

ENVIRONMENTAL ASSESSMENT

Elkins Lake Hazardous Fuels Reduction Project
Huntsville, Walker County, Texas

HMGP-DR-1791-TX Project #197

December 2010



FEMA

Prepared by the Federal Emergency Management Agency, Region 6, Denton, TX

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Acronyms

APE	Area of Potential Effects
BMP	Best Management Practice
CAA	Clean Air Act
CATEX	Categorical Exclusion
CEQ	Council on Environmental Quality
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CWA	Clean Water Act
CWPP	Countywide Wildfire Protection Plan
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
HMGP	Hazard Mitigation Grant Program
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
RCRA	Resource Conservation and Recovery Act
RCW	Red-cockaded Woodpecker
SHPO	State Historic Preservation Office
SWRA	Southern Wildfire Risk Assessment
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TDEM	Texas Division of Emergency Management
TFS	Texas Forest Service
THC	Texas Historical Commission
TPWD	Texas Parks and Wildlife Department
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
VOC	Volatile Organic Compound
WUI	Wildland Urban Interface

1.0 Introduction

Elkins Lake is a neighborhood within the southern limits of the city of Huntsville, Walker County, Texas. The Elkins Lake neighborhood is a golfing community which consists of approximately 1,400 homes. It centers around Elkins Lake and is bounded by Sam Houston National Forest to the west, south, and east. Portions of forested land around the northern parts of the community are not federally owned. Much of the community is secluded with limited access and egress routes (see Figure 1-1 and Figure 1-2).

Walker County, through the Texas Division of Emergency Management (TDEM), is seeking funding from the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Grant Program (HMGP) to mitigate wildfire threats to the Elkins Lake neighborhood.

This Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the President's Council on Environmental Quality (CEQ) regulations to implement NEPA (40 Code of Federal Regulations (CFR) Parts 1500-1508), and FEMA's regulations implementing NEPA (44 CFR Part 10). FEMA is required to consider potential environmental impacts before funding or approving actions and projects. The purpose of this EA is to analyze the potential environmental impacts of the proposed hazardous fuels reduction actions near the Elkins Lake neighborhood in Walker County, Texas. FEMA will use the findings in this EA to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

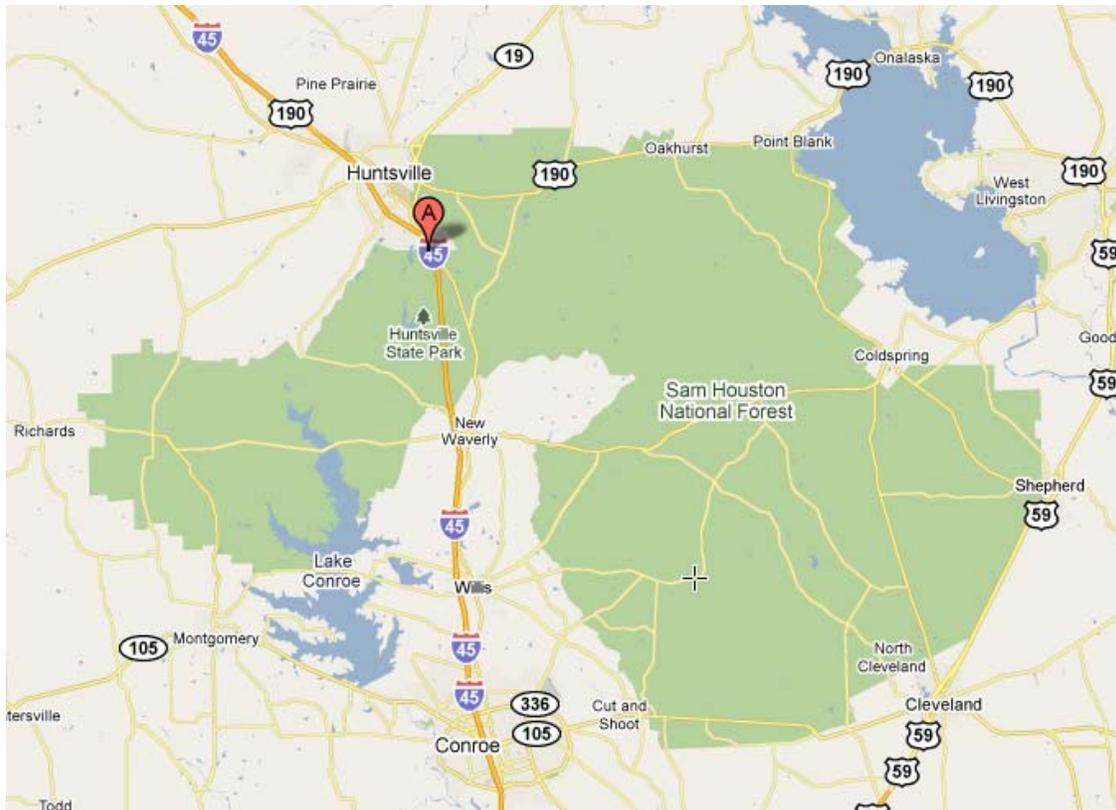


FIGURE 1-1: Marker A represents Elkins Lake Neighborhood, Huntsville, Walker County, Texas.

