

Draft Environmental Assessment  
**Proposed Theodore Fire  
Station**

Section 10, Township 6 South, Range 2 West  
Mobile County, Theodore, Alabama

EMW-2009-FC-02117

*June 2011*

*DRAFT*  
Environmental Assessment

For:

Proposed Theodore Fire Station  
Section 10, Township 6 South, Range 2 West  
Mobile County  
Theodore, Alabama

Application Number  
**EMW-2009-FC-02117**

Prepared for:  
Federal Emergency Management Agency

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## LIST OF ACRONYMS

<b>AFG</b>	<b>Assistance for Firefighters Grant</b>
<b>ASTM</b>	<b>American Society for Testing and Materials</b>
<b>BMP</b>	<b>Best Management Practices</b>
<b>CERCLIS</b>	<b>Comprehensive Environmental Response, Compensation and Liability Information System</b>
<b>CFR</b>	<b>Code of Federal Regulations</b>
<b>CWA</b>	<b>Clean Water Act</b>
<b>EA</b>	<b>Environmental Assessment</b>
<b>EIS</b>	<b>Environmental Impact Statement</b>
<b>EPA</b>	<b>Environmental Protection Agency</b>
<b>ERNS</b>	<b>Emergency Response Notification System</b>
<b>ESA</b>	<b>Endangered Species Act</b>
<b>FEMA</b>	<b>Federal Emergency Management Agency</b>
<b>FIRM</b>	<b>Flood Insurance Rate Map</b>
<b>FONSI</b>	<b>Finding of No Significant Impact</b>
<b>FPPA</b>	<b>Farmland Protection Policy Act</b>
<b>GIS</b>	<b>Geographic Information System</b>
<b>GSA</b>	<b>Geological Survey of Alabama</b>
<b>ISO</b>	<b>Insurance Services Office, Inc.</b>
<b>LUST</b>	<b>Leaking Underground Storage Tank</b>
<b>NAAQS</b>	<b>National Ambient Air Quality Standards</b>
<b>NEPA</b>	<b>National Environmental Protection Agency</b>
<b>NHPA</b>	<b>National Historic Preservation Act</b>
<b>NPL</b>	<b>National Priorities List</b>
<b>PPM</b>	<b>PPM Consultants, Inc.</b>
<b>RUST</b>	<b>Registered Underground Storage Tank</b>
<b>NRCS</b>	<b>Natural Resource Conservation Service</b>
<b>RCRA</b>	<b>Resource Conservation and Recovery Act</b>
<b>SHPO</b>	<b>State Historic Preservation Officer</b>
<b>TSD</b>	<b>Treatment, Storage, or Disposal</b>
<b>UA</b>	<b>Urbanized Area</b>
<b>USACE</b>	<b>United States Army Corps of Engineers</b>
<b>USEPA</b>	<b>United States Environmental Protection Agency</b>
<b>USFWS</b>	<b>United States Fish and Wildlife Service</b>
<b>USGS</b>	<b>United States Geological Survey</b>
<b>UST</b>	<b>Underground Storage Tank</b>
<b>WSS</b>	<b>Web Soil Survey</b>

## **1.0 INTRODUCTION**

The City of Mobile Fire and Rescue Department applied for and was awarded funding under Federal Emergency Management Agency's (FEMA) Assistance for Firefighters Grant (AFG) for the purpose of constructing a Fire Station near the intersection of Old Military Road and Bellingrath Road in Theodore, Alabama. This Draft Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the President's Council on Environmental Quality regulations to implement NEPA (40 Code of Federal Regulations 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 Draft EA is to analyze the potential environmental impacts of the proposed project. FEMA will use the findings in this Draft EA to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

## **2.0 PURPOSE AND NEED**

The primary goal of the AFG is to meet the firefighting and emergency response needs of fire departments and nonaffiliated emergency medical service organizations.

The Community of Theodore was recently annexed into the City of Mobile. Prior to annexation, the community relied on volunteer fire departments located physically outside the area that was annexed. Now that the area is within the city limits of Mobile, state law requires the City of Mobile to provide all emergency services to this area. The City of Mobile Fire and Rescue Department operates twenty Fire and Rescue Stations throughout the Mobile area, none of which are in the recently annexed Theodore Community. The citizens of this area presently do not have reliable Fire and Rescue response times. In turn, the City of Mobile Fire and Rescue Department applied for a grant from the FEMA's AFG without which the emergency response need of the Theodore Community could not be achieved.

The building of the fire station at the Proposed Location is a step in the direction of providing a higher level of response reliability for our community. The reason for choosing Proposed Location for the station is twofold (1) Mobile Fire Rescue proposes the construction of the new station in an area of the community that has recently been annexed into the city. This area of the community chose to annex into the city because of a growing discontent with the services previously provided. The building of this station will put emergency resources into an area where there were none before. This community has been underserved by volunteer agencies that could not meet the response standards provided by City of Mobile Fire and Rescue Department. (2) The Proposed Location for the station was strategically chosen based on proximity to sites recommended by Insurance Services Office, Inc. (ISO - Public Protection Summary-Nov 24, 2008), availability of land, and response reliability/risk analysis studies that identify where the placement of emergency resources will have the greatest impact.

