



Environmental Services, Inc.

**DRAFT**

**ENVIRONMENTAL ASSESSMENT  
NEW BRIAROAKS FIRE STATION  
8200 COUNTY ROAD 528  
BURLESON, JOHNSON COUNTY, TEXAS  
AFG ARRA EMW-2009-FC-02867R  
HJN 100017 EA**

**PREPARED FOR:**

**BRIAROAKS VOLUNTEER FIRE DEPARTMENT**

**AND**

**FEDERAL EMERGENCY MANAGEMENT AGENCY**

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**JUNE 2010**

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## 1.0 INTRODUCTION

### 1.1 PROJECT AUTHORITY

The Briaroaks Volunteer Fire Department (VFD) protects an area of 35 square miles and approximately 5000 homes and businesses. Currently operating out of 1 station, the VFD specializes in several areas, such as high/low angle rescue, ACLS, swift water, and haz-mat. The VFD has 7 apparatuses, which consist of 2 Class A Engines, 1 light duty rescue (with full extraction equipment), 2 brush trucks, 1 command vehicle, and a haz-mat/air trailer.

Funding for the new Briaroaks Fire Station (the project) is being requested from the Federal Emergency Management Agency (FEMA). The purpose of this Environmental Assessment (EA) is to comply with FEMA's responsibilities under the National Environmental Policy Act (NEPA), Section 7 of the Endangered Species Act (ESA), and Section 106 of the National Historic Preservation Act (NHPA). This EA is required for purposes of evaluating a project grant application submitted to FEMA by the Briaroaks VFD. The environmental reviews are required under FEMA regulations 44 CFR Part 10 and the Council on Environmental Quality Guidelines 40 CFR Parts 1500 to 1508.

### 1.2 PROJECT LOCATION

The proposed project is located in northeastern Johnson County in North Texas. Johnson County is bounded on the north by Parker and Tarrant counties and the City of Fort Worth; on the east by Ellis County; on the south by Hill County and the Brazos River, which form the border with Bosque County; and on the west by Hood and Somervell counties. Cleburne serves as the county seat to Johnson County with a population of approximately 153,630 citizens.

The proposed project is located approximately 4.5 miles southeast of Burleson, Texas, and consists of the construction of a new fire station along County Road 528 to serve an addition to Briaroaks VFD's service area. More precisely, the proposed addition is located at 8200 County Road 528, north latitude 32.5125 and west longitude 97.2572. The proposed fire station location, as well as the existing service area and proposed expansion service area, are illustrated in Figure 1. Figure 2 shows an aerial photograph of the project area.

### 1.3 NEED AND PURPOSE OF THE PROJECT

#### 1.3.1 Need

In October 2007, a new service area was assigned to Briaroaks VFD in addition to the existing district. The expanded service area was originally protected by the Burleson Fire Department; however, a few years ago, they stopped providing the service and the area was re-annexed into the Johnson County Emergency Services District #1. Briaroaks VFD is the closest county department to most of the new area, and was given responsibility for emergency response to those citizens. As a result, the geographic size and population of the district nearly doubled. The

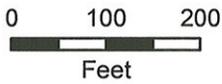




**Legend**

 Property Boundary

MAP SOURCE: USDA, 2007.



**FIGURE 2**

2007 AERIAL PHOTOGRAPH  
BRIAROAKS FIRE STATION  
BURLESON, JOHNSON COUNTY, TEXAS

new service area added about 1,900 homes to the primary response area. In the first full year (2008) of servicing the new district, the department's call volume increased by nearly 50% over 2007. In the structure fire category alone, the department saw a substantial (84%) increase in 2008 from 2007. Most of the increased call volume was attributed to calls originating in the new service area. The response time to this area is hampered by the fact that it is on the other side of a major interstate (Interstate Highway 35 West) from the existing Briaroaks Fire Station and there are only 3 bridges crossing the freeway at 2-mile intervals. Additionally, the main roads through the new area are small, winding country roads that require slower response speeds. Briaroaks has been providing emergency service to this area for nearly two years with an average response time of 23 minutes. By building a fire station in the new area, Briaroaks' response time will be greatly improved. The entirety of the new area will have a response time of less than 5 minutes from the new station. This will be a drastic improvement over current response times and will provide a better opportunity to control fires and administer lifesaving emergency medical care.

### 1.3.2 Purpose

The purpose of the proposed project is to improve emergency response times and services within the expanded service area. Briaroaks VFD is also part of a Battalion Response Plan where multiple departments are dispatched to a structure fire. The proposed new station will be much closer to neighboring districts as well and will speed the response to Battalion responses in other jurisdictions.

## 2.0 **ALTERNATIVES ANALYSIS**

### 2.1 ALTERNATIVE 1: NO-ACTION ALTERNATIVE

The no-action alternative would result in continued excessive emergency response times in the expanded service area with possible losses of property or lives. This alternative does not achieve the stated project purpose of improving emergency response in the expanded service area.

### 2.2 ALTERNATIVE 2: PROPOSED ACTION

The proposed project is the construction of a new fire station that will be a 90-foot-wide-by-60-foot-deep rectangular metal building built on a concrete slab foundation with a brick or stone façade to blend in with the surrounding architecture. The building will be constructed with 3 or 4 apparatus bays on 1 side and the living quarters, kitchen, etc. on the other side. The apparatus bays will each be able to house 1 large engine-type vehicle or 2 smaller brush truck or rescue vehicles. The station will initially be equipped with 1 engine, 1 brush truck, and a small rescue/command vehicle. The driveways to the building will enter from County Road (CR) 528, as that is the only access available. Utilities will be extended to the building from CR 528 and would include electric, water, and telephone. The station will utilize an aerobic septic system due to there being no available sewer service in the area. The station will also use propane for some appliances. Propane will come from an on-site storage tank similar in size to a residential tank.

FEMA funding will only cover the cost to build the fire station and make it suitable for overnight accommodation. The building has a very simple and cost-effective rectangular design. The estimated cost to build the station is approximately \$313,800. This includes the building itself (including foundation, framing, plumbing, electrical, masonry, roof, and interior construction), the PlymoVent system, a fire sprinkler system, appliances, backup generator, and furniture for sleeping quarters and gear storage. The grant does not include land acquisition or any operating expenses. Briaroaks VFD has already purchased the site.

