whether the brush is to be burned on-site or at the landfill, this type of burning is not specifically authorized in the exceptions to the prohibition on outdoor burning. However, the TCEQ may authorize the disposal of storm debris if there are no practical alternatives. Such requests are evaluated on a case-by-case basis. Contact the appropriate TCEQ regional office for guidance.

Why are housing subdivisions allowed to dig pits and burn their land-clearing materials within city limits?

They are using a process called air-curtain incineration (trench burning), which is authorized under a permit by rule or standard permit. Companies that specialize in that business must obtain prior TCEQ approval, obtain a federal operating permit, and follow specific written operating procedures.

General Requirements for Outdoor Burning

- If a proposed outdoor burn meets the conditions for an exception to the general prohibition of outdoor burning, additional requirements designed to protect public health, safety, and the environment may apply. They are designed to reduce the likelihood that the burning will create a nuisance, cause a hazard, or harm the environment. The specific requirements applicable to each type of allowable outdoor burn are identified in the exceptions (see Appendix C). The party responsible for the burn remains liable for damages, injuries, or other consequences that may result from burning, even when it is carried out in compliance with these regulations.
- Notify the Texas A&M Forest Service before carrying out any prescribed or controlled burns that are intended for forest management.
- Burn only outside the corporate limits of a city or town, unless the incorporated city or town has an ordinance, consistent with the Texas Clean Air Act, Subchapter E, that permits burning.
- Commence or continue burning only when the wind direction and other weather conditions are such that the smoke and other pollutants will not present a hazard to any public road, landing strip, or navigable water (e.g., lake, river, stream, or bay) or have an adverse effect on any off-site structure containing "sensitive receptors" (e.g., a residence, business, farm building, or greenhouse; see box, page 8). Up to date information regarding weather conditions can be obtained online through a number of websites. This information should be referenced before conducting outdoor burning in order to determine the direction and speed of the wind, whether winds are expected to shift, whether your area is under a temperature inversion, and whether high ozone levels are forecast. Ozone level information is available on the TCEQ's Texas Air Quality Forecast page: <www.tceq.texas.gov/goto/airtoday>.
- Post someone to flag traffic if at any time the burning causes or may tend to cause smoke to blow onto or across a road or highway.
- Keep fires downwind of, or at least 300 feet away from, any neighboring structure that contains sensitive receptors. This requirement may be waived only with the prior written approval of whoever owns or rents the adjacent property and either resides or conducts business there.
- Begin burning no earlier than one hour after sunrise. Cease burning the same day no later than one hour before sunset, and make sure that a responsible party is present while the burn is active and the fire is progressing. At the end of the burn, extinguish isolated residual fires or smoldering objects if the smoke they produce can be a nuisance or a traffic hazard. Do not start burning unless weather conditions are such that the smoke will dissipate (winds of at least 6 miles per hour; no temperature inversions) while still allowing the fire to be contained and controlled (winds no faster than 23 miles per hour).

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- Do not burn any electrical insulation, treated lumber, plastics, non-wooden construction or demolition materials, heavy oils, asphaltic materials, potentially explosive materials, chemical wastes, or items that contain natural or synthetic rubber.

My situation doesn't fit any of the exceptions given in the rule, but I still think that burning is the only practical alternative. What can I do?

Submit a written request to the TCEQ regional office that serves the county where you wish to conduct outdoor burning. Acting on behalf of the executive director, regional personnel will review your request and determine whether a practical alternative is available. If they agree that none can be found, they will issue you a written authorization to burn that outlines specific conditions you must follow to control the emissions.

We are burning in compliance with TCEQ regulations, but the local fire marshal objects. Is our compliance with state rules not enough?

Your compliance with TCEQ regulations does not mean that other, stricter laws, regulations, or ordinances cannot be enforced by cities, counties, or other jurisdictions. You must comply with all such regulations (e.g., county burn bans) as well as the TCEQ rules.

Practical Alternatives to Burning

The Outdoor Burning Rule defines a practical alternative as “an economically, technologically, ecologically, and logistically viable option.” The following methods can sometimes serve as practical alternatives to burning as a means to dispose of waste. With creative thinking and the help of the local TCEQ regional office, you may be able to develop ways to dispose of your waste other than burning it.

Recycling. Manually or mechanically separate salvageable metals from other material and sell them at a salvage yard.

Composting. Wastes from landscape maintenance can often be composted on-site easily and cleanly. Similar wastes—even paper, in some instances—can be composted under the right conditions.