### **3.0 ALTERNATIVES EVALUATION**

NEPA requires the investigation and evaluation of reasonable project alternatives. The City of Mobile considered two alternatives, the No-Action Alternative and the Preferred Alternative to construct a new fire station to serve the Community of Theodore at the Proposed Location.

#### **3.1 No-Action Alternative**

The No-action Alternative will eliminate the construction of a new fire station in the recently annexed Community of Theodore. If the new station is not constructed in the annexed area of Theodore, future emergency services to the area will require mobilization from existing fire stations in the City of Mobile. Currently, the closest fire stations operated by the City of Mobile are 2.8, 6.5 and 7.2 linear miles northeast, north, and northeast of the Proposed Location. The closest of these three stations is the only other city fire station located south of Interstate I-10, primarily serves the Tillmans Corner/Hollingers Island area, and is located 6.1 miles from the Proposed Location by road. The two fire stations located north of I-10 would be required to travel against the flow of the major evacuation routes (US Highway 90 and Bellingrath Road) in the event of regional emergencies such as hurricanes. In the event of regional emergencies, there is likelihood that the existing city fire stations will give priority to those areas that are closest to the stations, if for no other reason than ease of travel. The No-Action Alternative has the potential to negatively impact the health and safety of emergency response personnel that must mobilize from longer distances; perpetuate the existing risk to public safety and property caused by deficient response times; services will degrade with the future population growth; and potentially burden residents and business owners with higher fire insurance rates and lower property values.

#### **3.2 Preferred Alternative**

The Preferred Alternative is the construction of a new permanently staffed fire station near the intersection of Old Military Road and Bellingrath Road inside the portion of Theodore now annexed within the City of Mobile. The fire station will have one fire engine and one ambulance. The site consists of approximately 2.82 acres of land area. The proposed structure accounts for approximately 9,300 square feet of area under roof with an additional 31,500 square feet of impervious areas for parking, sidewalks and roadways. The plans and specifications provide for a storm water detention structure. The proposed fire station structure will be constructed on a steel reinforced monolithic slab on grade. Walls are constructed of steel reinforced concrete masonry units placed in a stacked bond. The roof consists of open web joists with steel decking covered by a built-up roof or standing seam roof. The structure is principally divided into thirds with office areas and living quarters being divided by a large engine bay. The office areas provide office space, training areas, equipment storage, an exercise area, a decontamination room as well as public restrooms. The engine bay is a "triple bay" engine bay adequate to provide for fire trucks, ladder trucks as well as emergency medical services vehicles. Living quarters consists of a day room, dining room, kitchen, dormitories, laundry room, and private restrooms.

The Proposed Location is centrally located in the annexed area and is 0.42 miles south of the intersection of two of the major corridors in the area: Bellingrath Road and US Highway 90. The construction of the Theodore Fire Station will significantly reduce emergency response times within the community and will be at the point of need and dedicated to the needs of the community in the event of regional emergencies such as hurricanes. Construction of the fire station has the potential to reduce fire insurance rates, increase property values, and encourage future investment. The design of the fire station should be sufficient to handle significant growth within the community. By construction of a new fire station at the Proposed Location, the annexed area will not be dependent on responses from fire stations located several miles away. Two important factors in the selection of the Proposed Location was its close proximity to five schools (four public and one private) and its location south of the railroad that parallels US Highway 90. When blocked by railroad traffic, the area of annexed land located south of the railroad tracks is cut-off from the existing city fire stations that are all located north of the tracks and is jurisdictionally cut-off from volunteer fire stations located south of the railroad tracks. Two of the five local schools are located south of the railroad tracks.

Figures illustrating the Proposed Location and site development plans are provided in **Appendix A, Figures**.

### **3.3 Other Action Alternatives**

One alternative that must be considered is for the volunteer fire departments to continue providing emergency services to the area as they did in the past. The closest volunteer fire stations are located 3.2, 5.8, and 6.2 linear miles north, west, and south of the Proposed Location. The citizens of Theodore specifically chose annexation into Mobile in order to improve public services that were underserved by these very volunteer fire stations. None of the volunteer fire stations are located within the City Limits of Mobile; therefore, are prohibited by state law from providing emergency services to the annexed portion of Theodore. Also, because none of the volunteer fire stations were located within the area that was annexed, none are available for reuse or upgrade by the city.

The City of Mobile did look at two other locations within the annexed area besides the Proposed Location. These locations were rejected by the City of Mobile Fire and Rescue Department because they did not serve the best needs of the service area and were more expensive to acquire.

## **4.0 EFFECTED ENVIRONMENT AND IMPACTS**

### **4.1 Geology, Seismicity and Soils**

The purpose of this phase of the Draft EA is to determine the overall impacts of constructing a Fire Station at the Proposed Location as it relates to geological characteristics.