### 2.3 ALTERNATIVES DISMISSED FROM FURTHER CONSIDERATION

Significant technological constraints do not exist for site selection. Logistically, a new site needs to be located within the expanded service area and needs to be sited on a public road. From a cost stand point, the Briaroaks VFD's operations are funded by county taxes that are usually insufficient to fully meet the department's needs. Outlaying significant funds to purchase a site for the new station would be detrimental to the Briaroaks VFD's operations. About 1 1/2 years ago, Briaroaks VFD began working with the residents in the new area to explore building a fire station to service the new district. Briaroaks organized meetings and fundraisers to generate enthusiasm and funding for the project. Briaroaks established a "Fire Station Auxiliary" (FSA) composed of members of the fire department as well as members of the new community to work together on moving the project forward. Through generous donations from the community, local businesses, and large corporations, the FSA raised over \$62,000 for the new station. However, a year-long search for a suitable site within the expanded service area revealed properties that were either too large or too expensive for the Department's limited budget. Finally, a willing landowner was able to offer the Briaroaks VFD the subject parcel, which is a 1-acre portion of a larger tract at a price that was affordable. No other suitable or affordable tracts were found to be available. Therefore, this alternative was dismissed from further consideration.

## 3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

### 3.1 PHYSICAL ENVIRONMENT

#### 3.1.1 Geology, Seismicity, and Soils

A review of existing literature indicates that the proposed project is located in the Grayson Marl and Main Street Limestone Geologic Formation (UT-BEG, 1988). This is a lower cretaceous formation. The Grayson Marl is described as mostly calcareous clay and marl that are blocky and yellowish gray to medium gray. There are some 0.25 to 1.0-foot limestone beds in the upper 1/3 of the formation that are very fine-grained and fossiliferous. The material weathers yellowish brown and forms gentle slopes. Average thickness is 60 to 100 feet, thinning northward.

The Main Street Limestone is a minor component of the formation. It is a medium-grained, chalky, thin-bedded to massive limestone that is yellowish gray and weathers light gray to white. Thickness is 20 to 35 feet and thins northward.

A literature review indicated no known seismic faults on the site or in the nearby area (UT-BEG, 1988). The project site is in an area of low probability for seismic activity (USGS, 2008). In accordance with Executive Order (12699) on consideration of the effects of seismic activity, the project has a very low probability for being susceptible to damage from seismic activity.

The project area is located on 2 soil types, the Gasil fine sandy loam (GfB) and the Silstid loamy fine sand (SfB) (Figure 3) (SCS, 1985). These soils consist of deep, well-drained, gently sloping soils on uplands (SCS, 1985). The Gasil soil is well suited for pasture, crops, urban, recreational, and wildlife uses. The Silstid soil is moderately suited for pasture, crops, recreational, and wildlife uses, while it is well suited for urban uses (SCS, 1985).

#### 3.1.1.1 No-Action Alternative

The no-action alternative would not affect geology, seismicity, or soils.

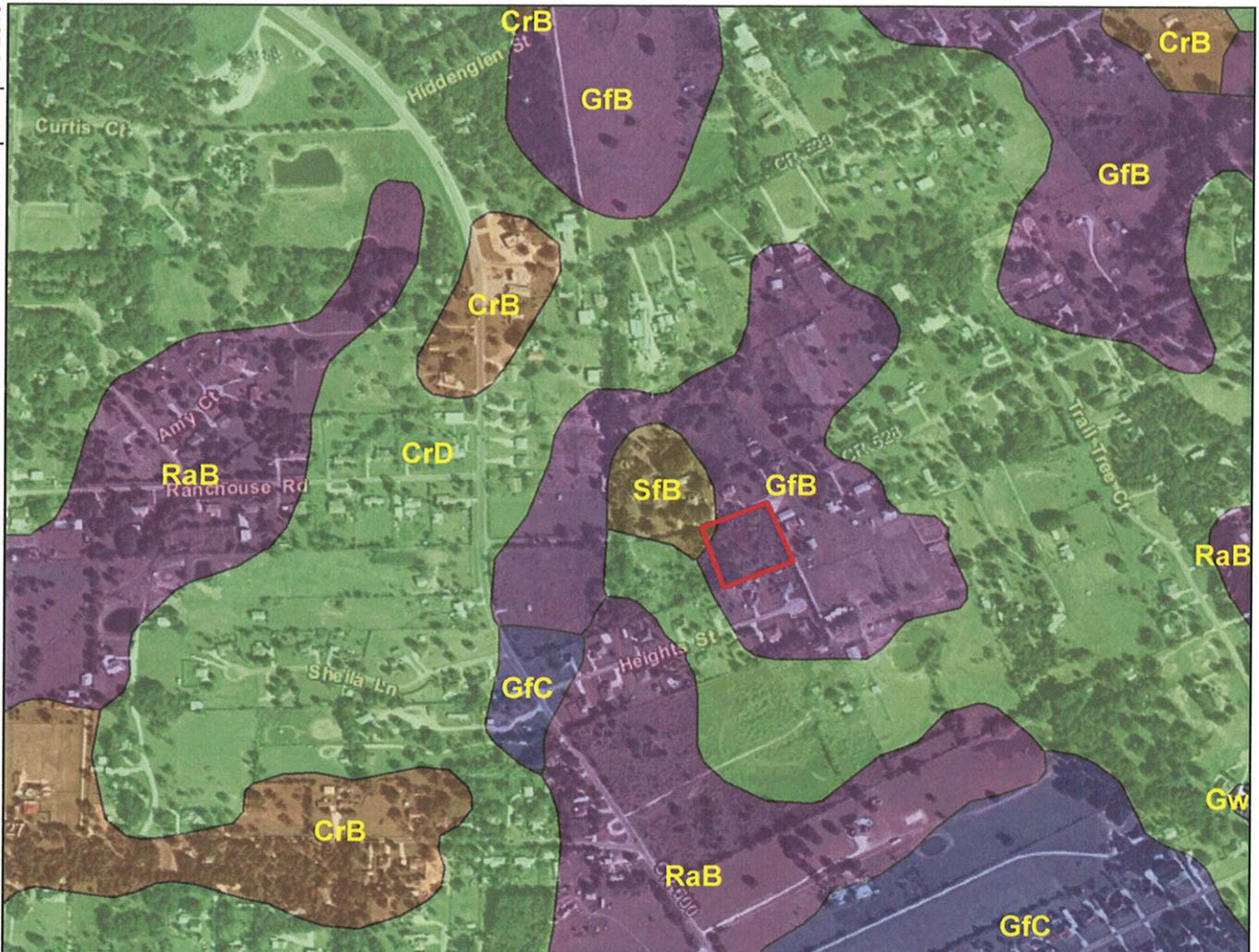
#### 3.1.1.2 Proposed Alternative

The Gasil fine sandy loam soil on the project area is listed as prime farmland soil (SCS, 1985). Less than 1 acre of this soil type will be affected. Primary uses of these soils in the project area are rural residential and pasture. A response to the consultation letter with the NRCS under the Farmland Protection Policy Act (FPPA) (Attachment A-1) is expected in the near future, and this EA will be revised accordingly. It is unlikely that further NRCS consultation will be required.