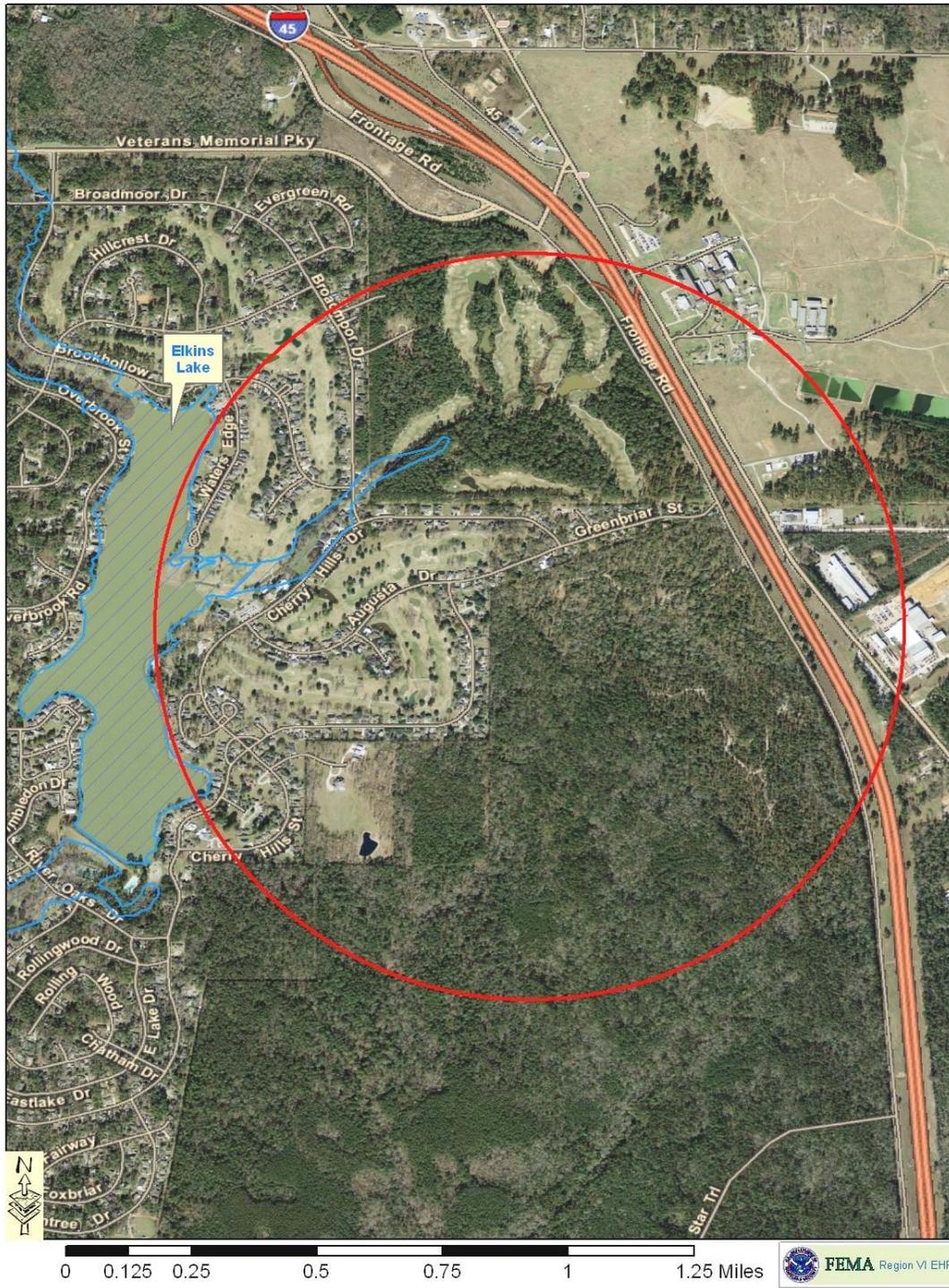


FIGURE 1-2: Project area in Elkins Lake Neighborhood of Huntsville, Walker County, Texas. Blue shading indicates regulatory floodplain.

2.0 Purpose and Need

During periods of extreme drought, the residents of Walker County and Elkins Lake face risk for property damage, injury, and loss of life from wildland fire events. Walker County, in conjunction with local fire departments, the Texas Forest Service (TFS), and local municipalities, prepared a Countywide Wildfire Protection Plan (CWPP; TFS, 2007). The CWPP, which was developed in compliance with the Healthy Forest Restoration Act of 2003, assessed risk throughout the county, and prioritized actions that would reduce hazardous fuels. The CWPP was integrated into the regional and county Mitigation Action Plan. As a result of the CWPP, the Elkins Lake neighborhood was identified as “at risk” for wildland fire through the Southern Wildfire Risk Assessment (SWRA) and through additional assessments that utilized the National Fire Protection Association’s Fire Hazard Severity Form. Although some fuel reduction efforts are being conducted near Elkins Lake by the Sam Houston Ranger District of the United States Forest Service (USFS) in the Sam Houston National Forest, other forested land that surrounds the community is not federally owned and therefore is not being maintained by USFS. This forested land poses a wildland fire threat to the community’s homes and access roads, in particular along Augusta Drive (see Figure 2-1), and Walker County is seeking HMGP funding from FEMA to mitigate this threat.



FIGURE 2-1: Photo showing vegetation encroachment on Elkins Lake homes. Photo courtesy of Donna Work, Texas Forest Service.

Through HMGP, FEMA provides grants to states and local governments to implement long-term hazard mitigation measures, including wildfire mitigation. The purpose of HMGP is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. HMGP is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

3.0 Alternatives

3.1 No Action Alternative

Under the no action alternative, Walker County would do nothing to prevent wildland fire risk to the Elkins Lake Community. Vegetation encroachment at the Wildland Urban Interface (WUI) would continue and would not be abated.

3.2 Hazardous Fuels Reduction (Proposed Action)

The proposed HMGP project consists of two components. The first component is a campaign to educate Elkins Lake residents about wildfire hazards and means to reduce risk to personal property. A brochure generated by the Texas Forest Service will be distributed door to door and at local meetings and events. This portion of the scope of work falls under FEMA's categorical exclusion (CATEX) for training in accordance with 44 CFR Part 10.8(d)(2)(v). Therefore, this portion of the project has been determined to be excluded from the need to prepare either an Environmental Impact Statement or Environmental Assessment and will not be further considered in this document.

The second component of the project is the reduction of wildfire fuel sources on a 7.91 acre tract of land (from Latitude: 30.66481; Longitude: -95.52194 to Latitude: 30.66680; Longitude: -95.51549) that lies to the south of Augusta Drive, one of two access/egress routes to the community (Figure 3-1). This tract is forested and vegetation encroachment presents a fire hazard to the nearby homes.

Mature pine timber with a yaupon understory is the predominant fuel type that surrounds Elkins Lake. A survey of the 7.91 acre tract conducted by the Texas Forest Service on July 5, 2010, revealed that the majority of the stand was hardwood trees and bushes, with some mature pines and a few areas with natural pine regeneration. The tract included the following tree species: loblolly and shortleaf pine, sweetgum, maple, elm, water oak, post oak, red oak, black cherry, hickory, and Chinese tallow (a non-native invasive species). The understory consisted mainly of yaupon, American beautyberry, grapevines, other vines, and small hardwood trees. Japanese climbing fern, another exotic invasive plant species, was also observed in the project area. Several downed trees and some areas of discarded tree and shrub trimmings are scattered throughout the stand. See Figure 3-2 for a representative photo of the project area.

According to data available from the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ), the project area does not contain any of the following: petroleum storage tanks, Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Superfund sites, Resource Conservation and Recovery Act (RCRA) hazardous waste sites, and solid waste landfills.