The Proposed Location is a 2.82 acre undeveloped lot with soils, according to the Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS), consisting of Benndale Sandy Loam. They have a 0-2 % slope and are moderately well drained. The depth to groundwater is greater than 200 centimeters (6.5 feet) and the area has a mean temperature of 67.5 degrees Fahrenheit with a mean annual precipitation of approximately 67 inches (See **Appendix B, Web Soil Survey**).

Because the Proposed Project involves the construction of a new building, Executive Order 12699, Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction, applies to the proposed project. According to the Executive Order, the construction of the Proposed Project must use appropriate seismic design and construction standards and practices. The 1997 Uniform Building Code and American Society of Civil Engineers Standard 7-95 are the only model codes that are substantially equivalent to Federal recommendations for new building seismic design and construction. According to the U.S. Geological Survey (USGS) National Seismic Hazard Mapping Project, the probability of seismic activity within the project area is low to moderate (USGS 2008). Furthermore the Proposed Location is not located in any of the three Seismic Zones that effect Alabama (New Madrid Seismic Zone, Southern Appalachian Seismic Zone, South Carolina Seismic Zone).

The Proposed Location is located within the Coastal Lowlands District of the East Gulf Coastal Plain physiographic section. These areas are characterized by flat to gently undulating, locally swampy plains that consist of Holocene to Quaternary age alluvial, low terrace, and coastal deposits, which overlie Miocene and Pliocene sediments in many parts of the area. The Holocene to Quaternary age deposits represent complex beach, dune, lagoonal, estuarine, and deltaic depositional environments. The deposits consist of very fine to coarse grain sand that is gravelly in many exposures. The thickness of the alluvial, low terrace, and coastal deposits is estimated to range from 0 to 200 feet. The Quaternary sand and gravel beds represent buried channel deposits. Their width and depth are similar to that of the present river bed sediments. These buried channel deposits are surrounded by silt and clay sediments similar to those being deposited on the present flood plain of

the Mobile River. According to the Geological Survey of Alabama (GSA) Areas of Active Sinkholes and Subsidence, there is no evidence of sinkholes within Mobile County.

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that to the extent possible Federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland. Federal agencies are required to develop and review their policies and procedures to implement the FPPA every two years. All areas in Mobile County with Benndale Sandy Loam soils are classified as Prime Farmland Land. However, the Proposed Location is no longer suitable for farmland based on the following:

- The Proposed Location is not currently used as farmland.
- Historically, the Proposed Location does not appear to have been used as farmland since about 1966.
- Since 1966, the surrounding area has become increasingly developed for commercial and residential purposes.
- The Proposed Location is zoned R-1 for residential development.
- Contiguous properties are not currently used as farmland nor are they likely to be used as farmland in the future.
- The Proposed Location is bounded by a church, residential properties, and small parcels of undeveloped land segmented by roads and developed properties.
- The development of the Proposed Location as a fire station will not seed future urban development in a previously rural setting. Instead, the fire station will be an addition to a setting already in the process of urban maturation.
- Although the Proposed Location is not identified as being within an Urbanized Area (UA) designated by the 2000 Census Bureau Map, Old Military Road that adjoins the Proposed Location to the north was the boundary of a UA at that time.
- There are currently a minimum of 30 structures located within a 40-acre area that encompasses the Proposed Location.

**The No-Action Alternative** will have no impacts to geology, soils, or farmlands.

**The Preferred Alternative** will have no significant impact on current or potential farmland. The construction phase of the proposed project will consist of site clearing, creating a foundation, building construction, paving, curbing, and landscaping. Construction activities will not require substantial alteration of native soils due to the flat topography and will not be deep enough to affect underlying geologic resources. Geotechnical soil borings will be conducted to determine the suitability of the site soils for building. Construction activity will utilize best management practices (BMP) to minimize soil erosion, such as installation of silt fences, proper staging of construction equipment, and planting cover vegetation over bare soils immediately after the construction phase. The operation of the proposed Fire Station will consist of responding to local emergency utilizing fully equipped first responder vehicles. No onsite activities will take place outside of routine equipment maintenance and training. These activities will not have any apparent impact as in pertains to the site geology, seismicity, and soils.

## **4.2 Water Resources**

### **4.2.1 Hydrology/Water Quality**

The purpose of this phase of the Draft EA is to determine the possible impact of constructing a Fire Station at the Proposed Location as it relates to Hydrology/Water Quality.

The U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged or fill materials into waters of the U.S. including wetlands, pursuant to Section 404 of the Clean Water Act. Wetlands are identified as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. In addition, Executive Order 11990, Protection of Wetlands, directs federal agencies to take actions to minimize the destruction, loss or degradation of wetlands and to preserve and enhance the values of wetlands on federal property.

The construction of the Fire Station at the Proposed Location may impact two seasonal drainage patterns. The “ditches” that cross or adjoin the Proposed Location are of low quality and only provide storm water conveyance.