#### 3.1.2 Water Resources and Water Quality

On-site topography is generally flat to very gradually sloping to the southwest. The site is located in the Trinity River watershed. No water features are present on the site. An ill-defined, ephemeral drainage with a small stock pond is present approximately 600 to 700 feet west of the site.

The site is located over the subcrop of the Trinity Aquifer (TWDB, 2006). The Trinity is a group of geologic deposits divided up into several distinct formations, and each formation is in turn comprised of several layers called members (Eckhart, 2010). In North Texas around Dallas-Fort Worth, the upper formation is the Paluxy. The Twin Mountains formation and the Glen Rose formation also occur in north-central Texas. Water quality in the Trinity Aquifer is generally much lower than in the Edwards, and it is also more variable. For example, in north-central Texas waters in the Glen Rose are highly mineralized and are a source of contamination for wells drilled into the underlying Twin Mountain formation.



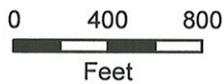
**Legend**

 Property Boundary

**Soils**

-  CrB - Crockett loam, 1 to 3 percent slopes
-  CrD - Crosstell fine sandy loam, 1 to 3 percent slopes
-  GfB - Gasil fine sandy loam, 1 to 3 percent slopes
-  GfC - Gasil fine sandy loam, 3 to 5 percent slopes
-  RaB - Rader fine sandy loam, 0 to 3 percent slopes
-  SfB - Silstid loamy fine sand, , 1 to 3 percent slopes
-  SfD - Silstid loamy fine sand, , 3 to 8 percent slopes

MAP SOURCE: NRCS, 2010.



**FIGURE 3**  
 SOILS MAP  
 BRIAROAKS FIRE STATION  
 BURLESON, JOHNSON COUNTY, TEXAS

Horizon's review of all properly filed water well records at the Texas Water Development Board (TWDB) revealed no documented water wells on the project area. Based on water well drillers' records, nearby water wells draw water from the Trinity Aquifer, which yields water at depths greater than 760 feet in the vicinity of the project area (TWDB, 2010). No evidence of water wells was present in the project site during the field reconnaissance effort. The results of this survey do not preclude the existence of an abandoned well. If a water well or casing is encountered during construction, work should be halted near the feature until the Texas Commission on Environmental Quality (TCEQ) is contacted.

All abandoned wells must be capped or properly abandoned according to the Administrative Rules of the Texas Department of Licensing and Regulation (TDLR), 16 Texas Administrative Code (TAC), Chapter 76, effective 3 January 1999. A plugging report must be submitted (by a licensed water well driller) to the TDLR Water Well Drillers Program, Austin, Texas. If a well is intended for use, it must comply with rules stipulated in 16 TAC §76.

The nearest named receiving stream for the proposed project is Miller Creek, which is a tributary to Village Creek. Neither stream is listed as impaired in the TCEQ Section 303(d) list.

#### 3.1.2.1 No-Action Alternative

The no-action alternative would not be expected to affect water resources or water quality.

#### 3.1.2.2 Proposed Alternative

The proposed project would not materially affect the flow or water quality in Miller Creek or the nearby ephemeral tributary. The impervious cover of the new building and paved drives would increase runoff from the site. However, a heavily vegetated buffer exists between the site and the ephemeral tributary that would act to moderate the increased runoff. The proposed project would not adversely affect freshwater supply canals, sources, or water conservation projects in the region.

A Section 401 (Clean Water Act) Water Quality Certification or a Section 404 (Clean Water Act) permit for the project will not be required since no jurisdictional "waters of the US" are present on the site (see Section 3.2.2 and Attachment A-2).

As less than 1 acre of land disturbance will occur, the project will not be subject to requirements of the Texas Pollutant Discharge Elimination System (TPDES), Construction Storm Water General Permit (TXR 150000).

#### 3.1.3 Floodplain Management (Executive Order 11988)

Executive Order 11988 mandates that all federal agencies shall provide leadership and take action to reduce the risk of flood loss; to minimize the impact of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains in

carrying out their responsibilities for (1) acquiring, managing, and disposing of federal lands and facilities; (2) providing federally undertaken, financed, or assisted construction and improvements; and (3) conducting federal activities and programs affecting land use, including, but not limited to, water and related land resources planning, regulating, and licensing activities.

Before taking an action, each agency shall determine whether the proposed action will occur in a floodplain. For major federal actions significantly affecting the quality of the human environment, the evaluation would be included in any statement prepared under Section 102(2)(C) of the NEPA. The agency shall make a determination of the location of the floodplain based on the best available information.

The subject site is not located within the FEMA 100-year floodplain (Figure 4).

#### 3.1.3.1 No-Action Alternative

The no-action alternative would not adversely affect the 100-year floodplain.

#### 3.1.3.2 Proposed Alternative

The proposed project is not located within a FEMA-designated floodplain and would not result in any negative impacts in the 100- and 500-year floodplains.

#### 3.1.4 Air Resources and Air Quality

Johnson County is located in north central Texas and exhibits a temperate to subtropical climate. The average annual precipitation is 33 inches, and temperature averages range between a winter low of 35° Fahrenheit (F) and a summer high of 96° F. The growing season averages 233 days (Elam, 2010).

Johnson County is part of a 9-county area surrounding the Dallas-Fort Worth Metroplex currently classified by the Environmental Protection Agency (EPA) as a moderate non-attainment air quality area for 8-hour ozone levels. The most detrimental activities for the region's air quality are primarily traffic related.



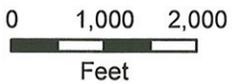
**Legend**

 Property Boundary

**FEMA**

 Zone A - Areas of 100 year flood. No base flood elevations determined.

MAP SOURCE: FEMA, 1999.



**FIGURE 4**  
 FLOOD PLAN MAP  
 BRIAR OAKS FIRE STATION  
 BURLESON, JOHNSON COUNTY, TEXAS

#### 3.1.4.1 No-Action Alternative

The no-action alternative would continue to require the Briaroaks VFD to respond to emergencies within the expanded service area from their existing station. This would result in longer travel distances for emergency vehicles and greater emissions that would contribute to the area's air quality problems.