Mechanical chipping or mulching. The mulch that is produced could be put to use for soil enrichment and moisture retention, or used to create compost. In some cases, the mulch could become a marketable product, be put to use where it is produced, or be given to individuals or nurseries. If the material cannot be used as a landscape mulch, chipping can still be useful to reduce the volume of waste that must be disposed of by some other means.

Logging. Timber sometimes can be converted to a marketable product—lumber, pulp, or firewood—as one way to reduce the costs of disposal. The remaining small limbs and brush are then much easier to dispose of through one of the other alternatives.

Landfills. Some landfills have recycling centers, with chippers for wood waste and collection bins for paper, plastic, and glass. Type IV landfills accept brush. Contact your local landfills for details.

Air-curtain incineration (trench burning). Many land-clearing contractors have portable devices, known as *trench burners* or *air-curtain incinerators*, that can be used to dispose of brush or untreated lumber with minimal emissions. These devices must be authorized by the TCEQ prior to their construction at a burn site and the contractor must have obtained a federal operating permit. Many contractors and distributors lease out these devices.

Related TCEQ Publications

The TCEQ has a variety of publications available on issues related to outdoor burning. Several of them explain, in detail, specific alternatives to outdoor burning, for example:

- RG-325: *Used Oil Recycling Handbook: Guidance for Used Oil Handlers*
- GI-036: *Mulching and Composting*
- RG-419: *Disposal of Domestic or Exotic Livestock Carcasses*

To order single copies of these or other TCEQ publications, call TCEQ Publications Distribution at 512-239-0028 or write:

TCEQ Publications, MC 118
P.O. Box 13087
Austin, TX 78711-3087

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Appendix A: Outdoor Burning—When Should You Notify the TCEQ?

Purpose of Burning	Notify the TCEQ	Who Else to Notify	Rule Section
Fire Training			
Statewide	In writing, 10 working days prior	1	111.205(a)
Dedicated facility, used at least once per week	Every year	1	111.205(b)
Dedicated facility, used less frequently	In writing every year, and by phone or fax 24 hours before event	1	111.205(c)
Disposal			
Domestic waste	Not required	2	111.209(1)
Diseased animal carcasses	Not required	2	111.209(2)
Animal remains and associated medical waste	Not required	2	111.209(3)
Plant growth on-site	Not required	2, 4	111.209(4)
Plant growth at designated burn site	Verbally or in writing, by fire department employee; must be 24 hours before event	2, 4	111.209(5)
Crop residue	Verbally or in writing, when possible	2, 4	111.209(6)
Brush, off-site, by county or city	In writing; also notify verbally when possible	2, 4	111.209(7)
Prescribed burns			
Other than coastal salt marsh	Verbally or in writing, when possible	2, 3, 4	111.211(1)
Coastal salt marsh	15 working days prior, in writing; verbal notification also required	4	111.211(2)(A)
Other			
Oil spills	Spill notification and prior approval, in writing; verbal notification also required	2	111.213
Ceremonial fires	Not required	2	111.207

Note: This table shows notification requirements only. See also the general requirements for allowable burning given later in this document. In instances where a general requirement does not apply, it may be included as part of a required TCEQ authorization.

1. If there is a local air pollution–control agency, notify that agency.
2. Check local ordinances, and notify any other government having jurisdiction over the area—for example, the county fire marshal, local fire department, or local law-enforcement officials.
3. Notify the Texas Forest Service before conducting prescribed burns for forest management.
4. Before conducting the burn, determine whether any structures containing sensitive receptors (for example, residences, greenhouses, stables, etc.) are within 300 feet of, and in the general direction downwind from, the site of the burn. If so, obtain written permission from the occupants or operators of those structures before you begin the burn.

Appendix B: TCEQ Areas and Regional Offices

TCEQ AREA OFFICES

BORDER AND PERMIAN BASIN

*Region 6, El Paso • Region 7, Midland
Region 15, Harlingen • Region 16, Laredo*

1804 W. Jefferson Ave. • Harlingen, TX 78550-5247
956-425-6010 • FAX: 956-412-5059

CENTRAL TEXAS

*Region 9, Waco • Region 11, Austin
Region 13, San Antonio*

P.O. Box 13087 • Austin, TX 78711-3087
12100 Park 35 Circle • Austin, TX 78753
512-239-6731 • FAX: 512-239-4390

COASTAL AND EAST TEXAS

*Region 5, Tyler • Region 10, Beaumont
Region 12, Houston • Region 14, Corpus Christi*

P.O. Box 13087 • Austin, TX 78711-3087
12100 Park 35 Circle • Austin, TX 78753
512-239-3607 • FAX: 512-239-4390