**The No-Action Alternative** will have no impacts to hydrology and water quality.

**The Preferred Alternative** will have no significant impact on site hydrology and water quality. A USACE permit has been obtained to alter the natural drainage pattern of the Proposed Location (see **Appendix C, USACE Permit**). As required by this permit mitigation credits will be purchased from Wetland Solutions Lillian Swamp Mitigation Bank in Baldwin County, Alabama (See **Appendix D, Wetlands**). Site construction will be conducted in a manner to minimize objectionable material from entering storm water runoff. The operation of the Fire Station will be conducted in a manner that limits storm water exposure through routine maintenance of equipment and inspections during rain events.

#### **4.2.2 Floodplains / Executive Order 11988 Floodplain Management**

The purpose of this phase of the Draft EA is to determine if the Proposed Location is in a Floodplains area.

In compliance with FEMA policy implementing Executive Order 11988, Floodplain Management, the project was reviewed for possible impacts associated with occupancy and modification of a floodplain. Under this order, construction within the 100-year floodplain is prohibited from receiving federal funding, unless there are no practical alternatives. Furthermore, fire stations are considered critical facilities, thus are reviewed against the 500-year floodplain. According to the National Flood Insurance Program’s Flood Insurance Rate Map (FIRM) panel 666 of 1018, dated March 17, 2010, the Proposed Location is located in un-shaded area Zone X, neither in nor near a 100-year or 500-year floodplain (See **Appendix E, Flood Maps**).

**The No-Action Alternative** will have no impacts on floodplains.

**The Preferred Alternative** will have no impacts on floodplains.

#### **4.2.3 Wetlands / Executive Order 11990 Protection of Wetlands**

The purpose of this portion of the Draft EA is to determine if wetlands areas are located on the Proposed Location and if so will that be impacted by the proposed development.

Wetlands are generally areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species, and the extended presence of water may create conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils.

Wetlands vary widely because of local and regional differences in soil, topography, climate, hydrology, water chemistry, vegetation, and other factors, including human disturbance. Two general categories of wetlands are recognized, which are identified as tidal wetlands and inland wetlands.

Areas subject to jurisdiction under Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act of 1899 are commonly referred to as “wetlands”; however, “wetlands” are actually a subset of areas subject to jurisdiction and potential permitting requirements and constraints. The overall inclusive term used in the CFR is “waters of the US”, which includes wetlands; all surface tributary streams with a defined channel; all major streams, rivers, lakes, most ponds; and occasionally manmade features such as ditches or abandoned borrow pits. Jurisdictional wetlands are defined by federal regulations as areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support under normal circumstances a prevalence of vegetation typically adapted for life in saturated soil conditions [Environmental Protection Agency (EPA), 40 CFR 230.3]. There are approximately 0.3 acres onsite that would satisfy the criteria to be a wetland pursuant to the USACE 1987 Manual with subsequent clarification memoranda (See **Appendix C**).

**The No-Action Alternative** will have no impacts on wetlands.

**The Preferred Alternative** will directly impact the 0.3 acres of wetlands located on the Proposed Location. These areas are considered low quality wetlands and a fill permit has been granted by the USACE. As discussed in Section 3, there are no practicable alternatives to the Proposed Location. Wetland impacts will be mitigated through purchase of credits in a local wetland mitigation bank.

#### **4.2.4 Groundwater**

The purpose of this phase of the Draft EA is to determine the possible impact to groundwater by the construction of a Fire Station at the Proposed Location.

The Benndale Sandy Loam soils that underlie the site typically exhibit a water table that is greater than 200 centimeters (6.5 feet). The Proposed Location is at an approximate elevation of 50 feet above mean sea level.

**The No-Action Alternative** will have no impacts on groundwater.

**The Preferred Alternative** will have no significant impact on groundwater quality. All site construction will be considerably shallower than the anticipated depth of groundwater beneath the site. The Fire Station will not include the installation of an underground storage tank (UST) for the onsite fueling of emergency vehicles or septic tanks.

## **5.0 BIOLOGICAL RESOURCES**

To compliance with Section 7 of the Endangered Species Act which requires federal agencies to consider the impacts to threatened and endangered species, a Threatened and Endangered Species review was conducted. The US Fish and Wildlife Service lists the following Threatened or Endangered Species for Mobile County (see **Appendix F, Endangered Species**): Flatwoods Salamander, Piping Plover, Wood Stork, Gulf Sturgeon, West Indian Manatee, Louisiana Quillwort, Hawksbill Sea Turtle, Leatherback Sea Turtle, Kemp’s Ridley Sea Turtle, Green Sea Turtle, Loggerhead Sea Turtle, Gopher Tortoise, Alabama Red-Bellied Turtle, and Eastern Indigo Snake. No critical habitat was listed on or near the Proposed Location.

The Gulf Sturgeon and West Indian Manatee inhabit coastal rivers in the Southeast. The Proposed Location does not contain any coastal rivers.