#### 3.1.4.2 Proposed Alternative

During construction, if dry weather conditions prevailed, fugitive dust emissions could occur from equipment movements and earth-moving activities. Additionally, some minor and temporary exhaust emissions from equipment during construction could also occur. Because the proposed project would significantly shorten emergency response vehicle trips, there would be a minor benefit to the region's air quality.

### 3.2 BIOLOGICAL ENVIRONMENT

#### 3.2.1 Terrestrial and Aquatic Environment

Vegetation in the project area consists mainly of weedy, brushy growth. Vegetation on the site consists mainly of mesquite (*Prosopis glandulosa*), Texas red oak (*Quercus texana*), eastern redcedar (*Juniperus virginiana*), hackberry (*Celtis laevigata*), bois d'arc (*Maclura pomifera*), little bluestem (*Schizachyrium scoparium*), greenbrier (*Smilax bona-nox*), dewberry (*Rubus trivialis*), common ragweed (*Ambrosia sp.*), and broomweed (*Amphiachyris dracunculoides*). No wetland vegetation was observed on or around the subject site. Attachment B provides representative on-site photographs.

##### 3.2.1.1 No-Action Alternative

The no-action alternative would continue to require the Briaroaks VFD to respond to emergencies within the expanded service area from their existing station with long response times. In the case of range and brush fires in the expanded service area, this would allow greater areas to be burned with resulting changes in vegetation and cover.

##### 3.2.1.2 Proposed Alternative

Construction on the site would affect less than 1 acre of brushy, weedy vegetation. The significantly shorter response times from the new station would allow for quicker control of range and brush fires with less area adversely affected.

Letters requesting information and comments from various resource agencies, such as the US Fish and Wildlife Service (USFWS), Texas Parks and Wildlife Department (TPWD), TCEQ, and the General Land Office of Texas (GLO) are provided in Attachment A. Responses from those agencies will be included in the final EA.

### 3.2.2 Threatened or Endangered Species

Federally listed threatened or endangered (T/E) species of known or possible occurrence in Johnson County include the black-capped vireo (*Vireo atricapilla*), golden-cheeked warbler (*Dendroica chrysoparia*), gray wolf (*Canis lupus*), and red wolf (*Canis rufus*) (USFWS, 2010) (Attachment C).

Additionally, the USFWS lists the following migratory bird species as being of potential occurrence in many or all Texas counties: Eskimo curlew (*Numenius borealis*), interior least tern (*Sterna antillarum athalassos*), and whooping crane (*Grus americana*).

Two fish species are federally listed as candidates for listing, the sharpnose shiner (*Notropis oxyrhynchus*) and the smalleye shiner (*Notropis buccula*).

#### Black-Capped Vireo

The black-capped vireo is found largely in oak-juniper woodlands or short, dense brushy habitats with a distinctive patchy, 2-layered aspect. Shrub and tree layers are typically patchy with open, grassy spaces. The vireo requires foliage reaching to ground level for nesting cover. None have been reported from the project area, and no suitable habitat is present.

#### Golden-Cheeked Warbler

Golden-cheeked warbler habitat in Texas consists of dense to moderate canopy, generally mature juniper-oak woodlands. The warbler is dependent on Ashe juniper for long fine bark strips available from mature trees that is used in nest construction. The warblers forage for insects in broad-leaved trees and shrubs. None have been reported from the project area, and no suitable habitat is present.

#### Interior Least Tern

The interior least tern nests along sand and gravel bars within braided streams and rivers; it is also known to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc). Due to the lack of environments suitable for this species within the project area, there would be no effect on this species as a result of the proposed project.

#### Eskimo Curlew

The Eskimo curlew has warm brown feathers with white speckles. Cinnamon-colored feathers line the undersides of their wings. They have long, dark green, dark brown, or dark grey-blue legs and are about 12 inches in length. Arctic tundra and open grasslands provide habitat for Eskimo curlews. Eskimo curlews migrate from breeding grounds in the Arctic tundra through the North American prairies crossing through Texas to wintering grounds on the Pampas grasslands of Argentina. None have been reported from the project area, and no suitable habitat is present.

### Whooping Crane

The whooping crane is North America's tallest bird, with a standing height of 5 feet or more. The bird is a large white crane with a dagger-like yellow bill, with reddish skin on the crown that is darker on the face and lower part of the beak. In Texas, whooping cranes winter at Aransas National Wildlife Refuge and Matagorda and St. Joseph's islands in Aransas, Calhoun, and Matagorda counties. The project area is in the path of migration for the whooping cranes during their 2600-mile flight each spring (late March to late April) and fall (mid-October to late November). This species is not known to breed in the project area and would only be an incidental visitor during migration. None have been reported from the project area, and no suitable habitat is present.

### Gray Wolf

The gray wolf is considered extirpated in Texas but was formerly found throughout the western 2/3 of the state in forests, brushlands or grasslands.

### Red Wolf

The red wolf is considered extirpated in Texas but was formerly found throughout the eastern half of Texas in brushy and forested areas, as well as coastal prairies.

### Sharpnose Shiner

The sharpnose shiner is endemic to the Brazos River drainage and possibly introduced into the adjacent Colorado River drainage. Its habitat includes large turbid rivers with bottom characteristics including a combination of sand, gravel, and clay-mud. The subject site does not contain any aquatic habitat and is not within the Brazos or Colorado River drainages. The sharpnose shiner would not be affected by the proposed project.

### Smalleye Shiner

The smalleye shiner is endemic to the upper Brazos River system and its tributaries (Clear Fork and Bosque) and is also apparently introduced into the adjacent Colorado River drainage. Its habitat includes medium to large prairie streams with sandy substrate and turbid to clear warm water. The subject site does not contain any aquatic habitat and is not within the Brazos or Colorado River drainages. The smalleye shiner would not be affected by the proposed project.

#### 3.2.3.1 No-Action Alternative

No listed species or their supporting habitats are present in the project area; therefore, the no-action alternative will not affect listed species.

#### 3.2.3.2 Proposed Alternative

Based on a review of the species, habitat requirements, and the scope of the proposed project, FEMA has determined that the proposed alternative would not affect listed species.