NORTH CENTRAL AND WEST TEXAS

*Region 1, Amarillo • Region 2, Lubbock • Region 3, Abilene
Region 4, Dallas/Fort Worth • Region 8, San Angelo*

5012 50th St., Ste. 100 • Lubbock, TX 79414-3426
806-796-7092 • FAX: 806-796-7107

TCEQ REGIONAL AND WATERMASTER OFFICES

1 – AMARILLO

3918 Canyon Dr.
Amarillo, TX 79109-4933
806-353-9251 • FAX: 806-358-9545

2 – LUBBOCK

5012 50th St., Ste. 100
Lubbock, TX 79414-3426
806-796-7092 • FAX: 806-796-7107

3 – ABILENE

1977 Industrial Blvd.
Abilene, TX 79602-7833
325-698-9674 • FAX: 325-692-5869

4 – DALLAS/FORT WORTH

2309 Gravel Dr.
Fort Worth, TX 76118-6951
817-588-5800 • FAX: 817-588-5700

Stephenville Office

(Concentrated Animal Feeding Operations)
580 W. Lingleville Rd., Ste. D
Stephenville, TX 76401-2209
254-965-9200 or 800-687-7078

5 – TYLER

2916 Teague Dr.
Tyler, TX 75701-3734
903-535-5100 • FAX: 903-595-1562

6 – EL PASO

401 E. Franklin Ave., Ste. 560
El Paso, TX 79901-1212
915-834-4949 • FAX: 915-834-4940

7 – MIDLAND

9900 W. IH-20, Ste. 100
Midland, TX 79706
432-570-1359 • FAX: 432-561-5512

8 – SAN ANGELO

622 S. Oakes, Ste. K
San Angelo, TX 76903-7035
325-655-9479 • FAX: 325-658-5431

9 – WACO

6801 Sanger Ave., Ste. 2500
Waco, TX 76710-7826
254-751-0335 • FAX: 254-772-9241

10 – BEAUMONT

3870 Eastex Fwy.
Beaumont, TX 77703-1830
409-898-3838 • FAX: 409-892-2119

11 – AUSTIN

P.O. Box 13087 • Austin, TX 78711-3087
12100 Park 35 Circle • Austin, TX 78753
512-339-2929 • FAX: 512-339-3795

12 – HOUSTON

5425 Polk St., Ste. H
Houston, TX 77023-1452
713-767-3500 • FAX: 713-767-3520

13 – SAN ANTONIO

14250 Judson Rd.
San Antonio, TX 78233-4480
210-490-3096 • FAX: 210-545-4329

14 – CORPUS CHRISTI

NRC Bldg., Ste. 1200,
6300 Ocean Dr., Unit 5839
Corpus Christi, TX 78412-5839
361-825-3100 • FAX: 361-825-3101

15 – HARLINGEN

1804 W. Jefferson Ave.
Harlingen, TX 78550-5247
956-425-6010 • FAX: 956-412-5059

16 – LAREDO

707 E. Calton Rd., Ste. 304
Laredo, TX 78041-3887
956-791-6611 • FAX: 956-791-6716

TEXAS WATERMASTERS

Brazos Watermaster
6801 Sanger Ave., Ste. 2500
Waco, TX 76710-7826
254-751-0335 • FAX: 254-772-9241

