Draft Environmental Assessment

Asbury Fire/Rescue Building
Pittsboro Volunteer Fire & Rescue Department Inc.

ARRA-AFG/SCG Grant #: EMW-2009-FC-00843 R

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FEMA

U.S. Department of Homeland Security
Federal Emergency Management Agency - Region IV
3003 Chamblee Tucker Rd - Hollins Bldg
Atlanta, GA 30341-411

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LIST OF ACRONYMS

FEMA – Federal Emergency Management Agency

NEPA – National Environmental Policy Act

ESA – Endangered Species Act

EA – Environmental Assessment

EIS – Environmental Impact Statement

FONSI – Finding of No Significant Impact

USACE – U. S. Army Corps of Engineers

EPA – Environmental Protection Agency

USFWS – U. S. Fish & Wildlife Service

NC - North Carolina

NCDOT – North Carolina Department of Transportation

SHPO – State Historic Preservation Officer

OSA – North Carolina Office of State Archaeology

NHP – North Carolina Natural Heritage Program

NR – National Registry of Historic Places

FIRM – Flood Insurance Rate Map

PVFRD – Pittsboro Volunteer Fire & Rescue Department, Inc.

CPR - Cardio-Pulmonary Resuscitation

S&EC – Soil & Environmental Consultants, PA

1.0 INTRODUCTION

The Pittsboro Volunteer Fire & Rescue Department, Inc. (PVFRD) proposes to construct a new firefighting / emergency response building in the Asbury Community in southern Chatham County, North Carolina (NC), to fully equip that facility and to man it full-time (24/7). The proposed facility, to be located on Walter Bright Road approximately 500' east of its intersection with Highway NC 87/US 501, will consist of a 60' x 100' single story metal building with three vehicle bays, bedrooms, bathrooms, a day room, a training area, offices, and a kitchen. It will be very similar to the Department's Station #2 located north of Pittsboro on Old Highway 87.

The PVRFD currently serves the south-central part of Chatham County, NC in an area of approximately 103 square miles that includes the Town of Pittsboro, county seat of Chatham County, all of Center Township, most of Oakland Township, and small parcels of Hickory Mountain, Hadley, and Haw River Townships. At present they have their headquarters and central operations in a building located at 150 Sanford Road within Pittsboro, NC. As noted above they have one additional station located on Old Highway 87 north of the Town of Pittsboro. The fire department was formed in 1938 and moved to their current headquarters in 1976. Fire, rescue, first responder, and hazmat service is presently provided to approximately 10,200 people through 20 volunteers and 12 paid employees at their two existing facilities. In addition PVFRD provides mutual assistance to other departments within the county and to several other fire departments within the surrounding area.

The southern part of PVFRD's district does not at this time have an adequate level of fire and rescue service. This section of Chatham County, known locally as the Asbury Community, is now served by the headquarters facility in Pittsboro. However the distance to the Asbury community is around 7.5 – 12 miles, depending on the specific locale within that area, and the response time can be as much as 15 minutes to certain areas. In addition, a small, one-lane bridge on one of the area roads creates a major impediment to reaching certain sections of this community, due to load limits and dimensional restrictions on that bridge.

The proposed Station #3 will be constructed in the northwest quadrant of the intersection of Highway NC 87 / US 501 and Walter Bright Road on a 3.1-acre tract of land already owned by PVRFD (see Figure 1 in Appendix 1 and Site Photos 1 – 3 in Appendix 2). It is estimated that the proposed new building, parking lot, and associated driveways will occupy a maximum of one acre, depending on the final site plan. Access to the new building will be from Walter Bright Road, however it will be only about 500' or less from the driveway entrance to the center of Highway NC 87 / US 501, a major thoroughfare through this part of Chatham County (see Site Photos 4 & 5 in Appendix 2).