The various sea turtles are widely distributed. They may be found hundreds of miles out to sea, as well as in inshore areas such as bays, lagoons, salt marshes, creeks, ship channels, and the mouths of large rivers. Coral reefs, rocky places, and ship wrecks are often used as feeding areas. They nest on ocean beaches and occasionally on estuarine shorelines with suitable sand. The Proposed Location is located well inland of the Alabama coastline and is not located adjacent to any bays, lagoons, or salt marshes.

Wood storks are generally found near large wetlands and in particular cypress swamps. The small impaired wetlands at the Proposed Location would not provide suitable habitat.

**The No-Action Alternative** will have no impact on biological resources.

**The Preferred Alternative** will have no effect on federally listed critical habitat or threatened or endangered species. None of the endangered species listed above were observed and the Proposed Location did not contain habitat conditions for any of the above listed species.

## **6.0 AIR QUALITY**

The purpose of the portion of the Draft EA is to outline potential air pollutants associated with the construction and operation of the proposed Fire Station at the Proposed Location.

The USEPA uses six “criteria pollutants” as indicators of air quality, and has established for each of them a maximum concentration above which adverse effects to human health may occur. These threshold concentrations are called National Ambient Air Quality Standards (NAAQS).

The USEPA has designated specific areas as NAAQS attainment or non-attainment areas. Non-attainment areas are any areas that do not meet the quality standards for a pollutant. These areas are subject to corrective actions specified by USEPA, including restrictions on certain types of activities. Attainment areas are any areas that meet ambient air quality standards. Mobile County is in attainment for all six criteria pollutants and has no restrictions.

**The No-Action Alternative** will have no impact on air quality.

**The Preferred Alternative** will have no adverse impact on air quality. Construction of the proposed fire station would involve pollutant emissions from construction equipment, which could result in minor effects to air quality in the area immediately surrounding the construction activity. Fugitive dust would escape into the atmosphere during these activities; however, the effects would be localized, of short duration, and would not jeopardize the attainment status of Mobile. To minimize the impact on air quality, construction contractors will use well-maintained equipment and use dust control measures. The two emergency vehicles that will reside at the facility are brand new vehicles that meet all USEPA standards to reduce air emissions. The vehicles each have a filter system installed behind the muffler that capture 98% of all carcinogens when entering and exiting the station, with the primary benefit of reducing emissions within the station building to protect the health of the station personnel. With the reduction of fire response time compared to current services in the community, the proposed Fire Station may result in smaller, less intense fires that will result in a positive reduction of NAAQS criteria pollutant emissions in the surrounding area.

## **7.0 TRANSPORTATION AND INFRASTRUCTURE**

The purpose of the phase of the Draft EA is to determine the possible impacts to transportation and infrastructure in the surrounding areas should a Fire Station be constructed on the Proposed Location.

The Proposed Location is an undeveloped 2.82 acre lot located on Old Military Road at the intersection of Cary Hamilton Road. The Proposed Location is located approximately 1,000 feet southeast of the intersection of Bellingrath Road. This intersection will be the major point of access and egress from the Proposed Location to

the major corridors of Bellingrath Road and US Highway 90. Currently the entrance to Bellingrath Road from Old Military Road is controlled by a yield sign for traffic going north and a stop sign for going south. The secondary exit from the facility will be eastward by Cary Hamilton Road, which intersects US Highway 90 approximately 0.73 miles north of the Proposed Location. Both routes to US Highway 90 require crossing an active railroad right-of-way. Old Military Road is an access road to a residential neighborhood to the south and east that is essentially bottlenecked east of Cary Hamilton Road.

**The No-Action Alternative** will have no impact on transportation, but may result in a negative impact on infrastructure. The surrounding area is currently underserved by the existing volunteer emergency response system, which presents a limitation on the general improvement of the community infrastructure.

**The Preferred Alternative** will involve a short-term increase in vehicular traffic during the construction phase. The construction contractor will provide signs, flag persons, and other measures to minimize disruption to vehicles. The increase in traffic by the small staff of fire station personnel reporting to work during normal working hours will be negligible. During time of emergency, there will be temporary disruptions in traffic flow caused by potentially arriving emergency response personnel and exiting emergency vehicles. Improvements of the existing road infrastructure will be needed to accommodate emergency vehicle traffic entering and exiting the fire station and Old Military Road. Warning lights will be installed at the fire station to warn oncoming traffic and pedestrians. Traffic lights will be installed at the intersection of Old Military Road and Bellingrath Road that can be controlled from the fire station. Improvements will be made as necessary to Cary Hamilton Road for use as a reliable alternative for access to US Highway 90. The Proposed Location will ensure access to areas south of the railroad tracks that have the potential to block responders coming from the existing fire stations located further to the north. The area south of the railroad tracks includes several residential neighborhoods and Mary W. Burroughs Elementary School located 0.55 miles to the northeast and Mt. Ararat Mbc Little Red School located 0.25 miles to the southeast on Old Military Road.

## **8.0 NOISE**

Noise is generally described as unwanted sound. Existing ambient noise levels in the area are consistent with urban/residential areas.