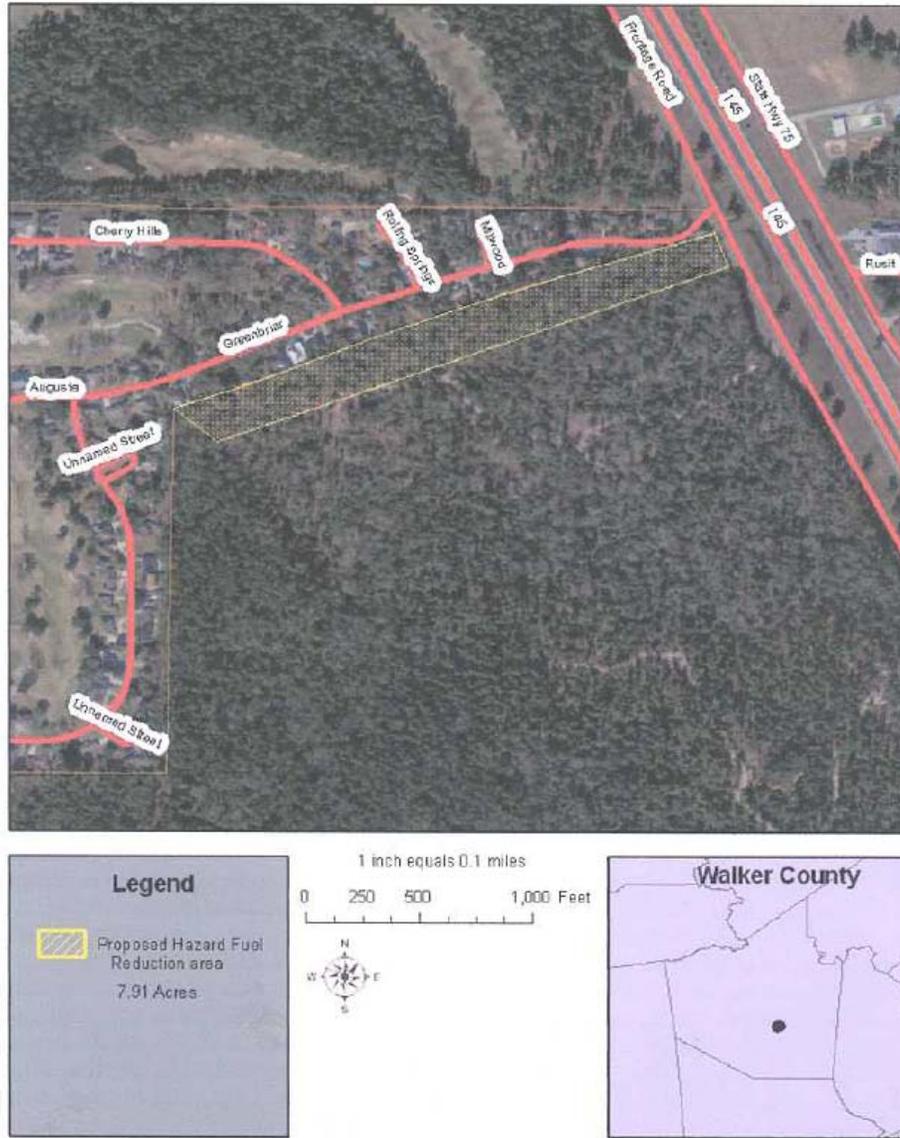


FIGURE 3-1: Map of Elkins Lake Hazardous Fuels Reduction on 7.91 Acres (Proposed Action Indicated by Yellow Shading).

Fuels reduction activities will include the removal of ladder fuels (e.g. vines and hanging broken branches) and mulching and scattering of all small trees and shrubs less than 4 inches in diameter. Living trees that are left standing will be pruned to reduce the potential of fire moving from the ground into the canopy of the remaining trees. This will be accomplished by raising the crown height of the tree and removing shrubbery from directly under larger trees. Living trees will be pruned up to 6 feet in height. Pruning of live and dead branches will not exceed 25 percent of the overall crown of the tree to avoid damage and injury to the tree. Pruning will be conducted in accordance with the International Society of Arboriculture Tree-Pruning Guidelines and the American National Standards Institutes A300 Pruning Standard. Vegetation removal and modification will be accomplished with rubber track mulching equipment and through hand clearing in order to reduce soil disturbance.



FIGURE 3-2: Representative Vegetation in Proposed Project Area. Photo courtesy of Donna Work, Texas Forest Service.

Standing dead trees will be cut off at the stump and root balls will remain intact and will not be removed. The dead trees will be mulched or chipped on site with the emphasis being on the mastication of smaller branches that contribute to fuel loading. Some of the very large tree logs already on the ground have begun to decay and do not pose as significant wildfire risk and will be left as wildlife habitat where appropriate. For each acre in the project area, three non-hazardous standing dead trees greater than 12 inches in diameter will be left for wildlife habitat.

These efforts will complement similar work that is taking place on nearby USFS lands. No portion of this HMGP project will fund work on USFS lands.

Walker County has entered into a maintenance agreement with Gibbs Brothers Management Company, LLC. In turn, Gibbs Brothers Management Company has entered into a Participating Agreement (10-PA-11081304-027), dated September 22, 2010, with the USFS whereby the USFS will execute a treatment plan for 5 years from the date of the agreement. Under the treatment plan, the USFS has agreed to mow the 7.91 acre project site with a tractor and bush hog on an annual basis. This maintenance plan will keep the project area free from the build-up of ladder fuels and will sustain the fuels reduction that will be achieved by the proposed action. Upon expiration on of the Participating Agreement, the agreement may be renewed or maintenance activities will again become the responsibility of Gibbs Brothers Management Company.

4.0 Affected Environment and Potential Impacts

4.1 Physical Resources

4.1.1 Air Quality

Section 176(c) of the Clean Air Act (CAA) prohibits federal entities from taking actions in nonattainment or maintenance areas which do not conform to the State Implementation Plan for the attainment and maintenance of the National Ambient Air Quality Standards. In November 1993, the Environmental Protection Agency (EPA) promulgated regulations to implement Section 176(c), including the General Conformity Regulations to ensure that federal actions conform to the State Implementation Plans.

According to the TCEQ (2010b; Appendix A), the project area is unclassified or in attainment of the National Ambient Air Quality Standards for all six criteria air pollutants (ozone, particulate matter, lead, nitrogen dioxide, sulfur dioxide, and carbon monoxide). Therefore, the General Conformity Regulations do not apply.

No Action Alternative

Under the no action alternative, the vegetated areas near the Elkins Lake neighborhood would not be altered. No steps would be taken to reduce the potential for wildland fire. Hazardous fuel accumulation would continue and fire risk would increase. There would be no temporary emissions of pollutants from mulching and vegetation removal equipment, but criteria air pollutants and other hazardous pollutants would be released should a wildfire ensue, including carbon dioxide, water vapor, particulate matter (some of which contain volatile organic compounds [VOCs]), and carbon monoxide. In addition, vehicles used in fighting the wildfire would cause a temporary increase in emissions. Particulate matter levels would likely increase following a wildfire because soils would be exposed and would be disturbed and distributed by winds.