Concho Watermaster

622 S. Oakes, Ste. K
San Angelo, TX 76903-7035
325-481-8069 or 866-314-4894
FAX: 325-658-5431

Rio Grande Watermaster

Eagle Pass Office
P.O. Box 1185
Eagle Pass, TX 78853-1185

1152 Ferry St., Ste. E & F
Eagle Pass, TX 78852-4367
830-773-5059 • 800-609-1219
FAX: 830-773-4103

Harlingen Office

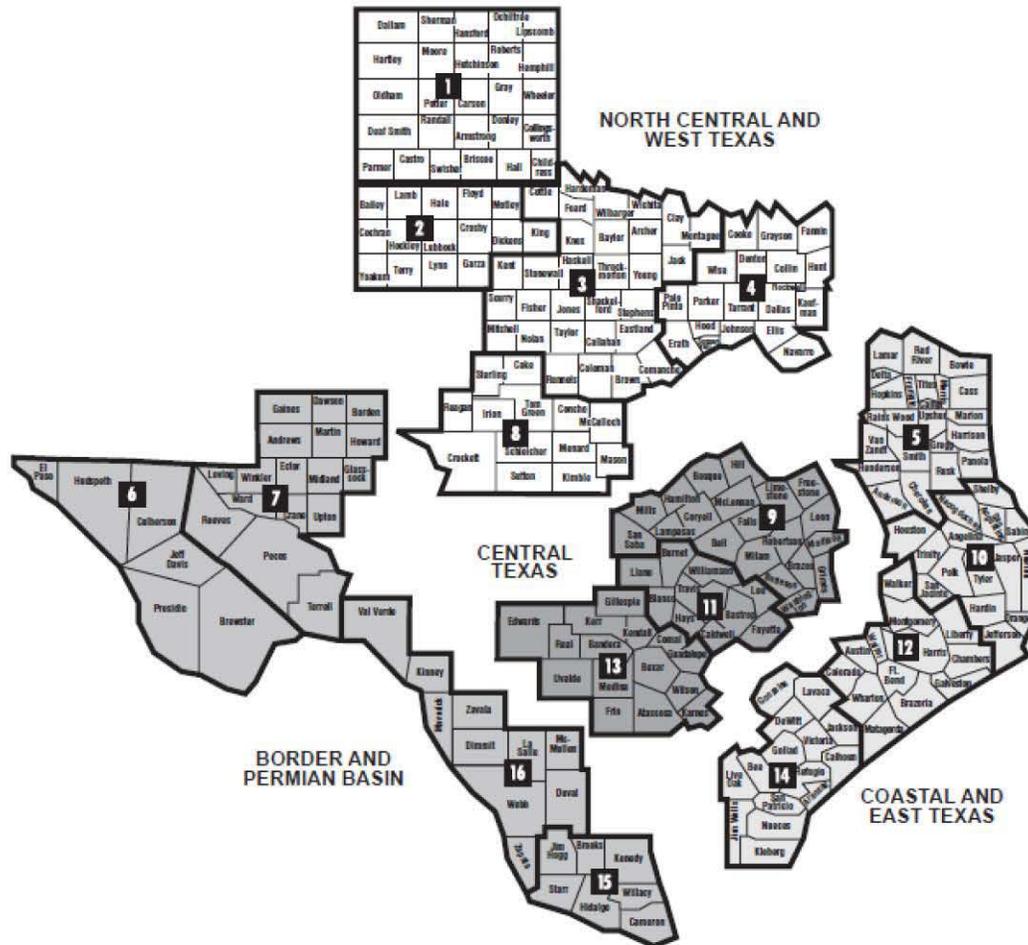
1804 W. Jefferson Ave.
Harlingen, TX 78550-5247
956-430-6056 or 800-609-1219
FAX: 956-430-6052

South Texas Watermaster

14250 Judson Rd.
San Antonio, TX 78233-4480
210-490-3096 or 800-733-2733
FAX: 210-545-4329

OUTDOOR BURNING IN TEXAS

TCEQ Areas and Regional Offices *(continued)*



TCEQ REGIONS

- | | | | |
|----------------------------|---------------------|--------------------|--------------------------|
| 1 AMARILLO | 5 TYLER | 9 WACO | 13 SAN ANTONIO |
| 2 LUBBOCK | 6 EL PASO | 10 BEAUMONT | 14 CORPUS CHRISTI |
| 3 ABILENE | 7 MIDLAND | 11 AUSTIN | 15 HARLINGEN |
| 4 DALLAS/FORT WORTH | 8 SAN ANGELO | 12 HOUSTON | 16 LAREDO |

Appendix C: Outdoor Burning Rule

The Outdoor Burning Rule is reproduced below from 30 TAC 111.201–221. A current copy of the rule can be obtained from the TCEQ by calling 512-239-0028, or at <www.tceq.texas.gov/rules>.

§111.201. General Prohibition.

No person may cause, suffer, allow, or permit any outdoor burning within the State of Texas, except as provided by this subchapter or by orders or permits of the commission. Outdoor disposal or deposition of any material capable of igniting spontaneously, with the exception of the storage of solid fossil fuels, shall not be allowed without written permission of the executive director. The term “executive director,” as defined in Chapter 3 of this title (relating to Definitions), includes authorized staff representatives.

§111.203. Definitions.

Unless specifically defined in the Texas Clean Air Act (TCAA) or in the rules of the Texas Commission on Environmental Quality (commission), the terms used by the commission have the meanings commonly ascribed to them in the field of air pollution control. In addition to the terms that are defined by the TCAA, the following terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise.