**The No-Action Alternative** will have no impact on noise.

**The Preferred Alternative** will involve a short-term increase in noise during daytime hours on weekdays during the construction phase. Noise producing signals, such as backup alarms, will be used for safety purposes only. Noise levels resulting from construction activities will comply with local noise ordinances. Noise levels from alarms, sirens, and emergency vehicles will increase during times of emergency responses. Fire drills will not be conducted at this facility. At night during times of low traffic, vehicles will make less use of sirens. The vehicle engines are designed and maintained to stay within NFPA standards for noise. Fire sirens and station alarms can range from 95 to 120 decibels. These noise levels would be above acceptable levels, but would only be sustained for short durations in close proximity to the station. Once in route to the emergency, sirens will be in use regardless of which fire station the vehicles are responding from. This impact cannot be mitigated due to NFPA 1901 and State Fire Marshal requirements for minimum sound-warning requirements for fire equipment when responding to an emergency.

## 9.0 CULTURAL RESOURCES

### 9.1 Archeological and Historical Resources

The purpose of the phase of the Draft EA is to determine what Archeological and Historical Resources are present on and/or near the Proposed Location.

In addition to review under the NEPA, consideration of impacts to cultural resources is mandated under Section 106 of the National Historic Preservation Act (NHPA), as amended, by 36 CFR Part 800. Requirements include the identification of significant historic properties that may be impacted by the proposed action or alternatives within the project's area of potential effect. Historic properties are defined as archaeological sites, standing structures or other historic resources listed in or determined eligible for listing in the National Register of Historical Places. If adverse effects on historical, archaeological or cultural properties are identified, agencies must consider effects of their activities and attempt to avoid, minimize, or mitigate the impacts to these resources.

A Cultural Resources Review was completed and submitted to the State Historic Preservation Officer (SHPO) for concurrence. The only possible eligible historical structure identified within the view shed of the Proposed Location is a Sanctuary located on the property of the First Baptist Church of Theodore. The Sanctuary was erected between 1950 and 1951 and is located approximately 620 feet west-northwest of the Proposed Location. The structure and seven younger structures are located on the church property, which adjoins the Proposed Location to the west. The Cultural Resources review concluded that the Proposed Location and adjacent property was not identified as containing any listed historical landmarks.

**The No-Action Alternative** will have no impact on Archeological and Historical Resources.

**The Preferred Alternative** is unlikely to impact Archeological and Historical Resources as none were identified within the Area of Potential Affect. The SHPO concurred with the findings of the Cultural Resources Review on September 29, 2010 (See **Appendix G, National Register of Historical Places**). Information about the project was also sent to tribes to determine if there are any historic properties of religious or cultural significance to them, no responses were received. In the event of cultural resources being identified during site work, the grant approval will be conditioned on work stopping in the affected area to allow further evaluation of the find with consulting parties.

### 9.2 Housing and Economic Development

The purpose of this phase of the Draft EA is to determine the impacts as it pertains to housing and economic development in the surrounding area.

**The No-Action Alternative** will have no positive impact on housing and economic development in the surrounding area. The absence of a reliable and timely emergency response services will be detrimental to fire insurance rates, property values, new housing construction, and economic development of the community.

**The Preferred Alternative** will have a positive impact on housing and economic development in the surrounding area. The presence of a reliable and timely emergency response services will improve fire insurance rates and property values, and encourage new housing construction and economic development in the community.

### 9.3 Aesthetics and Urban Design

The purpose of this phase of the Draft EA is to determine the impacts as it pertains to aesthetics and urban design in the surrounding area.

**The No-Action Alternative** will have no impact on aesthetics and urban design in the surrounding area.

**The Preferred Alternative** will have no negative impact on aesthetics and urban design in the surrounding area. The area surrounding the Proposed Location is an older, low-density urban/residential area that does not have any uniform aesthetic appearance or urban design.

#### **9.4 Hazardous Materials and Waste**

The purpose of this section of the Draft EA is to identify Hazardous Materials and Wastes located on or near the Proposed Location and any potential Hazardous Materials and Wastes generated as a result of development.

Hazardous wastes, as defined by the Resource Conservation and Recovery Act (RCRA), is defined as “a solid waste or combination of solid wastes, which because of its quality, concentration, or physical, chemical, or infectious characteristics may (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of or otherwise managed.”