Hazardous Fuels Reduction (Proposed Action)

Under the proposed action, vegetation in the 7.91 acre project area would be reduced using hand clearing and rubber track mulching equipment. There may be some temporary negative air quality effects from emissions from the mulching equipment. The intention of the proposed action is to reduce the likelihood of wildfire, which would in turn have the added benefit of reducing the introduction of air pollutants that would result from a fire.

4.1.2 Water Quality

Portions of the Alligator Branch of East Sandy Creek run through the eastern portion of the project area. Alligator Branch flows to Lake Raven in Huntsville State Park where water is then discharged to the Prairie Branch of East Sandy Creek. East Sandy Creek eventually flows into Lake Conroe on its northeastern shore. According to TCEQ, East Sandy Creek is not listed on

the 303(d) impairment list, indicating that this surface water is meeting water quality standards (TCEQ, 2010a). In addition, East Sandy Creek has been identified by the Texas Parks and Wildlife Department (TPWD) as a stream that meets biological function criteria (31 Texas Administrative Code (TAC) §357.8 (b) (1)) for high biodiversity, hydrologic function criteria (31 TAC §357.8 (b) (2)) for water quality, and riparian conservation area criteria (31TAC§357.8(b)(3)) (Noris and Linum, 1999).

No Action Alternative

Under this alternative, the vegetated areas near the Elkins Lake neighborhood would not be altered and no steps would be taken to reduce the potential for wildland fire. Hazardous fuel accumulation would continue and fire risk would increase. Should a wildfire ensue, vegetation could be eliminated, exposing surface soils to erosion. Sediments could accumulate in the runoff to nearby streams and creeks, causing temporary deterioration of water quality. Otherwise, conditions would remain the same and there would be no impacts to water quality.

Hazardous Fuels Reduction (Proposed Action)

No long term adverse impacts to water quality are anticipated as a result of implementing the proposed action. Use of heavy equipment, such as the proposed mulching equipment, could temporarily adversely affect water quality by exposing soils and thereby increasing erosion during rainfall and runoff events. However, vegetation will be mulched and deposited on-site, which will likely reduce the potential for sediment delivery to surface streams.

The proposed action could result in slightly greater water yields. Mulching, removal of dead wood, and pruning would result in reduced interception of precipitation, greater soil saturation, and increased groundwater recharge. Evapotranspiration would also be reduced due to pruning and tree thinning, resulting in greater availability of water for groundwater recharge and surface water yield.

The TCEQ reviewed the proposed action under the Clean Water Act (CWA) and does not anticipate significant long term environmental impacts as a result of the project (TCEQ, 2010b; see Appendix A). The applicant must ensure that best management practices are implemented to prevent erosion and sedimentation of nearby or adjacent waterways during the proposed vegetation management activities. Equipment must be stored and staged to prevent erosion and sedimentation to ensure that waters are not adversely impacted per the CWA.

4.1.3 Wetlands

Section 404 of the Clean Water Act (CWA) regulates the placement of dredged or fill materials into wetlands and other Waters of the United States. Proposed activities are regulated through a permit review process administered by the U.S. Army Corps of Engineers. The purpose of Executive Order (EO) 11990 is to "minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands". To meet these objectives, EO 11990 requires federal agencies to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided.

A review of the National Wetlands Inventory online mapper (<http://www.fws.gov/wetlands/data/Mapper.html>), accessed on September 1, 2010, for the project site indicates that the area is not digitized. However, aerial images and topographic maps indicate that wetlands are not probable in the project area.

No Action Alternative

Under the no action alternative, the vegetated areas near the Elkins Lake neighborhood would not be altered, hazardous fuel accumulation would continue, and fire risk would increase. Should a wildfire ensue, vegetation could be eliminated, exposing surface soils to erosion. Sediments could accumulate in the runoff to nearby streams and creeks, causing temporary deterioration of water quality. Otherwise, conditions would largely remain the same and there would be no impacts to nearby waters or wetlands.

Hazardous Fuels Reduction (Proposed Action)

Though the National Wetlands Inventory does not contain digital data for the project area, aerial images and topographic maps indicate that wetlands are not probable. The proposed project will not involve the discharge of dredged or fill material into a wetland or other water of the United States, and therefore a permit under Section 404 of the CWA would not be required.

Use of heavy equipment, such as the proposed mulching equipment, could temporarily adversely affect water quality by exposing soils and thereby increasing erosion during rainfall and runoff events. However, vegetation will be mulched and deposited on-site, which might mitigate the potential for sediment delivery to surface streams.

The applicant must ensure that best management practices are implemented to prevent erosion and sedimentation of nearby or adjacent waterways during the proposed vegetation management activities. Equipment must be stored and staged to prevent erosion and sedimentation to ensure that waters are not adversely impacted per the CWA and Executive Order 11990.

4.1.4 Floodplains

FEMA's regulations for complying with Executive Order (EO) 11988 Floodplain Management are set forth in 44 CFR Part 9. Under EO 11988, FEMA is required to determine if a proposed action is located in the floodplain and if so, identify and evaluate practicable alternatives to locating the project in the floodplain, including alternative sites outside of the floodplain. If no practicable alternatives exist, FEMA is required to identify and evaluate impacts of the proposed action on floodplain values. If impacts cannot be avoided, FEMA must design or modify its action in order to minimize potential harm to or within the floodplain, as appropriate. FEMA must also involve the public in this decision-making process.

Per Flood Insurance Rate Map (FIRM) panel number 4806390120C, dated May 7, 2001, the project area is located in Zone X, outside the 100 year and 500 year flood zone (Figure 4-1).