### 3.2.3 Wetlands (Executive Order 11990)

Executive Order 11990 provides that, in order to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative, all federal agencies shall provide leadership and shall take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for (1) acquiring, managing, and disposing of federal lands and facilities; (2) providing federally undertaken, financed, or assisted construction and improvements; and (3) conducting federal activities and programs affecting land use, including, but not limited to, water and related land resources planning, regulating, and licensing activities. This Order does not apply to the issuance by federal agencies of permits, licenses, or allocations to private parties for activities involving wetlands on non-federal property.

According to the Burleson, Texas National Wetland Inventory (NWI) map (USFWS, 1992), no potential areas of concern are mapped within the proposed project site. The field reconnaissance revealed the site to be of upland character with no wetlands or "waters of the US."

#### 3.2.2.1 No-Action Alternative

The no-action alternative would not be expected to directly affect wetlands or "waters of the US." However, this alternative would continue to require the Briaroaks VFD to respond to emergencies within the expanded service area from their existing station with long response times. In the case of haz-mat spills, the potential would exist for greater probabilities of pollution for receiving streams and habitats.

#### 3.2.2.2 Proposed Alternative

No wetlands or waters of the US are present on the site; therefore, none would be adversely affected. Significantly reduced response times for emergency response vehicles and personnel to haz-mat spills would reduce the probabilities for significant pollution of receiving streams and habitats.

### 3.3 HAZARDOUS MATERIALS

Horizon commissioned TelALL Phase I Support Services, Inc. (TelALL) to provide an environmental database review of selected state and federal agency records. TelALL conducted the database search for the subject site using minimum search distances outlined in the American Society for Testing and Materials (ASTM) Standards E-1527-05 (ASTM, 2006). Table 1 shows the number of known occurrences for each category as of February 2010 for the new Briaroaks Fire Station site.

**TABLE 1  
TELALL AGENCY DATABASE REPORT FINDINGS  
GREEN POND GULLY DRAINAGE IMPROVEMENTS PROJECT**

| DATABASE  | ACRONYM  | LAST UPDATED | MINIMUM SEARCH DISTANCE IN MILES | FINDINGS |
|---|----------|--------------|----------------------------------|----------|
| National Priority List  | NPL      | 12/1/2009    | 1.0                              | 0        |
| Comprehensive Environmental Response, Compensation, and Liability Information System        | CERCLIS  | 12/1/2009    | 0.5                              | 0        |
| No Further Remedial Action Planned  | NFRAP    | 12/1/2009    | 0.5                              | 0        |
| Resource Conservation and Recovery Act Information System - Treatment, Storage, or Disposal | RCRA-TSD | 1/1/2010     | 1.0                              | 0        |
| Corrective Action   | CORRACT  | 1/1/2010     | 1.0                              | 0        |
| Resource Conservation and Recovery Act Information System - Generators                      | RCRA-G   | 1/1/2010     | 0.25                             | 0        |
| Emergency Response Notification System  | ERNS     | 11/1/2009    | 0.25                             | 0        |
| Texas Voluntary Cleanup Program   | TXVCP    | 1/1/2010     | 0.5                              | 0        |
| Innocent Owner/Operator Program   | TXIOP    | 1/1/2010     | 0.5                              | 0        |
| Texas State Superfund   | TXSSF    | 11/1/2009    | 1.0                              | 0        |
| TCEQ Solid Waste Facilities   | TXLF     | 12/1/2009    | 1.0                              | 0        |
| Unauthorized and Unpermitted Landfill Sites   | LFUN     | 12/1/2009    | 0.5                              | 2        |
| Leaking Underground Storage Tanks   | TXLUST   | 11/1/2009    | 0.5                              | 0        |
| Texas Underground Storage Tanks   | TXUST    | 11/1/2009    | 0.25                             | 0        |
| Texas Aboveground Storage Tanks   | TXAST    | 11/1/2009    | 0.25                             | 0        |
| Texas Spills List   | TXSPILL  | 12/1/2009    | 0.25                             | 0        |
| Brownfield  | BRNFD    | 1/1/2010     | 0.5                              | 0        |
| Dry Cleaner   | DRYC     | 11/1/2009    | 0.5                              | 0        |
| Indian Reservation Underground Storage Tanks  | IRUST    | 11/1/2009    | 0.25                             | 0        |

The details of the agency database search are provided in Attachment D. Based on the findings more fully discussed below, the new Briaroaks Fire Station site has a low probability for the occurrence of any contamination or recognized environmental conditions. Any hazardous or potentially hazardous materials discovered, generated, or used during construction of the project would be disposed of and handled by the Applicant in accordance with applicable local, state, and federal regulations.

### 3.3.1 National Priority List (NPL) Database

The National Priority List (NPL) is a priority subset of the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list and contains those CERCLIS facilities or locations evaluated and confirmed as contaminated. The CERCLIS list was created by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in order to fulfill the need to track contaminated sites. The CERCLA was enacted in 1980 and amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986. These acts established broad authority for the government to respond to problems posed by the release, or threat of release, of hazardous substances, pollutants, or contaminants. The CERCLA also imposed liability on those responsible for releases and provided the authority for the government to undertake enforcement and abatement action against responsible parties. TelALL identified no NPL facilities on or within a 1.0-mile radius of the subject site.

### 3.3.2 Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) Database

This database lists facilities reported to and identified by the EPA, pursuant to Section 103 of the CERCLA. The CERCLIS database contains sites that are either proposed to be listed or are listed on the NPL and sites that are in the screening and assessment phase for possible inclusion on the NPL. These sites are known to, or have the potential to, release hazardous substances or pollutants into the environment. TelALL identified no CERCLIS hazardous waste sites on or within a 0.5-mile radius of the subject site. No further remedial action planned (NFRAP) sites indicate a CERCLIS site that was designated as a site that required no further agency action by the EPA. TelALL identified no NFRAP sites within a 0.5-mile radius of the subject site.

### 3.3.3 Resource Conservation and Recovery Information System (RCRIS) Database

TelALL derived the data contained in this list from the Resource Conservation and Recovery Information System (RCRIS) database, which attempts to track the status of those regulated under the Resource Conservation and Recovery Act (RCRA). RCRA requires generators, transporters, treaters, storers, and disposers of hazardous waste to provide information concerning their activities to state environmental agencies, who, in turn, provide the information to regional and national EPA offices. The RCRA Treatment, Storage, or Disposal (RCRA-TSD) database is a subset of the RCRIS list that tracks facilities that fall under the treatment, storage, or disposal classification. TelALL reviewed the RCRA-TSD database for those facilities where treatment, storage, or disposal of hazardous waste takes place and found no RCRA-TSD facilities on or within a 1.0-mile radius of the Property.