Research for this topic was performed by conducting a Phase I Environmental Site Assessment for the Proposed Location in accordance with the American Society for Testing and Materials (ASTM) E 1527-05 Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process. PPM conducted the site reconnaissance on January 28, 2009. Based on the historical information researched, the Proposed Location has been undeveloped and vacant since at least 1940. Aerial photographs indicate the Proposed Location was cropland from at least 1940 to about 1966. Chief James Shelly, with the Theodore-Tillmans Corner Volunteer Fire Department, stated that he had been a fireman since 1975 and did not recall any environmental concerns in the area. The Proposed Location was acquired by the First Baptist Church in 1978, but all development associated with the church is on the 11.79 acres that adjoin the Proposed Location to the west. The Proposed Location is currently undeveloped and wooded. Some household dumping and piles of concrete debris were observed onsite; however, no evidence of hazardous substances or petroleum products was observed. Adjoining properties are the First Baptist Church, mixed commercial and residential with undeveloped, wooded or vacant areas. Federal and state databases reviewed for this project included: National Priorities List (NPL), Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) List, RCRA Generators, RCRA Treatment, Storage, or Disposal (TSD) facilities, ERNS (Emergency Response Notification System), state-equivalent NPL and CERCLIS sites, Leaking Underground Storage Tank (LUST) sites, Registered Underground Storage Tank (RUST) sites, state landfill facilities, Brownfields sites, voluntary cleanup sites, and Institutional/Engineering Control sites. There were no such sites identified within the minimum search distances specified by ASTM Standard Practice. A copy of the Phase I ESA is provided in **Appendix H, Phase I ESA of Theodore Property**.

There are currently three NPL or Superfund site located in Mobile County: Redwing Carriers, Incorporated in the City of Saraland, Stauffer Chemical (Cold Creek Plant) near Bucks, and the Stauffer Chemical (LeMoyne Plant), in Axis. All three of these facilities are many miles north of the Proposed Location and have no potential to impact the Proposed Location with hazardous, toxic or radioactive wastes.

**The No-Action Alternative** will have no impact on Hazardous Materials and Wastes.

**The Preferred Alternative** will have no negative impact on Hazardous Materials and Wastes. Phase I Environmental Site Assessment did not identify any onsite use or disposal of Hazardous Materials and Wastes or offsite sources of Hazardous Materials and Wastes that have the potential to impact soil or groundwater beneath the property. The construction of the Fire Station will generate a modest amount of construction debris waste that will not be hazardous waste. The daily operations of the Fire Station will generate normal levels of house hold and/or universal waste that will not be hazardous waste.

## **10.0 SOCIOECONOMIC**

### **10.1 Land Use and Zoning**

The purpose of this section of the Draft EA is to determine the land use and zoning impact of the proposed project.

**The No-Action Alternative** will have no impact on land use and zoning.

**The Preferred Alternative** will have no negative impact on land use and zoning. The property is currently not in use and is in an area zoned R-1 for Residential Single Family. Construction of the fire station will be compatible with the current zoning.

### **10.2 Executive Order 12898: Environmental Justice**

The purpose of this section of the Draft EA is to determine the Environmental Justice impact of the proposed project.

Executive Order 12898, entitled “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” mandates that federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of programs on minority and low-income populations. The 2000 census determined that there were 198,915 people residing within the Mobile city limits. Mobile is the center of Alabama's second-largest metropolitan area, which consists of all of Mobile County. Metropolitan Mobile had a population of 399,843 as of 2000 census.

There were 73,057 households out of which 22,225 had children under the age of 18 living with them, 29,963 were married couples living together, 15,360 had a female householder with no husband present, 3,488 had a male householder with no wife present, 24,246 were non-families, 20,957 of all households were made up of individuals, and 7,994 households had someone living alone who is 65 years of age or older.

The racial makeup of the city was 48.2% White, 47.9% Black or African American, 0.2% Native American, 1.8% Asian, 0.3% Pacific Islander, 0.5% from other races, 0.9% from two or more races, and 1.2% of the population were Latino.

The average household size was 2.59 and the average family size was 3.23. Same-sex couple's households comprised 0.9% of all households.

The population was spread out with 7.1% under the age of 5, 73.6% over 18, and 13.4% over 65. The median age was 35.6 years.

The male population was 47.6% and the female population was 52.4%.

The median income for a household in the city was \$37,439, and the median income for a family was \$45,217. The per capita income for the city was \$21,612. 21.3% of the population and 17.6% of families were below the poverty line.

**The No-Action Alternative** will have no impact on Environmental Justice.

**The Preferred Alternative** will have no negative impact on Environmental Justice. The funding of this project will not adversely affect the local populace as it will provide improved fire and safety support for all of the community. It will also provide a short-term economic benefit for the local population. The proposed action will benefit all citizens equally.

## **11.0 PUBLIC HEALTH AND SAFETY**

The purpose of this section of the Draft EA is to determine public health and safety concerns as a result of the construction of a Fire Station on the Proposed Location.

**The No-Action Alternative** will have no impact on public health and safety.

**The Preferred Alternative** will have no negative impact on public health and safety. This proposed project will not adversely affect the human health and safety of the area. Conversely, the construction of a local fire station will greatly enhance the response time to human health and safety emergencies.

## **12.0 CUMULATIVE EFFECTS**

According to NEPA regulations, cumulative impacts represent “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of which agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7)”. In accordance with NEPA and to the extent reasonable and practical, this EA considered the combined effect of the Preferred Alternative and other actions occurring in the vicinity of the Proposed Project.

This Preferred Alternative is located in a relatively low density area of Theodore. Because of the small scale of the fire station facility, when combined with recent and potential future growth and development in the area; it is not expected to cause significant adverse cumulative impacts related to physical resources, water resources, biological resources, cultural resources, socio-economic, infrastructure and transportation, noise, hazardous materials, public service and utilities, or public health and safety.