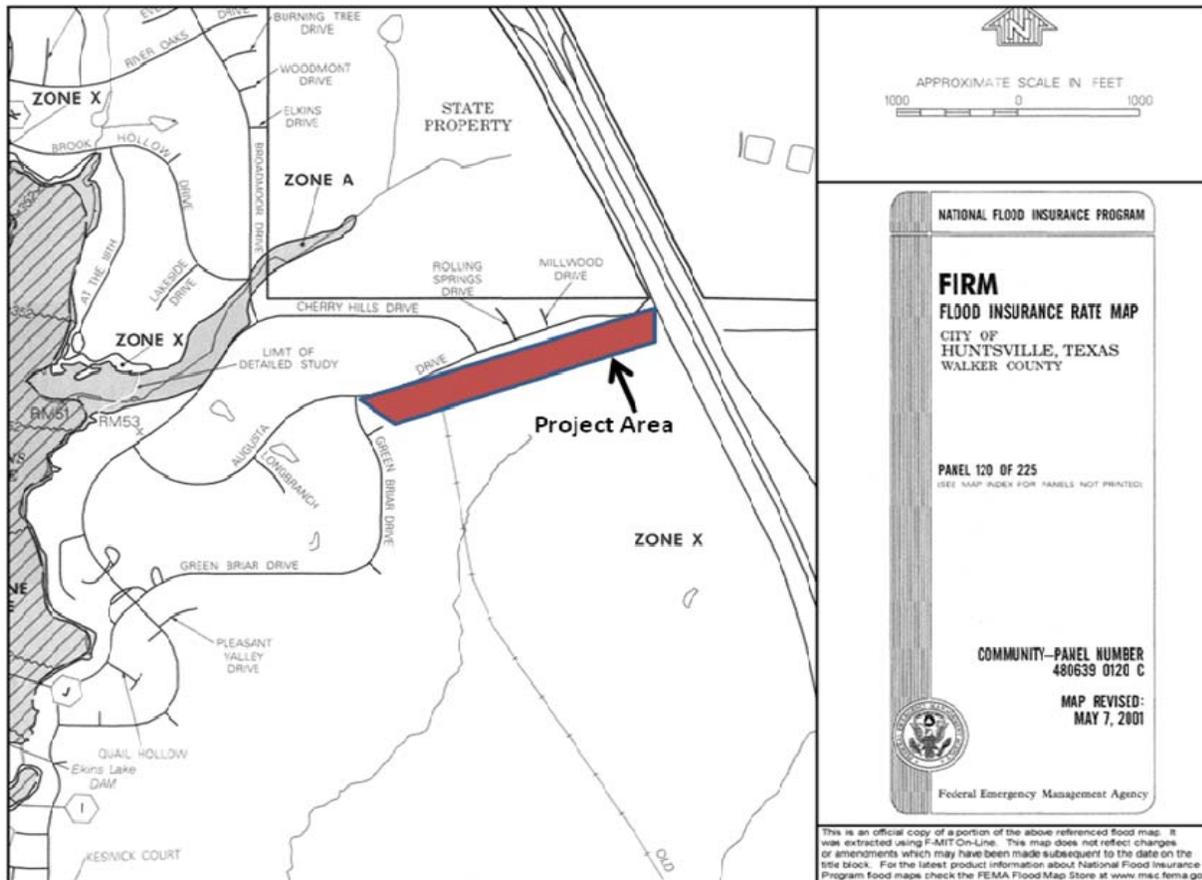


FIGURE 4-1: Flood Insurance Rate Map 4806390120C, dated May 7, 2001, shows that the project area is located in Zone X which is outside of the 100 year floodplain.

No Action Alternative

Under the no action alternative, the vegetated areas near the Elkins Lake neighborhood would not be altered. No steps would be taken to reduce the potential for wildland fire. Hazardous fuel accumulation would continue and fire risk would increase. If a wildfire ensued, vegetation and groundcover would likely be partially or completely incinerated, which could lead to increased stormwater runoff following a rain event. Therefore, the no action alternative has the potential to increase localized flooding because wildland fire risk would remain high. The complete 8-step decision-making process as outlined in 44 CFR Part 9 is not required for this alternative as no federal funding would be involved.

Hazardous Fuels Reduction (Proposed Action)

Under the proposed action, vegetation in the 7.91 acre project area would be reduced but not eliminated. Stormwater would be absorbed into the unpaved ground and would recharge groundwater supplies or it would runoff as surface water into the nearby Alligator Branch of East Sandy Creek or surrounding forested areas. Surface and ground waters would also be cycled through evaporation and transpiration processes. The proposed action would not significantly alter the water cycle or flooding rates when compared to the current state. The proposed action

would reduce the chance of wildfire and therefore presents an indirect benefit of protecting and maintaining the existing vegetation and groundcover, which helps to impede runoff and absorb stormwater. Because the project area is not located in the floodplain, completing the 8-step decision-making process as outlined in 44 CFR Part 9 is not necessary.

4.2 Threatened and Endangered Species and Critical Habitat

Congress passed the Endangered Species Act (ESA) in 1973 to protect and recover imperiled species and the ecosystems upon which they depend. The ESA is administered by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). Under the ESA, species may be listed as “endangered,” or in danger of extinction throughout all or a significant portion of its range, or “threatened,” or likely to become endangered within the foreseeable future.

According to the USFWS endangered and threatened species list, the bald eagle, *Haliaeetus leucocephalus*, and the red-cockaded woodpecker, *Picoides borealis*, are present in Walker County. No critical habitat is designated in the project area. (<http://www.fws.gov/southwest/es/EndangeredSpecies/lists>).

The bald eagle has been delisted as a threatened or endangered species and its recovery is being monitored. However, the eagle is still protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

The red-cockaded woodpecker (RCW) is listed as endangered and was included for protection under the ESA in 1973. The RCW nests and roosts in old growth pine trees that are still living. These woodpeckers live in mature pine forests—specifically those with longleaf pines averaging 80 to 120 years old and loblolly pines averaging 70 to 100 years old. The project area encompasses edge habitat which includes mature pine trees. Donna Work, biologist and RCW coordinator with the Texas Forest Service, surveyed the project site on July 5, 2010, and did not see or hear any signs of nesting or foraging RCWs. According to the survey, the project area contained mature loblolly and shortleaf pine. In addition, the stand had a heavy hardwood component and the following species were noted: sweetgum, maple, elm, water oak, post oak, red oak, black cherry, hickory, and Chinese tallow (a non-native invasive species). The understory consisted mainly of yaupon, American beautyberry, grapevines, other vines, and small hardwood trees. Japanese climbing fern, another exotic invasive plant species, was also noted in the project area.

No Action Alternative

This alternative would have no direct impact on the RCW or the bald eagle. Under the no action alternative, the vegetated areas near the Elkins Lake neighborhood would not be altered, hazardous fuel accumulation would continue, and fire risk would increase. Wildfire could result in a positive impact to the RCW if it were limited to clearing understory vegetation and creating open and park-like areas among the mature pines in the project area. However, a wildfire could potentially destroy all habitat in the project area and impacts would remain until vegetation and habitat could be reestablished through the succession process.

Hazardous Fuels Reduction (Proposed Action)

The proposed action has the potential to impact the RCW. The majority of the proposed work will be conducted on the forest floor and will involve dead trees, which do not serve as woodpecker habitat. The pruning of living trees will be limited to 6 feet in height. RCWs rarely come to the ground and, therefore, they will not likely be impacted by the proposed fuel management activities. In addition, past efforts that have removed forest undergrowth to create open, park-like areas have helped in the red-cockaded woodpecker recovery effort (www.fws.gov/endangered/factsheets/woodpecker.pdf).