- (1) **Extinguished**—The absence of any visible flames, glowing coals, or smoke.
- (2) **Landclearing operation**—The uprooting, cutting, or clearing of vegetation in connection with conversion for the construction of buildings, rights-of-way, residential, commercial, or industrial development, or the clearing of vegetation to enhance property value, access, or production. It does not include the maintenance burning of on-site property wastes such as fallen limbs, branches, or leaves, or other wastes from routine property clean-up activities, nor does it include burning following clearing for ecological restoration.
- (3) **Neighborhood**—A platted subdivision or property contiguous to and within 300 feet of a platted subdivision.
- (4) **Practical alternative**—An economically, technologically, ecologically, and logistically viable option.

- (5) **Prescribed burn**—The controlled application of fire to naturally occurring vegetative fuels under specified environmental conditions and confined to a predetermined area, following appropriate planning and precautionary measures.
- (6) **Refuse**—Garbage, rubbish, paper, and other decayable and nondecayable waste, including vegetable matter and animal and fish carcasses.
- (7) **Structure containing sensitive receptor(s)**—A man-made structure utilized for human residence or business, the containment of livestock, or the housing of sensitive live vegetation. The term “man-made structure” does not include such things as range fences, roads, bridges, hunting blinds, or facilities used solely for the storage of hay or other livestock feeds. The term “sensitive live vegetation” is defined as vegetation that has potential to be damaged by smoke and heat, examples of which include, but are not limited to, nursery production, mushroom cultivation, pharmaceutical plant production, or laboratory experiments involving plants.
- (8) **Sunrise/Sunset**—Official sunrise/sunset as set forth in the United States Naval Observatory tables available from National Weather Service offices.
- (9) **Wildland**—Uncultivated land other than fallow, land minimally influenced by human activity, and land maintained for biodiversity, wildlife forage production, protective plant cover, or wildlife habitat.

§111.205. Exception for Fire Training.

- (A) Outdoor burning shall be authorized for training firefighting personnel when requested in writing and when authorized either verbally or in writing by the local air pollution control agency. In the absence of such local entities, the appropriate commission regional office shall be notified. The burning shall be authorized if notice of denial from the local air pollution control agency, or commission regional office is not received within 10 working days after the date of postmark or the date of personal delivery of the request.
- (B) Facilities dedicated solely for firefighting training, at which training routinely will be conducted on a

OUTDOOR BURNING IN TEXAS

frequency of at least once per week, shall submit an annual written notification of intent to continue such training to the appropriate commission regional office and any local air pollution control agency.

- (C) Facilities dedicated solely for firefighting training, at which training is conducted less than weekly, shall provide an annual written notification of intent, with a telephone or electronic facsimile notice 24 hours in advance of any scheduled training session. No more than one such notification is required for multiple training sessions scheduled within any one-week period, provided the initial telephone/facsimile notice includes all such sessions. Both the written and telephone notifications shall be submitted to the appropriate commission regional office and any local air pollution control agency.
- (D) Authorization to conduct outdoor burning under this provision may be revoked by the executive director if the authorization is used to circumvent other prohibitions of this subchapter.

§111.207. Exception for Fires Used for Recreation, Ceremony, Cooking, and Warmth.

Outdoor burning shall be authorized for fires used solely for recreational or ceremonial purposes, or in the noncommercial preparation of food, or used exclusively for the purpose of supplying warmth during cold weather. Such burning shall be subject to the requirements of §111.219(7) of this title (relating to General Requirements for Allowable Outdoor Burning).

§111.209. Exception for Disposal Fires.

Except as provided in Local Government Code, §352.082, outdoor burning is authorized for the following:

- (1) domestic waste burning at a property designed for and used exclusively as a private residence, housing not more than three families, when collection of domestic waste is not provided or authorized by the local governmental entity having jurisdiction, and when the waste is generated only from that property. Provision of waste collection refers to collection at the premises where the waste is generated. The term "domestic waste" is defined in §101.1 of this title (relating to Definitions). Wastes normally resulting from the function of life within a residence that can be burned include such things as kitchen garbage, untreated lumber, cardboard boxes, packaging (including plastics and rubber), clothing, grass, leaves, and branch trimmings. Examples of wastes not considered domestic waste that cannot be burned, include such things as tires, non-wood construction debris, furniture, carpet, electrical wire, and appliances;
- (2) diseased animal carcass burning when burning is the most effective means of controlling the spread of disease;
- (3) veterinarians in accordance with Texas Occupations Code, §801.361, Disposal of Animal Remains;
- (4) on-site burning of trees, brush, grass, leaves, branch trimmings, or other plant growth, by the owner of the property or any other person authorized by the owner, and when the material is generated only from that property:
- (A) in a county that is part of a designated nonattainment area or that contains any part of a municipality that extends into a designated nonattainment area; if the plant growth was generated as a result of right-of-way maintenance, landclearing operations, and maintenance along water canals when no practical alternative to burning exists. Such burning is subject to the requirements of §111.219 of this title (relating to General Requirements for Allowable Outdoor Burning). Commission notification or approval is not required; or
- (B) in a county that is not part of a designated nonattainment area and that does not contain any part of a municipality that extends into a designated nonattainment area; this provision includes, but is not limited to, the burning of plant growth generated as a result of right-of-way maintenance, landclearing operations, and maintenance along water canals. Such burning is subject to local ordinances that prohibit burning inside the corporate limits of a city or town and that are consistent with the Texas Clean Air Act, Chapter 382, Subchapter E, Authority of Local Governments, and the requirements of §111.219(3), (4), (6), and (7) of this title. Commission notification or approval is not required.
- (5) at a site designated for consolidated burning of waste generated from specific residential properties. A designated site must be located outside of a municipality and within a county with a population of less than 50,000. The owner of the designated site or the owner's authorized agent shall:
- (A) post at all entrances to the site a placard measuring a minimum of 48 inches in width and 24 inches in height and containing, at a minimum, the words "DESIGNATED BURN SITE - No burning of