The PVRFD is very much in need of financial assistance for this project as their resources are very limited and most of the tax monies they do receive are required for ongoing operations. They have managed to save and do have funds to pay for part of the projected total cost of $737,500 for the new facility. The PVRFD has applied for and the Federal Emergency Management Agency (FEMA) has offered financial assistance for this project under their Homeland Security Grant Program subject to the fire department meeting certain requirements and subject to completion of a successful environmental review of the proposal. This environmental assessment document will serve the latter requirement. It 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 Environmental Assessment (EA) is to analyze the potential environmental impacts of the proposed new fire substation to serve the Asbury Community. FEMA will use the findings in this EA to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

2.0 PURPOSE AND NEED FOR THE PROJECT

The purpose of the project is to improve significantly the PVFRD's firefighting, emergency response, and hazmat operations to the south-central part of Chatham County, NC. This area, known locally as the Asbury Community, is in the PVRFD service area but is located 7.5 – 12 miles from the main facility in Pittsboro, NC. That distance, combined with a very load-limited one-lane bridge on one of the main access roads to the southern sections of the Asbury Community, creates a response time to this area of up to 15 minutes and in some cases even longer. The proposed new station will serve the Asbury Community and will provide quicker emergency response and increase public safety. The new station will also serve as a "safe place" in the event of natural disaster. The substation would also increase PVRFD's ability to provide automatic/mutual aid to neighboring departments in Chatham County and Lee County in a timely manner. All of these purposes are consistent with the Homeland Security Grant Program's objectives of building and sustaining national preparedness and improving a community's ability to quickly respond to and recover from a major disaster or emergency.

The response time for medical calls to the Asbury Community currently averages about ten minutes and all fire calls average 12 minutes plus. An emergency response trip to the most southern part of this area has been known to take 15 minutes or longer. The current response times makes firefighting rather difficult and results in medical calls with sometimes less than desirable results. Without the proposed funding, PVFRD will not be able to construct the new station for at best another 5 – 10 years and the above noted problems and issues will continue and possibly worsen as traffic on area roads increases in the future. Currently 20 to 25 percent of the calls for PVFRD are to the Asbury Community. The proposed new Station #3 will pick up all calls in the southern portion of the PVRFD district including structure fires, car fires, vegetation/brush fires, miscellaneous fires, vehicle accidents, gas leaks, and medical calls. Response times to emergencies in the Asbury Community will be decreased to 5 – 7 minutes, approximately one third to one-half of the current response time. The addition of this station will also reduce insurance rates in this area, as residents here are currently in a class 10 insurance

rating. The new station will make this area eligible for a class 6 rating, which should drastically reduce insurance rates for area residents. The new station will provide an approximate 5 – 7 minute response time to fire situations and other emergencies as opposed to the current 10 – 15 minute response from the central station in Town. This will significantly lessen structural and other property damages due to a fire and provide a major improvement in the rescue and first responder functions.

Other districts that provide mutual assistance coverage in this area are; West Sanford and Goldston, however their response times are similar. Several serious automobile accidents have occurred in this area in the past, all with extended response times. PVRFD does provide Medical Responder Level with defibrillation capabilities. It has been well documented that when cardio-pulmonary resuscitation (CPR) is not provided, the victim's chance of survival fall 7 to 10 percent for every minute of delay until defibrillation. Brain death starts to occur 4 – 6 minutes after someone experiences cardiac arrest with no CPR and defibrillation (re: American Heart Association statistics). Receiving the first treatment within 3- 5 minutes of collapse increases survival significantly. The construction of the proposed fire station will provide this area with a level of service comparable to most other residents of Chatham County.

3.0 ALTERNATIVES

3.1 – No Action – This alternative would not involve construction of a new firefighting / emergency response facility nor any other action to improve the level of emergency protection for the Asbury Community. It would avoid expenditure of approximately $737,500 and would avoid any and all adverse impacts associated with construction. This alternative would not result in any type of sudden, major impacts and conditions within the Asbury / southern Chatham County area would essentially remain the same as present for some time into the future. However it is almost a certainty that over the long term the present problems would worsen. As traffic continues to build in this area in the future, response times will likely continue to increase. Residents in the Asbury area would continue to pay much higher

insurance rates than most of the other county residents, due to their distance from the Pittsboro main fire station.

3.2 – Preferred Action – This is the selected alternative as it meets the project objectives and eliminates or significantly decreases the existing problems with firefighting and emergency response in the Asbury Community. This alternative consists of constructing a new fire station at the intersection of Highway NC 87 and Walter Bright Road, providing equipment for the station, and providing manpower at the station on a 24/7 basis. The proposed action will bring the level of fire protection and emergency response in the Asbury Community to a level equal to most other residents in Chatham County. Included in this alternative is a 60' x 100' metal building to contain 3 truck bays, a kitchen, bedrooms, a dayroom, and training areas. Figure 2 (in Appendix 1) shows the general location of the building footprint in relation to the overall configuration of the 3.1-acre tract. Also included is a parking lot and driveways to provide access off Walter Bright Road. The service area that will be covered by this proposed fire/rescue building is shown in Figure 3 (see Appendix 1).