Based on her survey, Donna Work, biologist and RCW coordinator with the Texas Forest Service, concluded that the project area was not conducive to RCW habitation because the stand had a heavy hardwood component and was denser than the preferred RCW habitat, which is open and park-like in character. FEMA has further determined that RCW foraging will not be impacted. According to Appendix 4 of the Recovery Plan for the Red-Cockaded Woodpecker (USFWS, 2003), "suitable foraging habitat consists of a pine or pine/hardwood stand of forest, woodland, or savannah in which 50 percent or more of the dominant trees are pines and the dominant pine trees are generally 30 years in age or older." The 7.91 acre project area contained a majority of hardwood trees and bushes. The mature pines that were present (loblolly and shortleaf pine) did not make up 50 percent of the stand and were not the dominant species. Therefore, the project area does not represent "suitable foraging habitat." Per Appendix 4 of the Recovery Plan, "if no suitable foraging habitat is present within the project area..., then further evaluation is unnecessary and red-cockaded woodpeckers are considered absent."

Based on a review of the red-cockaded woodpecker's habitat requirements and the survey of the project area, FEMA has determined that the proposed project "May Affect, not Likely to Adversely Affect" the red-cockaded woodpecker. The USFWS concurred with FEMA's determination in a letter dated August 24, 2010 (see Appendix A).

4.3 Cultural Resources

Federal regulations require that FEMA consider the effects of a project on historic properties in compliance with Section 106 of the National Historic Preservation Act (NHPA). This project has been reviewed in accordance with the 2005 Statewide Programmatic Agreement between FEMA, the Texas Historical Commission (SHPO), and the Governor's Division of Emergency Management (now known as the Texas Division of Emergency Management). Walker County contacted the SHPO regarding the proposed project and the SHPO subsequently issued a determination of "No Historic Properties Affected" on January 22, 2010. FEMA reviewed this determination and the SHPO site files in August 2010. The Area of Potential Effects (APE) did not include any of the following: National Register listed or eligible historic properties or districts, State Register historical sites, historical markers, cemeteries, neighborhood surveys, or archeological project areas. Therefore, FEMA concurs with the January 22, 2010, findings and has no further compliance responsibilities under Section 106 of the NHPA.

No Action Alternative

There are no anticipated effects to cultural resources under the no action alternative.

Hazardous Fuels Reduction (Proposed Action)

There are no anticipated effects to cultural resources under the proposed action. There are no structures in the immediate project vicinity. Vegetation removal and modification will be accomplished with rubber track mulching equipment and through hand clearing in order to reduce soil disturbance. In addition, standing dead trees will be cut off at the stump rather than removing the entire root ball, which will minimize soil disturbance. Walker County contacted the SHPO regarding the proposed project and the SHPO subsequently issued a determination of "No Historic Properties Affected" on January 22, 2010. FEMA reviewed this determination in August 2010 and concurs with its findings.

In the event that archeological deposits, including any Native American pottery, stone tools, bones, or human remains, are uncovered, the project shall be halted and the applicant shall stop all work immediately in the vicinity of the discovery and take reasonable measures to avoid or minimize harm to the finds. All archeological findings will be secured by Walker County and access to the sensitive area restricted. The applicant will inform FEMA immediately and FEMA will consult with the SHPO. Work in sensitive areas cannot resume until consultation with the SHPO and other consultations is completed and appropriate measures have been taken to ensure that the project is in compliance with the NHPA.

4.4 Environmental Justice

Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) directs federal agencies to incorporate environmental justice into its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.

The Elkins Lake neighborhood is a golfing community that does not contain a significant number of minority or low income populations. According to EJ View (<http://epamap14.epa.gov/ejmap/entry.html>), an EPA web-based mapping tool that generates detailed maps and reports based on site-specific data sets that incorporate Census information, the majority of the population in the Elkins Lake area has a high school education or higher and the per capita annual income ranges from \$41,000 to \$72,000. In addition, the surrounding population is less than 10 percent minority.

No Action Alternative

Under this alternative, conditions will remain the same and the risk of wildland fire and damage to structures in the Elkins Lake neighborhood will increase. There are no anticipated disproportionate impacts to low income or minority populations under this alternative.

Hazardous Fuels Reduction (Proposed Action)

There are few low income or minority populations in or near the project area and the proposed action will not disproportionately affect such populations.

4.5 Cumulative Impacts

Cumulative impacts are the impacts on the environment which result from the incremental effect of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what entity is undertaking these actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Additional fuel management activities that cover 260 acres of land are planned within Compartments 33, 36, 37, 49, 50, 57, and 66 in the west and central portions of the Sam Houston National Forest within Walker and Montgomery Counties, TX (USDA, 2010). Areas within these compartments lie adjacent to numerous residential subdivisions. The project is proposed by the Sam Houston Ranger District and is currently undergoing the NEPA review by the USFS. The proposed action is to:

- Remove most of the understory and midstory trees, using mechanical equipment such as a rotary cutting machine or other cutting equipment (mulch) to create a 200-foot wide shaded fuel break along National Forest boundaries.
- Prescribe burn these mulched areas (about 260 acres).
- Control non-native invasive plant species in these mulched areas.

Compartment 57 of the Sam Houston National Forest lies to the southeast of the Elkins Lake neighborhood and work is proposed within the immediate vicinity of the proposed alternative that is the subject of this Environmental Assessment. The Sam Houston Ranger District plans to treat 56 acres in Compartment 57 in order to protect approximately 69 developed home sites (see Figure 4-2).

These additional fuels management activities in the vicinity of the project area may increase the amount of sediment that reaches local waterways, though adverse effects to water quality should be temporary in nature while the work is being conducted. There would be a greater risk of erosion and sedimentation of waterways if the no action alternatives were pursued and a wildfire were to denude the land of vegetation.

The proposed work in Compartment 57 of the Sam Houston National Forest includes prescribed burning, which could generate air pollutants such as ozone and particulate matter. Walker County is in attainment with air quality standards, and emissions associated with a prescribed burn would be temporary in nature. No significant long-term adverse effects to air quality are anticipated when the Compartment 57 work is considered in conjunction with the proposed action south of Elkins Lake. Under the no action alternatives, these areas in Walker County would be at higher risk for an uncontrolled wildfire event that would also release air pollutants.