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any material is allowed except for trees, brush, grass, leaves, branch trimmings, or other plant growth generated from specific residential properties for which this site is designated. All burning must be supervised by a fire department employee. For more information call (PHONE NUMBER OF OWNER OR AUTHORIZED AGENT).” The placard(s) must be clearly visible and legible at all times;

- (B) designate specific residential properties for consolidated burning at the designated site;
- (C) maintain a record of the designated residential properties. The record must contain the description of a platted subdivision and/or a list of each property address. The description must be made available to commission or local air pollution control agency staff within 48 hours, if requested;
- (D) ensure that all waste burned at the designated site consists of trees, brush, grass, leaves, branch trimmings, or other plant growth;
- (E) ensure that all such waste was generated at specific residential properties for which the site is designated; and
- (F) ensure that all burning at the designated site is directly supervised by an employee of a fire department who is part of the fire protection personnel, as defined by Texas Government Code, §419.021, and is acting in the scope of the person’s employment. The fire department employee shall notify the appropriate commission regional office with a telephone or electronic facsimile notice 24 hours in advance of any scheduled supervised burn. The commission shall provide the employee with information on practical alternatives to burning. Commission approval is not required;
- (6) crop residue burning for agricultural management purposes when no practical alternative exists. Such burning shall be subject to the requirements of §111.219 of this title and structures containing sensitive receptors must not be negatively affected by the burn. When possible, notification of the intent to burn should be made to the appropriate commission regional office prior to the proposed burn. Commission notification or approval is not required. This section is not applicable to crop residue burning covered by an administrative order; and
- (7) brush, trees, and other plant growth causing a detrimental public health and safety condition burned by a county or municipal government at a site it owns upon

receiving site and burn approval from the executive director. Such a burn can only be authorized when there is no practical alternative, and it may be done no more frequently than once every two months. Such burns cannot be conducted at municipal landfills unless authorized under §111.215 of this title (relating to Executive Director Approval of Otherwise Prohibited Outdoor Burning), and shall be subject to the requirements of §111.219 of this title.

§111.211. Exception for Prescribed Burn.

Outdoor burning shall be authorized for:

- (1) Prescribed burning for forest, range and wildland/wildlife management, and wildfire hazard mitigation purposes, with the exception of coastal salt-marsh management burning. Such burning shall be subject to the requirements of §111.219 of this title (relating to General Requirements for Allowable Outdoor Burning), and structures containing sensitive receptors must not be negatively affected by the burn. When possible, notification of intent to burn should be made to the appropriate commission regional office prior to the proposed burn. Commission notification or approval is not required.
- (2) Coastal salt-marsh management burning conducted in Aransas, Brazoria, Calhoun, Chambers, Galveston, Harris, Jackson, Jefferson, Kleberg, Matagorda, Nueces, Orange, Refugio, and San Patricio Counties. Coastal salt-marsh burning in these counties shall be subject to the following requirements:
 - (A) All land on which burning is to be conducted shall be registered with the appropriate commission regional office using a United States Geological Survey map or equivalent upon which are identified significant points such as roads, canals, lakes, and streams, and the method by which access is made to the site. For large acreage, the map should be divided into manageable blocks with identification for each defined block. The information must be received for review at least 15 working days before the burning takes place.
 - (B) Prior to any burning, notification, either verbal or written, must be made to, and authorization must be received from the appropriate commission regional office. Notification must identify the specific area and/or block to be burned, approximate start and end time, and a responsible party who can be contacted during the burn period.