3.3 – Alternatives Considered and Dismissed - After due consideration it was determined there are no other feasible action alternatives that would meet the project objectives and satisfy the project needs. As discussed below, the only alternatives that would even partially satisfy objectives were dismissed because of major hurdles as described below. The objectives for this project are very narrowly defined and the location of the proposed building is highly critical.

3.3.1 – Roving Emergency Vehicles - While not feasible, it would be possible to have emergency response vehicles and emergency response personnel "roving around" the Asbury Community on a 24/7 basis. This would provide some increased level of protection in terms of firefighting and emergency response. It is unlikely this alternative could completely replace the proposed project because it would be almost impossible to carry on the "roving" vehicles all the equipment

that would be placed at a permanent building. Additional personnel would be needed as compared to a permanent building as personnel would have to go home to rest and sleep as compared to staying for a tour of duty at a permanent building. Obviously the wear and tear on vehicles would be tremendous as they operate around the clock and additional vehicles would be needed to allow for servicing and repair of "on-duty" vehicles. In addition fuel costs would be tremendous as well as maintenance and upkeep expenses. The PVFRD does not have adequate funds to implement this alternative on their own and additional funding resources would be required on a permanent basis. While this alternative would be possible with sufficient funds and sufficient manpower, a cursory review comparing present worth costs of the proposed project and this alternative indicates it would have a present worth cost of many multiples of the selected project. It was not selected because of funding considerations and future operation and maintenance costs.

3.3.2 – Recruit and Train Residents - The only other potential alternative to achieve at least some of the project objectives would be to recruit and train residents of the Asbury Community area as firefighters / emergency responders. This option would place emergency response vehicles at their homes. A slight variation of this scenario would be to purchase / construct / rent homes for PVRFD personnel within the Asbury area and likewise place emergency vehicles at their homes. PVRFD policy prohibits employees from keeping emergency vehicles at their residences on a permanent basis. In addition, vehicles would still have to be returned to the main operations building for servicing, cleaning, etc. It would be highly undesirable to leave emergency vehicles outside where they would be subject to the elements and therefore this alternative, just as the other alternative discussed above, may also require the construction of some type of storage buildings for the vehicles. The net effect of constructing buildings and possibly constructing housing for employees would likely be even greater than the selected alternative. This alternative was dismissed because it provides no

benefits over the selected alternative and would have significantly greater overall costs.

4.0 AFFECTED ENVIRONMENT AND POTENTIAL IMPACTS

4.1 Physical Resources

4.1.1 – Geology and Soils (*Applicable Laws / Regulations: Farmland Protection Policy Act*) – Figure 1 (Appendix 1) provides an overall location for the project and Figure 2 (in Appendix 1) is an overall aerial photograph of the site with the approximate building footprint superimposed. The 3.1-acre site is located in the Piedmont section of North Carolina and more specifically within the Slate Belt Region of Chatham County. It is now completely wooded (see Site Photos 6 – 8 in Appendix 2) and there are no buildings or other improvements on the property. During the field inspection completed for this EA, Soil & Environmental Consultants, PA (S&EC) did note three mobile homes along with a small house with a storage building along Minow Johnson Road (see Site Photos 9 - 12 in Appendix 2). These houses are adjacent to the west side of the 3.1-acre tract but are 500' + from the proposed building location. The next nearest house or structure is a brick house located on Walter Bright Road just westward from the proposed fire station site (see Site Photo 13 in Appendix 2). Topographic elevations on the property range from a high of around 370' mean seal level (msl) along a ridge on the southeastern corner of the property to a low of about 350' msl along the northwestern property boundary. The topography of the site is best described as gently to moderately sloping. The site has no rock outcrops or other unusual geologic features.