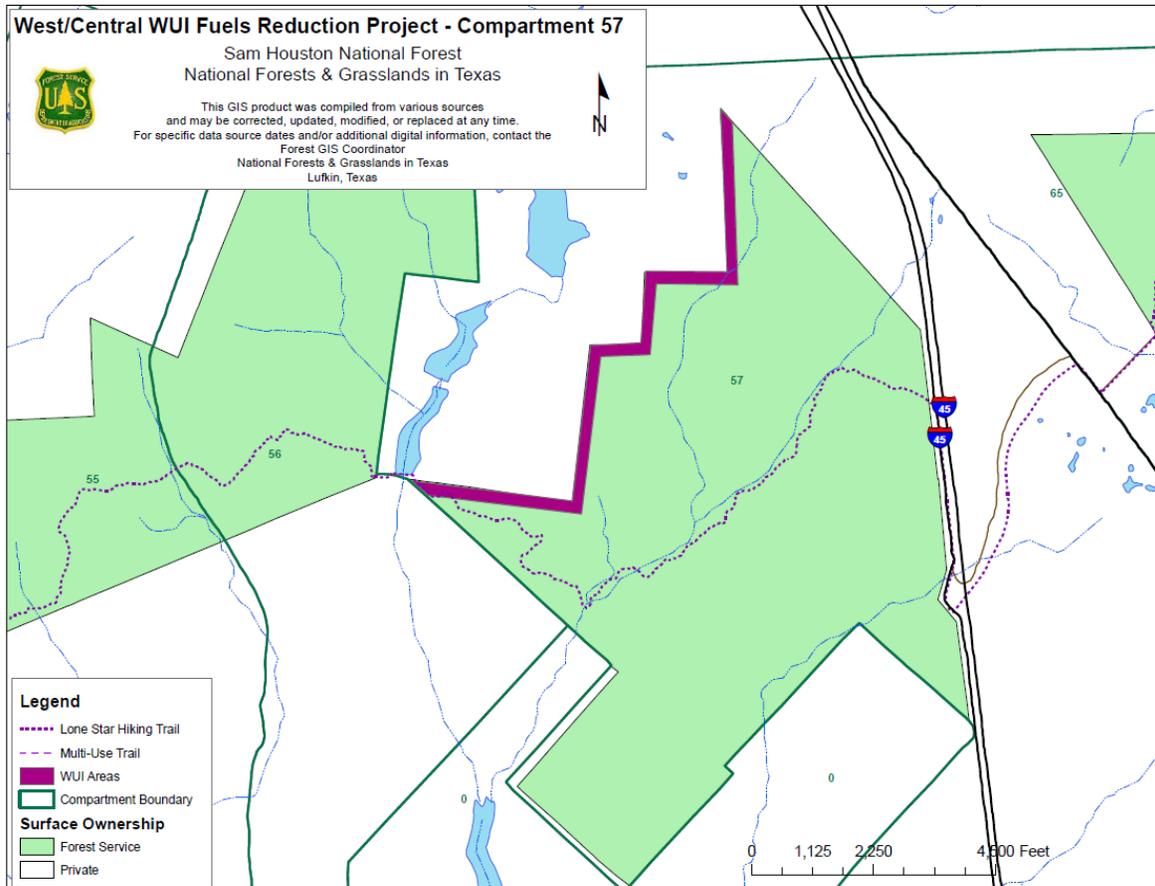


FIGURE 4-2: Proposed Fuels Reduction Work (indicated in pink) by the USFS in Elkins Lake Area. USDA, 2010.

The proposed action involves 7.91 acres of land in Walker County. USFS work in Compartment 57 which is in Walker County involves 56 acres. Overall, the USFS proposes to do fuels reduction activities over 260 acres of Sam Houston National Forest, which contains 163,037 acres in total. Therefore the proposed vegetation management and prescribed burn activities make up a very small portion of this forested area (less than .1 percent). Though species such as the endangered RCW are known to inhabit Sam Houston National Forest, impacts will be minimal since no living cavity trees will be removed and because mitigation measures will be in place for work in the treatment areas (USDA, 2010).

4.6 Summary of Impacts and Mitigation Measures

Affected Environment/ Resource Area	Impacts	Agency Coordination	Mitigation/BMPs
Air Quality	No anticipated long-term adverse impacts.	TCEQ	None
Water Quality	No anticipated long-term adverse impacts.	TCEQ	The applicant shall ensure that best management practices are implemented to prevent erosion and sedimentation of nearby or adjacent waterways. Equipment should be stored and staged to prevent erosion and sedimentation to ensure that waters are not adversely impacted per the CWA.
Wetlands	No anticipated long-term adverse impacts.	None	The applicant shall ensure that best management practices are implemented to prevent erosion and sedimentation of nearby or adjacent waterways. Equipment should be stored and staged to prevent erosion and sedimentation to ensure that waters are not adversely impacted per the CWA and Executive Order 11990.
Floodplains	None	None	None
Threatened and Endangered Species and Critical Habitat	May Affect, not Likely to Adversely Affect the red-cockaded woodpecker.	USFWS	None
Cultural Resources	No anticipated positive or negative impacts.	SHPO	If archeological deposits are uncovered, the project shall be halted. The applicant will inform FEMA immediately and FEMA will consult with the SHPO. Work cannot resume until consultation is completed.
Environmental Justice	None	None	None

5.0 Agency Coordination and Public Involvement

Walker County sent coordination letters to the following resource agencies: Texas Historical Commission (SHPO), TCEQ, Texas Forest Service, and Texas Parks and Wildlife Department. In addition, FEMA informally consulted with the Clear Lake Field Office of the U.S. Fish and Wildlife Service. Responses to those request letters are included in Appendix A.

Walker County provided information to the public regarding the proposed fuels management project in the spring of 2010 through the Elkin's Lake Homeowner's Association's newsletters and meetings. In addition, a multi-jurisdictional group of agencies, organizations, and individuals collaborated to develop the Walker County Community Wildfire Protection Plan (CWPP), which identified the wildfire risk in the Elkins Lake neighborhood.

A public notice advertising the availability of this Draft Environmental Assessment (EA) for public review and comment was posted in the Huntsville Item on September 30, 2010 and at <http://www.fema.gov/plan/ehp/envdocuments/ea-region6.shtm>. The Draft EA was made available for viewing at Huntsville Fire Stations #1 and #2 and at the FEMA website for a 15-day public comment period. No comments were received from the public during the 15-day comment period.