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(C) Such burning shall be subject to the requirements of §111.219 of this title.

§111.213. Exception for Hydrocarbon Burning.

Outdoor burning shall be authorized for hydrocarbon burning from pipeline breaks and oil spills only upon proper notification as set forth in §101.6 of this title (relating to Notification Requirements for Major Upset), and if the executive director has determined that the burning is necessary to protect the public welfare. Sampling and monitoring may be required to determine and evaluate environmental impacts.

§111.215. Executive Director Approval of Otherwise Prohibited Outdoor Burning.

If not otherwise authorized by this chapter, outdoor burning may be authorized by written permission from the executive director if there is no practical alternative and if the burning will not cause or contribute to a nuisance, traffic hazard or to a violation of any federal or state primary or secondary ambient air standard. The executive director may specify procedures or methods to control or abate emissions from outdoor burning authorized pursuant to this rule. Authorization to burn may be revoked by the executive director at any time if the burning causes nuisance conditions, is not conducted in accordance with the specified conditions, violates any provision of an applicable permit, or causes a violation of any air quality standard.

§111.219. General Requirements for Allowable Outdoor Burning.

Outdoor burning which is otherwise authorized shall also be subject to the following requirements when specified in any section of this subchapter.

- (1) Prior to prescribed or controlled burning for forest management purposes, the Texas Forest Service shall be notified.
- (2) Burning must be outside the corporate limits of a city or town except where the incorporated city or town has enacted ordinances which permit burning consistent with the Texas Clean Air Act, Subchapter E, Authority of Local Governments.
- (3) Burning shall be commenced and conducted only when wind direction and other meteorological conditions are such that smoke and other pollutants will not cause adverse effects to any public road, landing strip, navigable water, or off-site structure containing sensitive receptor(s).

(4) If at any time the burning causes or may tend to cause smoke to blow onto or across a road or highway, it is the responsibility of the person initiating the burn to post flag-persons on affected roads.

(5) Burning must be conducted downwind of or at least 300 feet (90 meters) from any structure containing sensitive receptors located on adjacent properties unless prior written approval is obtained from the adjacent occupant with possessory control.

(6) Burning shall be conducted in compliance with the following meteorological and timing considerations:

(A) The initiation of burning shall commence no earlier than one hour after sunrise. Burning shall be completed on the same day not later than one hour before sunset, and shall be attended by a responsible party at all times during the active burn phase when the fire is progressing. In cases where residual fires and/or smoldering objects continue to emit smoke after this time, such areas shall be extinguished if the smoke from these areas has the potential to create a nuisance or traffic hazard condition. In no case shall the extent of the burn area be allowed to increase after this time.

(B) Burning shall not be commenced when surface wind speed is predicted to be less than six miles per hour (mph) (five knots) or greater than 23 mph (20 knots) during the burn period.

(C) Burning shall not be conducted during periods of actual or predicted persistent low level atmospheric temperature inversions.

(7) Electrical insulation, treated lumber, plastics, non-wood construction/demolition materials, heavy oils, asphaltic materials, potentially explosive materials, chemical wastes, and items containing natural or synthetic rubber must not be burned.

§111.221. Responsibility for Consequences of Outdoor Burning.

The authority to conduct outdoor burning under this regulation does not exempt or excuse any person responsible from the consequences, damages, or injuries resulting from the burning and does not exempt or excuse anyone from complying with all other applicable laws or ordinances, regulations, and orders of governmental entities having jurisdiction, even though the burning is otherwise conducted in compliance with this regulation.

Appendix D: Background

30 TAC 111.201 prohibits outdoor burning in Texas, except as stated in Sections 111.205–15. It also prohibits storing spontaneously combustible materials other than “solid fossil fuel” (i.e., coal) outside. The exception for coal was made to be consistent with the intent expressed in the preamble to the 1989 revisions to the rule.

Land-clearing operation. The last sentence of this definition indicates two different kinds of exclusions. The first, for on-site property waste burns, is covered in Section 111.209(4); the second, for burns for ecological restoration, is covered in Section 111.211(1). In practice, prescribed burns and land-clearing burns may have similarities; occasionally it is necessary in a prescribed burn to bulldoze trees or brush into piles to obtain the appropriate effect. The key difference is the concept of “conversion.” The goal of land clearing is a major change in land use, i.e. the conversion of the land from one use to another; the goal of a prescribed burn is to restore, maintain, or renew the ecosystem.