Mr. Don Wells, a professional licensed soil scientist from S&EC visited the site in April of 2010 for the purpose of completing a preliminary soils evaluation and the soil report is attached as Appendix 3 to this report. As noted in S&EC's report, the primary soil types on the site are Cid and Lignum with a small area of

Herndon soil in the approximate center of the 3.1-acre tract. This is the only area on the site that is suitable for an on-site wastewater disposal system and will be utilized for that purpose. All of the above referenced soils are upland Piedmont soils and are not subject to flooding. The soils consist of a silt loam surface material over a clay subsoil and are some of the more common soil types found in Chatham County. The Chatham County Soil Survey was referenced by S&EC and that document also denotes the soils on the 3.1-acre site as being Cid and Lignum (see Appendix 3).

The Cid and Lignum soil series are listed in the Chatham County soil survey as state important soil types (see Appendix 3). The Herndon soil series is listed as a prime farmland soil. Prime soil types are those possessing the best qualities for crop production and state important are those that do not fully meet the criteria for prime soils but do possess some good qualities as well. The Farmland Protection Policy Act requires federal agency to evaluate the impacts of federally funded projects or federal actions on important farmland. Federal agencies are required to take actions to avoid conversion of important farmlands if a practicable alternative exists or to minimize impacts on this resource if they cannot be avoided.

The preferred alternative will permanently convert approximately one acre of a state important soil type and will involve about one-eighth acre of a prime soil type. As previously noted, the site is not presently and has not been farmed for many years. There will be about one-eighth (1/8) acre of prime farmland soil type used for the on-site wastewater disposal system. Public sewer service is not available in this area of the county. It can be generally stated that the only soil types in Chatham County deemed suitable for on-site systems at this time are prime soil types, therefore it is unlikely this impact could be avoided. The site could not be moved to a location with public sewer service and still accomplish the project objectives. There is no known alternative that meets the project objective that would avoid this impact.

The No-Action Alternative would not involve any construction, would avoid any land disturbance of any type and would not impact any important farmland soil types.

4.1.2 Air Quality (*Applicable Laws / Regulations: Clean Air Act*) - The Clean Air Act requires an evaluation of a project's potential to impact air quality and a determination if a project has a potential to change attainment status. This project is not subject to that regulation as it will not generate emissions of any type. The Environmental Protection Agency's website listing non-attainment areas was reviewed and it was determined that the proposed project site is in an attainment area. There are no point sources of air emissions in or around the project site and no large industries are found in the area. The closest source of large volumes of emissions would be the cooling tower located at the Progress Energy Shearon Harris Nuclear Generation Facility, about ten miles east from the proposed project site. Large volumes of steam are released from that facility but it does not impact the subject property in any way. The major source of existing air pollutants in the area would be from vehicle emissions along Highway 87 and dust from farming operations. There is little ongoing construction activity in the area at the present time.

The preferred alternative (construction of the proposed fire station in the Asbury Community) will have no impacts on the attainment status of the area in which the project is located. The only impacts of the preferred alternative on air quality would be construction related and would involve additional dust created during clearing and grading operations. The duration of this activity would be normal for any site construction activity such as this and would take around two weeks. Once complete the project will have no impacts on air quality as compared to baseline conditions. Emergency response vehicles will operate from the proposed facility and will create some emissions. However emergency response vehicles would come to this area anyway in the event of a fire, medical emergency, or

other emergency event. While negligible under either condition, the net emissions from emergency vehicles in the area would be less as they will travel shorter distances upon completion of the project. Mitigation measures will consist of specifications within the construction specifications requiring the contractor to employ dust control measures as needed during construction and as required by PVFRD.

The No-Action Alternative would avoid any and all impacts to air quality as no construction would occur.

4.2 Water Resources

4.2.1 Water Quality (Applicable Laws / Regulations: Clean Water Act; Wild and Scenic Rivers Act; Sedimentation and Pollution Act of 1973) – The Clean Water Act requires federal agencies to review short-term and long-term impacts of federally funded projects or federal actions on the area's water quality. If impacts are identified, mitigation measures and best management practices are required to avoid and / or minimize those impacts. The Wild and Scenic Rivers Act requires federal actions to avoid projects or actions that adversely impact a waterway designated under this act. The waterways protected under this act are those that have been identified as having especially significant aesthetic values and recreational values. There are no waterways protected by the Wild and Scenic Rivers Act within 50 miles of the project site. The Sedimentation and Pollution Act of 1973 requires the use of best management practices and construction of structures (retention ponds, sediment basins, etc.) to minimize the loss of sediment from a project site, both during and after construction.