6.0 List of Preparers

Primary Author: Dorothy Weir, FEMA Region 6, Environmental Specialist

FEMA Contributors: Kevin Jaynes, CHMM, FEMA Region 6, Regional Environmental Officer
Amy Barnes, FEMA Region 6, Historic Preservation Specialist
Cheryl Brown, FEMA Region 6, Environmental Specialist

Technical Contributors: Leon Scaife, Texas Forest Service, Urban Wildland Interface Specialist
Donna Work, Texas Forest Service, Biologist and RCW Coordinator

7.0 References

- Norris, C., and G. Linam. 1999. Ecologically Significant River and Stream Segments-Region H. Available on-line at http://www.tpwd.state.tx.us/publications/pwdpubs/pwd_rp_t3200_1059c/index.phtml. Accessed July 19, 2010.
- TCEQ (Texas Commission on Environmental Quality). 2010a. DRAFT 2010 Texas 303(d) List (February 5, 2010). Available on-line at http://www.tceq.state.tx.us/assets/public/compliance/monops/water/10twqi/2010_303d.pdf. Accessed July 19, 2010.
- TCEQ. 2010b. TCEQ Grant and Texas Review and Comment System (TRACS) #10170, Elkins Lake Hazardous Fuels Reduction Project. Letter dated January 6, 2010. Austin, TX: TCEQ.
- TFS (Texas Forest Service). 2007. Walker County Community Wildfire Protection Plan (CWPP): An Action Plan for Wildfire Mitigation. Huntsville, TX: TFS.
- USDA (United States Department of Agriculture). 2010. Environmental Assessment: West/Central Wildland Urban Interface (WUI) Fuels Reduction Project. Lufkin, TX: USDA.

USFWS (United States Fish and Wildlife Service). 2003. Recovery Plan for the Red-cockaded Woodpecker (*Picoides borealis*) Second Revision. Atlanta, GA: USFWS.

8.0 Appendix A: Agency Responses

Bryan W. Shaw, Ph.D., *Chairman*
Buddy Garcia, *Commissioner*
Carlos Rubinstein, *Commissioner*
Mark R. Vickery, P.G., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 6, 2010

Mr. A.L. "Butch" Davis
Walker County
Office of Emergency Management
717 FM 2821
Huntsville, TX 77320

Re: TCEQ Grant and Texas Review and Comment System (TRACS) #10170, Walker County - Elkins
Lake Hazardous Fuels Reduction Project

Dear Mr. Davis:

The Texas Commission on Environmental Quality (TCEQ) has reviewed the above-referenced project and offers following comments:

A review of the project for General Conformity impact in accordance with 40 CFR Part 93 and Title 30, Texas Administrative Code § 101.30 indicates that the proposed action is located in Walker County, which is currently unclassified or in attainment of the National Ambient Air Quality Standards for all six criteria air pollutants. Therefore, General Conformity does not apply.

Although any demolition, construction, rehabilitation or repair project will produce dust and particulate emissions, these actions should pose no significant impact upon air quality standards. Any minimal dust and particulate emissions should be easily controlled by the construction contractors using standard dust mitigation techniques.

We do not anticipate significant long term environmental impacts from this project as long as construction and waste disposal activities associated with it are completed in accordance with applicable local, state, and federal environmental permits and regulations. We recommend that the applicant take necessary steps to insure that best management practices are utilized to control runoff from construction sites to prevent detrimental impact to surface and ground water.

Thank you for the opportunity to review this project. If you have any questions, please call Ms. Glenda Thorn at (512) 239-1980.

Sincerely,

A handwritten signature in cursive script that reads "Katherine Nelson".

Katherine Nelson
Assistant Division Director
Water Quality Planning Division



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Division of Ecological Services

17629 El Camino Real #211

Houston, Texas 77058-3051

281/286-8282 FAX 281/488-5882



August 24, 2010

Teresa L. Lukes
Deputy Regional Environmental Officer
Federal Emergency Management Agency
800 North Loop 288
Denton, Texas 76209-3698

Dear Ms. Lukes:

Thank you for your letter dated June 7, 2010, requesting our review of the Federal Emergency Management Agency's (FEMA) project, HMGP-DR-1791-TX-197, regarding wildfire mitigation and the reduction of hazardous fuels near Elkins Lake in Walker County, Texas.

The U.S. Fish and Wildlife Service (Service) concurs with FEMA's determination that the project is not likely to adversely affect the red-cockaded woodpecker. This concurrence is based on a review of the project description, additional survey information dated July 5, 2010, and Service files. If the project changes or additional information on the distribution of listed or proposed species becomes available, the project should be reanalyzed for effects not previously considered.

Our comments are provided in accordance with the provisions of the Endangered Species Act of 1973 (87) Stat. 884, as amended; 16 U.S.C. 703 et seq.

Please contact Moni Belton at 281/286-8282 if you have questions or need further assistance.

Sincerely,

Edith Erling
Acting Field Supervisor, Clear Lake ES Field Office

**WALKER COUNTY
OFFICE of EMERGENCY MANAGEMENT**

717 F.M. 2821 * Huntsville, Texas 77320



A.L. "BUTCH" DAVIS
Chief Deputy/Emergency
Management Coordinator
(936) 435-2400

DANNY PIERCE
County Judge/Emergency
Management Director
(936) 436-4910

DAVID CLARK
Deputy Emergency
Management Coordinator
(936) 435-2400

December 16, 2009

Mr. F. Lawrence Oaks
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711-2276

RE: NEPA Requirements
Elkins Lake Hazardous Fuels Reduction Project

Dear Mr. Oaks:

In accordance with the directives of the Hazard Mitigation Grant Program, we are notifying you of our intent to apply for funding under DR-1791, the Hurricane Ike disaster declaration. Grant funding will be used for the removal of hazardous fuel accumulations. This will include the green vegetation in the understory as well as dead and downed debris. All of the work will take place in the locations shown on the enclosed map(s). The vegetation removal will be accomplished with rubber track mulching equipment and hand clearing in an effort to create the least amount of soil disturbance on the forest floor. The property in our proposal is located along Augusta Drive, one of the two only entrances/exits for Elkins Lake Community.

Before beginning the project, the county is required to complete an Environmental Review and request the input of agencies concerning the possible impact of the project and its activities. To the best of our knowledge, the project will not have any negative impacts on navigable waterways. The project will not adversely impact the air, vegetation, wildlife or ground water, except on a short-term basis during a flooding event.

The purpose of this letter is to provide your agency an opportunity to comment on this project. Should you find or have record of any significant parks or wildlife areas within the proposed project site, we would appreciate your office contacting us at (936) 435-2400.

Sincerely,

A.L. "Butch" Davis
Emergency Management Coordinator
Walker County

NO HISTORIC PROPERTIES AFFECTED PROJECT MAY PROCEED	
by	
for	Mark Wolfe
	State Historic Preservation Officer
Date	1/22/10
Track#	