The Corrective Action (CORRACT) database lists RCRIS sites that are currently subject to or have in the past been subject to corrective action. No facilities are listed as RCRIS violators that have been subject to corrective action on or within a 1.0-mile radius of the Property.

The RCRA Generators (RCRA-G) database is a subset of the RCRIS list that tracks facilities that generate or transport either small or large quantities of substances regulated under the RCRA. The RCRA classifies 3 generators, including conditionally exempt, small-quantity generators (CESQGs); small-quantity generators (SQGs); and large-quantity generators (LQGs). The CESQG produces less than 100 kilograms (kg) per month of hazardous waste; the SQG produces at least 100 kg per month, but less than 1,000 kg per month, of hazardous waste; and the LQG produces at least 1,000 kg per month of hazardous waste. TelALL reviewed the RCRA-G database and found no facilities within a 0.25-mile radius of the subject site.

#### 3.3.4 Emergency Response Notification System (ERNS) Database

The Emergency Response Notification System (ERNS) supports the release of notification requirements of Section 103 of the CERCLA, as amended; Section 311 of the Clean Water Act; and Sections 300.51 and 300.65 of the National Oil and Hazardous Substances Contingency Plan. Additionally, ERNS serves as a mechanism to document and verify incident location information as initially reported, and is utilized as a direct source of easily accessible data needed for analyzing oil and hazardous substances spills. TelALL reviewed the ERNS database and identified no oil or hazardous substance releases within 0.25 miles of the subject site.

#### 3.3.5 Texas Voluntary Cleanup Program (TXVCP) and the Texas Innocent Owner/Operator Program (TXIOP)

The Texas Voluntary Cleanup Program (TXVCP) was established to provide administrative, technical, and legal incentives to encourage the cleanup of contaminated sites in Texas. Since future lenders and landowners receive protection from liability to the State of Texas for cleanup of sites under the TXVCP, most of the constraints for completing real estate transactions at those sites are eliminated. As a result, many unused or under-used properties may be restored to economically productive or community-beneficial uses.

After cleanup, the parties receive a certificate of completion from the TCEQ, which states that all lenders and future landowners who are not potentially responsible parties (PRPs) are released from all liability to the State. TelALL identified no TXVCP participants on or within a 0.5-mile radius of the subject site.

The Texas Innocent Owner/Operator Program (TXIOP) provides a certificate to an innocent owner or operator if his or her property is contaminated as a result of a release or migration of contaminants from a source or sources not located on the subject site and he or she did not cause or contribute to the source or sources of contamination. TelALL identified no TXIOP participants on or within a 0.5-mile radius of the subject site.

### 3.3.6 Texas State Superfund Database

The Texas State Superfund (TXSSF) database is a list of sites that the State of Texas has identified for investigation or remediation. The TXSSF sites are reviewed for potential upgrading to CERCLIS status by the EPA. TelALL identified no state or federal Superfund sites on or within a 1.0-mile radius of the subject site.

### 3.3.7 TCEQ Solid Waste Facilities and Unauthorized and Unpermitted Landfill (LFUN) Sites

The TCEQ Solid Waste Facilities (TXLF) listing, derived from the permit files of the TCEQ, contains known active and inactive solid waste disposal, transfer, and processing stations registered within a municipality and/or county. Subchapter R of Chapter 361 of the State of Texas Health and Safety Code regulates land use on sites determined to be, or contain, solid waste landfills. Based on the review of all available information developed during this Environmental Assessment, Horizon found no evidence that suggests that a municipal solid waste landfill exists on or within a 1.0-mile radius of the subject site. Therefore, the site would not be subject to this regulation.

Unauthorized and Unpermitted Landfill (LFUN) sites have no permit and are considered abandoned. All information about these sites was compiled by Texas State University San Marcos (formerly Southwest Texas State University) under contract with the TCEQ.

TelALL identified 2 LFUN sites within a 0.5-mile radius of the project area. The James T. Hallmark site is described as being 0.2 miles west of the intersection of County Road 528 and County Road 608, on the north side of County Road 528, Johnson County, Texas. North Central Texas Council of Government (NCTCOG) records revealed that this LFUN site is approximately 2 miles east of the project area and therefore outside the search radius. The Dorris Gray site is described as being 0.5 miles south of the intersection of County Road 528 and County Road 600, on the east side of County Road 600, Johnson County, Texas. Dorris Gray is listed as the owner, with no PRP listed. The site consists of approximately 3 acres, containing household waste, construction demolition materials, and tires. The approximate date of last use was 1991. No information was available through NCTCOG records.

Based on available information, these sites do not represent any significant environmental concerns for the subject site.

### 3.3.8 Underground or Aboveground Storage Tanks

TelALL reviewed the TCEQ database listings that contain information on permitted Texas Underground Storage Tanks (TXUSTs), permitted Texas Aboveground Storage Tanks (TXASTs), and known Texas Leaking Underground Storage Tanks (TXLUSTs). According to TCEQ records, no TXAST facilities were identified on or within a 0.25-mile radius of the subject site. No TXLUST facilities were identified on or within a 0.5-mile radius of the subject site. No TXUST facilities were identified within a 0.25-mile radius of the subject site.

### 3.3.9 TCEQ Spills List

The TCEQ tracks cases where emergency response is needed for cleanup of hazardous or potentially hazardous substances spills (TXSPILL). TelALL identified no TXSPILL cases within 0.25 miles of the subject site.

### 3.3.10 Brownfields

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. According to TCEQ records, no Brownfields are located within 0.5 miles of the subject site.

### 3.3.11 Dry Cleaners

House Bill 1366 requires all dry cleaning (DRYC) drop stations and facilities in Texas to register with the TCEQ and implement new performance standards at their facilities as appropriate. It also requires distributors of dry cleaning solvents to collect fees on the sale of dry cleaning solvents at certain facilities. TelALL identified no DRYC facilities within 0.5 miles of the subject site.

### 3.3.12 Indian Reservation Underground Storage Tanks

Permitted underground storage tanks on Indian land are tracked and maintained by the EPA. TelALL identified no Indian reservation underground storage tank sites on or within a 0.25-mile radius of the subject site.

### 3.3.13 No-Action Alternative

This alternative would continue to require the Briaroaks VFD to respond to emergencies within the expanded service area from their existing station with long response times. In the case of haz-mat spills, the potential would exist for greater probabilities of pollution.

### 3.3.14 Proposed Alternative

No hazardous materials or sources were identified that would adversely affect the proposed project or be released into the environment as a result of implementation of the project. Significantly reduced response times for emergency response vehicles and personnel to haz-mat spills would reduce the probabilities for significant pollution.