## **13.0 PERMITTING, PROJECT CONDITIONS, AND MITIGATION MEASURES**

The City will implement and comply with the following project conditions and mitigation measures before and during site work:

- The City is responsible for securing all applicable local, state, and federal permitting before site work and complying with conditions therein.
- The City is responsible for selecting, implementing, monitoring, and maintaining Best Management Practices to control soil erosion and sedimentation during site work, reduce spills and pollution, and provide habitat protection; consistent with the Clean Water Act Section 401 Water Quality Certification.
- The City will implement and comply with the USACE conditions Nationwide permit, including purchase of wetland mitigation credits before work proceeds.
- If any hazardous materials are found during site work; these shall be characterized, remediated, and disposed of as appropriate, and otherwise handled in accordance with the governing local, state, and federal laws and regulations.
- Site soils will be covered and/or wetted during construction as needed to minimize fugitive dust.
- In the event that potentially significant cultural resources are discovered during project activities, and in compliance with State and Federal laws protecting cultural resources, including Section 106 of the NHPA, work in the immediate vicinity will cease, the area will be secured, and the SHPO and FEMA will be notified.

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other laws and Eos, before implementation.

## **14.0 PUBLIC INVOLVEMENT**

Public involvement is required for the Draft EA. An initial public notice was published on March 27, 2011 providing a 15 day comment period to the preliminary Draft EA. A public meeting was also held on April 25, 2011 that provided information about the project. This revised Draft EA is being made available for an additional 15 day comment period (**Appendix I, Public Notice**). The public, tribes, and agencies, will have the opportunity to comment on the Draft EA. The notice identifies the action, location of the proposed site, participants, location of the Draft EA, and who to write to provide comments. FEMA will review all substantive written comments for issues that need to be addressed with the City, and will incorporate resolution into the Final EA, as appropriate. If no substantial issues arise, then this Draft EA will become the Final EA, with only minor changes for clarity.

## **15.0 CONCLUSION**

The Draft EA evaluated environmental and historic resources that could be affected by the Preferred Alternative. The evaluation did not identify any significant adverse impacts associated with the various resources. Implementing the Preferred Alternative, along with outlined conditions including permits or approvals, is expected to avoid or minimize adverse effects associated with the action. Following public involvement, FEMA will determine whether to issue a FONSI for the Preferred Alternative.

## **16.0 LIST OF PREPARERS**

Bryan S. Jones – PPM Consultants, Inc.  
Greg Stover – PPM Consultants, Inc.

## **17.0 LIST OF REFERENCES**

Geologic Hazards Program  
[www.gsa.state.al.us](http://www.gsa.state.al.us)

U.S. EPA – Green Book  
[www.epa.gov/oar/oaqps/greenbk/ancl.html](http://www.epa.gov/oar/oaqps/greenbk/ancl.html)  
Phase I Environmental Assessment Report, February 10, 2009, PPM Consultants

USGS Quadrangle Map  
[www.nationalmap.gov/viewers.html](http://www.nationalmap.gov/viewers.html)

National Wetlands Inventory  
[www.fws.gov/wetlands/](http://www.fws.gov/wetlands/)

National Resource Conservation Services Web Soil Survey  
[www.websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx](http://www.websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx)

U.S. Fish and Wildlife Service – Alabama Ecological Services Field Office  
[www.fws.gov/daphne/](http://www.fws.gov/daphne/)

City of Mobile Consolidation Plan

U.S. Census Bureau

[http://factfinder.census.gov/servlet/ACSSAFFacts?\\_event=&geo\\_id=16000US0175768&\\_geoContext=01000US%7C04000US01%7C16000US0175768&\\_street=&\\_county=Theodore&\\_cityTown=Theodore&\\_state=04000US01&\\_zip=&\\_lang=en&\\_sse=on&ActiveGeoDiv=&\\_useEV=&pctxt=fph&pgsl=160&\\_submenuId=factsheet\\_1&ds\\_name=null&ci\\_nbr=null&qr\\_name=null&reg=null%3Anull&keyword=&\\_industry=](http://factfinder.census.gov/servlet/ACSSAFFacts?_event=&geo_id=16000US0175768&_geoContext=01000US%7C04000US01%7C16000US0175768&_street=&_county=Theodore&_cityTown=Theodore&_state=04000US01&_zip=&_lang=en&_sse=on&ActiveGeoDiv=&_useEV=&pctxt=fph&pgsl=160&_submenuId=factsheet_1&ds_name=null&ci_nbr=null&qr_name=null&reg=null%3Anull&keyword=&_industry=)

City of Mobile GIS Land Use System

Environmental Review of Endangered Species, Cultural Resources and Wetlands  
August 11, 2010, PPM Consultants

Environmental Data Resources (EDR) National Environmental Policy Act (NEPA) Check, June 22,  
2010

Wetlands Delineation Report, July 9, 2010, Wetlands Resources