Practical alternative. This definition contains four criteria, each of which must be considered to determine whether an alternative is practical. The standard of judgment should be that of a reasonable person. For example, an option that is technologically available but neither economically affordable nor logistically possible is not practical. A method other than burning may not be practical if it cannot achieve the desired ecological outcome. An alternative that is technologically, economically, and logistically feasible is not practical if it causes a greater ecological harm than burning.

In Section 111.205(b), the wording “at which training routinely will be conducted” is used to eliminate potential confusion. For example, if training is conducted weekly except during holidays and when meteorological conditions are unfavorable, the facility still would qualify under this section of the rule. Other similar situations may also qualify.

Section 111.209(1) specifies that collection of domestic waste by the local governmental agency or authorized agent must occur on the premises where the waste is generated. The governmental provision of a transfer or convenience station to which residents may bring waste does not constitute collection of domestic waste; therefore, burning may take place in that instance. Any authorization of collection services by a government or other jurisdiction must be specific and well-defined. For a government merely to say it

is OK for anybody to collect garbage commercially within its jurisdiction does not constitute authorized collection for the purposes of this rule.

Section 111.209(6) recognizes an agricultural practice that continues in many parts of the state. The key factor is whether a practical alternative exists. Determining whether there is a practical alternative requires evaluating such things as the type of crop, soil moisture level, soil nutrient benefits, cropping sequence, and cost of alternative disposal methods.

Section 111.209(7) was added to deal with situations in which accumulated vegetation has the potential to do such things as obstruct the flow of water and cause flooding or provide habitat for vermin, but where it is not feasible to burn on-site because doing so would create a nuisance or traffic hazard. Each such burn requires prior approval from the regional office. A site cannot be designated by the municipality or county for continual use, as a standard operating procedure, to augment normal brush disposal. The intent is that the government (or other organization) will not conduct such a burn more frequently than once every two months, no matter how many sites it may have available. For example, it is not permissible for it to conduct a burn at one site and then have another burn at another site a few days later, circumventing the intent of the rule.

Section 111.211 recognizes the use of fire as a necessary management tool for particular situations for which there is no practical alternative. All such burns are subject to the General Requirements for Allowable Outdoor Burning (111.219).

Section 111.213 sets forth a mechanism for remediation to avoid additional environmental degradation in an emergency, such as preventing a petroleum substance from entering a waterway. Once the emergency is under control, it is not permissible to burn the material used to absorb the hydrocarbon or other wastes associated with emergency control. This section should not be used to sanction disposal. Note that the Outdoor Burning Rule refers to Section 101.6 (Notification Requirements for Major Upsets). However, that section has been repealed and replaced by Section 101.201 (Emissions Events Reporting and Record-keeping Requirements).

Section 111.219(6)(A) allows flexible burn opportunities with consideration for meteorological conditions conducive to dispersion. The requirement for having a responsible

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party in attendance during the active burn phase does not mean someone has to be in attendance once the fire is virtually complete and is not advancing, i.e., once it principally consists of glowing coals with possibly some patchy residual fires. The extent of the burn may not be allowed to increase after one hour before sunset. A fire that has burned down to glowing coals has consumed most of the volatile substances and will not progress as a flame. It is understood that items such as stumps may burn for several days. Residual fires and smoldering objects without the potential to create a nuisance or traffic hazard need not be quenched. For example, if you

wish to burn 100 acres with a road on one side and no sensitive structures in other directions from the burn area, you would be prudent to extinguish residual fires and smoldering objects within a swath along the boundary with the road where the potential for nuisance or traffic hazard exists, but allow the remaining portion of the burn site to subside at a natural rate.

Section 111.219(7) specifically prohibits the burning of insulated wire without prohibiting the burning of piles created by fence demolition that contain wire and untreated wood wastes.

APPENDIX K – Longleaf Pine Restoration Plan

This plan is being developed in association with the fire management plan. This ecological restoration plan focuses on restoring longleaf pine (*Pinus palustris*) to areas of the preserve where this fire-dependent ecosystem has been replaced by a mixture of pine and hardwood with a thick brush understory. This stand replacement was due to logging, fire suppression, and other land uses in the Big Thicket area during much of the 20th century. Restoration of open stands of longleaf pine with dense herbaceous understory will: 1) increase the resilience of fire dependent ecosystems to future natural disturbances such as wildfire, drought, insect outbreaks, wind events, and climate change; 2) restore fire-adapted ecosystems and associated wildlife; and 3) reduce a significant fuel hazard in mid-story brush density, making prescribed burning safer for employees and nearby residents and wildfire control more successful. The longleaf pine restoration plan will utilize fire management activities described in this plan to accomplish the restoration and fire management goals described in both documents. The longleaf pine restoration plan will be placed in this Appendix K when it is completed.