## 3.4 SOCIOECONOMICS

According to the 2000 US Census, the Johnson County area had a population of 126,811. A demographic profile of the area shows that approximately 90% of the population is reported as white, 2.5% as black, 12.12% as Hispanic, 0.64% Native American, and about 6.85% as other.

The average household size was 2.85 people and the average family size was 3.2 people. The median household income was reported as \$44,621. About 6.9% of families and 8.8% of the population were below the poverty level.

#### 3.4.1 Zoning and Land Use

Portions of the project area are within the jurisdictions of Briaroaks and Burluson. The remainder of the area is within the jurisdiction of Johnson County. Land use of the area is largely rural residential. A few urban subdivisions exist and scattered commercial properties are present along IH 35. There are no zoning regulations in effect for the proposed site.

#### 3.4.2 Visual Resources

The area surrounding the proposed new station is largely rural residential with numerous outbuildings. The fire station would have a similar appearance and would include a front facade similar to local architecture to better blend with the area.

#### 3.4.3 Noise

The project location is currently rural residential. Existing noise is generally generated by traffic on local county roads and by activities of local residents. Ambient noise levels measured on the site and in the vicinity averaged about 50 decibels (db). Passing cars on nearby streets generate sound levels of 60 to 75 db. Construction equipment operating in this area could generate temporary increases in ambient noise levels near these receptors. Emergency equipment associated with the new station would periodically generate higher noise levels that would be a momentary spike.

#### 3.4.4 Public Services and Utilities

The proposed project is not expected to impede the access of nearby residents to any public services and will in fact significantly improve public emergency response times for the area. Power and water utilities are available on the project site and in the vicinity. No centralized sewer system is present, and local development utilizes septic systems. No oil and gas wells or pipelines are present in the immediate vicinity. The Applicant will need to acquire a building permit and a septic permit prior to site construction.

#### 3.4.5 Traffic and Circulation

With the exception of IH 35, traffic circulation in the area is provided largely by county roads.

3.4.6 Environmental Justice (Executive Order 12898)

By necessity, the proposed project is located in the vicinity of the area for which it is designed to provide enhanced emergency response and protection. The area surrounding the proposed fire station is generally moderate-income residential.

3.4.7 Safety and Security

The expanded service area has been left without efficient emergency response for the past 2 years. The currently excessive emergency response times result in a public safety concern.

3.4.8 No-Action Alternative

The no-action alternative will not provide relief of concerns for property, health, and public welfare protection during emergency situations. Continued emergency response from the existing fire station would not be expected to affect land use, demographics, socioeconomics, noise, visual resources, or environmental justice. However, public services, traffic and circulation, and safety would continue to be impaired due to excessive emergency response times from the existing fire station to areas east of Interstate Highway 35.

3.4.9 Proposed Alternative

The proposed project would not significantly affect or change current land use. Less than 1 acre of currently undeveloped land would be converted to developed. The new fire station would be constructed in a similar architecture to surrounding buildings. Visual resources (aesthetics) are not expected to be affected. The only anticipated significant noises associated with the project would be due to heavy equipment operation during the construction phase and during emergency responses requiring sirens. These would be temporary increases in noise. The project will not adversely affect demographics, socioeconomics, or traffic circulation. The location of the station will not adversely affect low-income properties of persons. The project is designed to enhance safety and emergency response in the expanded service area.

3.4.10 Alternate Location Alternative

While a specific alternate location has not been identified, any location within the expanded service area would be expected to have similar impacts, or the lack thereof, to the proposed action.

3.5 CULTURAL RESOURCES

To assess the potential for intact, significant cultural resources within the Area of Potential Effect (APE) of the proposed new Briaroaks VFD fire station, Horizon conducted a review of available records and information on historic properties in the proposed area. The archival review consisted of a review of existing maps and records.

### 3.5.1 Archival Research and Field Reconnaissance

Archival research conducted via the Internet at the Texas Historical Commission's (THC) *Texas Archeological Sites Atlas* web site indicated that no previous cultural resource investigations have been conducted and no previously documented cultural resource properties have been recorded within a 1-mile radius of the APE (THC, 2010). No recorded sites, including those listed in the National Register of Historic Places (NRHP) or designated as State Archeological Landmarks (SALs), occur within or in the vicinity of the APE. According to the *Atlas*, no formal cultural resources surveys have been undertaken within the boundaries of the APE.

A field reconnaissance by Horizon personnel failed to identify any standing structures or historic debris.

Prehistoric archeological sites are commonly found in upland areas and alluvial terraces near stream/river channels or drainages. Based on the fact that the project area is not located near any extant water sources, it is Horizon's opinion that there is generally a low potential for intact prehistoric deposits within the subject site.

### 3.5.2 No-Action Alternative

The no-action alternative would have no effects on cultural resources.

### 3.5.3 Proposed Alternative

Based on the negative results of the archival investigations, it is Horizon's opinion that no significant cultural resources would be affected by the proposed undertaking. Horizon has completed consultation with the THC, which serves as the State Historic Preservation Office (SHPO) for Texas, regarding its findings. The THC concurred with Horizon's findings that the proposed project would have no effect on historic properties and cleared the project to proceed. A copy of Horizon's consultation letter with the THC's concurrence stamp is provided in Attachment A-7.

## 4.0 CUMULATIVE IMPACTS

An assessment of cumulative impacts takes into consideration the consequences that past, present, and reasonably foreseeable future projects have had, have, or will have on an ecosystem. Every project must be considered on its own merits. However, its impacts on the environment must be assessed in light of historical activity, along with anticipated future activities in the area. Although a particular project may constitute a minor impact in itself, the cumulative impacts that result from a large number of such projects could cause significant impairment of natural resources.

Cumulative impacts can result from many different activities, including the introduction of materials into the environment from multiple sources, repeated removal of materials or organisms

from the environment, and repeated environmental changes over large areas and long periods. More complicated cumulative effects occur when stresses of different types combine to produce a single effect or accumulation of effects. Large, contiguous habitats can become fragmented, making it difficult for organisms to locate and maintain populations between disjunctive habitat fragments. Cumulative impacts may also occur when the timing of perturbations are so closely spaced that their effects overlap.