There are no known present or past surface or groundwater quality issues associated with the project site or the surrounding area. There are no bodies of surface water nor are there any streams or other drainageways on the 3.1-acre site on which the proposed fire station will be constructed. An S&EC biologist,

professional soil scientist, and professional engineer have all thoroughly walked over and inspected the site, looking for surface water features. As noted previously this tract is in an upland setting. There are no readily identifiable drains on this property and no "blue-line" streams are shown on the topographic map that covers this site. Runoff from the site is generally sheet flow in a general south to north direction that occurs during heavier rainfall events. S&EC personnel did note a small ephemeral pool of water on the southwest corner of the property adjacent to Walter Bright Road (see Site Photo 14 in Appendix 2). This area is a small depression of approximately 10' x 5' in size that probably holds water only in wetter months of the year. It is in effect a small "pothole" that was likely created during ditch maintenance activities or other activities associated with construction or maintenance of Walter Bright Road. More details on this feature are included in the Wetlands section below.

The nearest significant waterways are the Rocky River, located about a mile to the north, and the Deep River, approximately one mile south. These two waterways are part of the Cape Fear River Basin. Jordan Lake, a multi-purpose reservoir constructed by the United States Army Corps of Engineers, lies about ten miles to the east of the proposed fire station site.

The main potential for impacts associated with the Preferred Alternative, construction of a new fire station at the intersection of Highway NC 87 and Walter Bright Road, will be during construction as the area for the building, parking lot, and driveways is cleared and graded. An area of one-half to one acre, depending on the final site plan, will be cleared and graded for the proposed facility. Prior to beginning construction a sedimentation and erosion control plan will be developed and approved by all appropriate state and local agencies. Erosion control measures, including a stormwater retention pond, will be in place and functional prior to beginning any clearing and grading on the site. The plans and specifications for the construction will require the contractor to maintain sediment / erosion control measures through the construction period. Any

permanent features required (i.e. permanent stormwater retention pond) will be constructed along with the fire station building. A building permit for this project must be obtained from the Chatham County Inspections Department. As part of that process the proposal must go through the Chatham County Environmental Review Board. During that process, the project's potential impacts on water quality will be thoroughly reviewed by that entity and any mitigation measures to protect water quality will likewise be required as part of the building permit process. These measures should prevent any significant water quality impacts associated with stormwater runoff and erosion / sedimentation from the site.

The preferred alternative will utilize an on-site wastewater disposal system. The on-site wastewater system must be permitted by the Chatham County Department of Environmental Health and based on a previous evaluation there is an adequate area of suitable soils for this purpose located on the site. The on-site system will be designed and laid out in the field so as to avoid any potential impacts to groundwater quality on the site. The depth to groundwater has not been physically checked on the ground by S&EC personnel, however the official soil series description for the Cid and Lignum soil series indicate groundwater is typically 10 + feet below the surface. The area is served by a central water system and the proposed fire station will hook up to that system for its potable water supply. S&EC did not inventory the area to determine if there are existing nearby groundwater wells in use, however if so they would be located at the existing homes along Minow Johnson Road to the west of the site. The nearest possible location for a well will be approximately 100' away from the on-site system for the fire station.

The No-Action Alternative would avoid any and all impacts to water resources. There would be no construction and no land disturbance. There would likewise be no potential for secondary impacts to water quality.