#### 4.1 NO-ACTION ALTERNATIVE

The no-action alternative would have the potential to contribute to cumulative effects in a number of areas due largely to the longer travel distances and times for response to emergency situations in the expanded service area. Air quality would be affected by higher emissions from emergency equipment travelling longer distances and time. Vegetation resources could be adversely affected by the longer response times to wild fires in the expanded service area. Wetlands and "waters of the US" could be adversely affected by the longer response times to haz-mat spills in the expanded service area that could pollute water resources. Public safety, public services, and traffic circulation could also be adversely affected by the long response times to emergencies in the expanded service area. These effects would add cumulatively to other effects from other unrelated actions in the region including the ongoing increase in land development, traffic, and population growth.

#### 4.2 PROPOSED ALTERNATIVE

The primary purpose of the proposed project is to reduce emergency response times to existing development in the expanded service area. The project is not intended to provide for increased development potential in the area. Therefore, it is not expected that this project will lead to other significant secondary impacts. However, Johnson County has been experiencing increased land development, primarily residential, over the past several decades. This trend is expected to continue irrespective of the proposed project.

The proposed project will have minimal impacts to natural resources. Less than 1 acre of vegetation and prime farmland soils will be converted to developed area. These impacts are of such minor extent as to not add materially to cumulative impacts in the region.

The project will have benefits due largely to the shorter travel distances and response times to emergency situations in the expanded service area. Minor benefits will be realized for air quality, vegetation resources, water quality, "waters of the US," public safety, traffic circulation, and public services.

### 5.0 PUBLIC PARTICIPATION

On March 8th, 2010, at 6:30 PM, a public forum was held at the Briaroaks Fire Station located at 515 Ward Lane, Burleson, Texas, 76028. Invitation letters were sent to all residences located in the vicinity of 8200 CR 528 (the proposed future site of the new Briaroaks station). Twelve residents from the area were present at the meeting (see Attachment E). Chief Bryan

Jamison presented information concerning the proposed project to the attendees and solicited input regarding any environmental or other concerns they might have. Information was provided concerning the construction project and possible impacts, including noise and traffic to the local area. There were very few concerns and none were related to possible increased noise from emergency vehicles. Residents were more concerned with the safety of firefighters and advised the department of 2 roadway curves in the area with limited sight distance. The citizens were advised that Briaroaks VFD were aware of the curves and had already begun talks with the county commissioner for Precinct 3 about putting up additional warning signs of approaching fire trucks. Overall, the residents were supportive of a new fire station being built near their homes.

A Notice of Availability of the Draft Environmental Assessment will be published in the local newspaper(s) requesting public comments.

## **6.0 MITIGATION MEASURES**

Mitigation measures deemed necessary for the project to further minimize impacts include watering of construction areas for dust suppression during dry periods and timing of construction activities during the daylight hours for noise abatement. Construction barrier fencing will also be installed around the construction zone to enhance safety.

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 and access to the sensitive area restricted. The applicant will inform FEMA immediately and FEMA will consult with the SHPO or THPO and Tribes and work in sensitive areas cannot resume until consultation is completed and appropriate measures have been taken to ensure that the project is in compliance with the National Historic Preservation Act.

Briaroaks VFD will obtain all appropriate local, state, and federal permits for the proposed undertaking prior to project implementation.

## **7.0 CONSULTATIONS**

Horizon has sent letters of request for information or concurrence from resource agencies such as the USFWS, TPWD, TCEQ, GLO, NRCS, USACE, and the THC. Responses to those request letters are included in Attachment A.

## **8.0 CONCLUSIONS**

### **8.1 NO-ACTION ALTERNATIVE**

This alternative would not achieve the project's main purpose of reducing emergency response times in the expanded service area for the benefit of the safety and welfare of the public and has been rejected.

## 8.2 PROPOSED ALTERNATIVE

The proposed project will have minimal impacts to natural resources. Less than 1 acre of vegetation and prime farmland soils will be converted to developed area. The project will have benefits due largely to the shorter travel distances and response times to emergency situations in the expanded service area. Minor benefits will be realized for air quality, vegetation resources, water quality, "waters of the US," public safety, traffic circulation, and public services. The project will not contribute materially to area or regional cumulative impacts. A summary of environmental consequences and proposed mitigation measures is provided in Table 2.

**TABLE 2  
SUMMARY OF ENVIRONMENTAL CONSEQUENCES  
AND MITIGATION MEASURES FOR THE  
PROPOSED NEW BRIARROAKS VFD FIRE STATION**

| RESOURCE                            | ANTICIPATED EFFECTS  | MITIGATION MEASURES  |
|-------------------------------------|--|--|
| Geology, Seismicity, and Soils      | Geology – no impacts<br>Seismicity – no impacts<br>Soils – <1 acre of prime or unique farmland will be converted to non-agricultural use. The NRCS will determine if this impact is significant. | No mitigation measures proposed  |
| Water Resources and Water Quality   | Groundwater – no impacts<br>Surface water quality – minor additional runoff<br>Developed water resources – no impacts  | No mitigation measures proposed  |
| Floodplains                         | 100-year floodplain – no impacts   | No mitigation measures proposed  |
| Air Quality                         | Fugitive dust emissions – temporary increase during construction   | Fugitive dust – watering of work areas during dry periods                            |
| Terrestrial and Aquatic Environment | Less than 1 acre of weedy vegetation to be converted to development  | No mitigation measures proposed  |
| Wetlands                            | “Waters of the US” – no impacts  | No mitigation measures proposed  |
| Threatened or Endangered Species    | No species or habitat impacts  | No mitigation measures proposed  |
| Hazardous Materials                 | No hazardous materials concerns identified   | No mitigation measures proposed  |
| Land Use                            | Less than 1 acre of undeveloped land to be converted to development  | No mitigation measures proposed  |
| Visual Resources                    | No significant alterations – the new fire station will be of commensurate appearance to existing residences and structures in the area.  | No mitigation measures proposed  |
| Noise                               | Temporary construction equipment noise   | Construction will be timed to occur during daylight hours                            |
| Public Services/Utilities           | Public services – no impacts<br>Utilities – no impacts<br>Pipelines – no impacts   | No mitigation measures proposed  |
| Traffic                             | Short-duration traffic interruptions during emergency response operations  | No mitigation measures proposed  |
| Environmental Justice               | No impacts   | No mitigation measures proposed  |
| Safety/Security                     | Significant improvements for the expanded service area   | No mitigation measures proposed  |
| Cultural Resources                  | No significant cultural resources present – no impacts   | No mitigation measures proposed – See Inadvertent Discovery Statement in Section 6.0 |

## 9.0 LIST OF PREPARERS

C. Lee Sherrod, Vice President, Senior Biologist, Horizon Environmental Services, Inc.

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