4.2.2 – Wetlands (*Applicable Laws / Regulations: E.O. 11990*) – Executive Order 11990 requires federal agencies to avoid if possible and to otherwise minimize and mitigate any impacts to wetlands caused by a federally funded project or federal action. On March 30, 2010, S&EC personnel completed a preliminary wetlands evaluation for the proposed Pittsboro Fire Department Station #3 site (±3 acres). Based on that evaluation S&EC does not believe there are any jurisdictional waters present on site. A U. S. Fish and Wildlife Service National Wetlands Inventory Map (NWI Map) covering the project site location has been included as Figure 4 (in Appendix 1). Per the USFWS NWI Map the proposed project site is not in or near a designated wetland. An isolated ephemeral pool, which S&EC does not believe to be jurisdictional, was found in the southern portion of the tract. A wetlands sketch map, included in the Wetlands Evaluation Report (see Appendix 4) depicts the approximate location of the isolated ephemeral pool identified during the S&EC evaluation (see Site Photo 14 in Appendix 2). At the time of observation, the ephemeral pool was inundated with approximately 10 inches of water. This pool is sparsely vegetated and is believed to be dry during the majority of the year. S&EC believes that this pool is isolated as it does not have a discernable connection to any jurisdictional waters. Though the ephemeral isolated pool is not believed to be jurisdictional it is mentioned in this report because it may resemble a jurisdictional feature during periods of inundation. The preliminary wetland delineation consisted of traversing the property to examine soils, vegetation, and hydrology across the site in search of areas that meet the criteria for jurisdictional wetlands as described by the procedures set forth in the Corps of Engineers Wetlands Delineation Manual (January 1987 – Final Report). S&EC has many years of experience in the delineation of jurisdictional areas and is widely recognized as one of the most qualified environmental consulting firms in North Carolina in terms of delineation of wetlands and other jurisdictional areas. The field investigation also included a search for surface waters such as intermittent and perennial stream channels, ponds, and lakes, which are also subject to regulation by the United States Army Corps of Engineers (USACE) as waters of the United States. These surface

waters may also be referred to as jurisdictional waters to indicate that they are within the jurisdiction of the USACE. S&EC's full report documenting the preliminary wetlands evaluation for the proposed fire station site is included as Appendix 4 to this report. It is important to note that wetlands are also classified as waters of the United States and are regulated by the USACE under authority of the Clean Water Act (33 USC 1344). It should be noted that based on the request for environmental scoping comments (see Appendix 5), the USACE did recommend that an on-site reconnaissance and delineation of jurisdictional wetlands be conducted for this project (see Appendix 6). As noted above that recommendation was accomplished during the environmental assessment process. The PVFRD will continue to coordinate and consult with the USACE during the project planning, design, and construction phases. When a site plan has been developed for the project and construction limits have been staked on the ground, the USACE will be requested to visit the site to confirm S&EC's determination that there are no wetlands present. This is standard operating procedure for construction projects within the Wilmington District of USACE. Construction will not begin until the USACE has concurred in the finding that there are not wetlands present.

The preferred alternative, construction of a new fire station at the intersection of Highway NC 87 and Walter Bright Road, will have no impact on jurisdictional wetlands or any other jurisdictional areas and no mitigation measures are required to protect this resource. The No-Action Alternative would likewise have no impacts of any type on wetlands or other jurisdictional areas.

4.2.3 - Floodplains (*Applicable Laws / Regulations: E. O. 11988; Flood Disaster Protection Act of 1973*) – These regulations require federal agencies to review potential impacts of federally funded projects and federal actions on designated floodplains and to avoid impacts to this resource unless there is no practicable alternative. If impacts to floodplains are identified, mitigation measures are required to minimize those impacts. The proposed site for this project is not

located within a designated 100-year or 500-year floodplain. S&EC personnel reviewed the FIRM maps for this area and determined that this site is not within or anywhere near a designated floodplain area. A copy of the FEMA FIRMette map for this area (Panel # 9467 Chatham County) with the project site shown on it is included as Figure 5 (see Appendix 1). Mr. Thomas Honeycutt, a licensed professional engineer with S&EC has walked over the site to also evaluate any flooding potential. FEMA Form 81-93 has been completed, signed, and sealed by Mr. Honeycutt to certify the project site is not located in a floodplain area. That form is also included as part of Appendix 7 to this report.

The No-Action alternative would have no impacts to floodplains are no construction would occur and the site would remain in its present state. The Preferred Action Alternative would not impact floodplains as there are no floodplains within the project area (per review of FEMA FIRMette Panel #9467).

4.3 Coastal Resources (*Applicable Laws / Regulations: Coastal Barrier Resources Act; Coastal Zone Management Act*) These regulations require federal agencies to avoid impacts to specific areas of coastline identified under the Coastal Barrier Resources Act and to insure that projects are sited and constructed in a manner that avoids or minimizes impacts to important coastal resources. The proposed project is located in the southern part of Chatham County, North Carolina. This is an inland county and the nearest coastline is approximately 150 miles to the southeast.

There are no coastal resources present on the project site or within the potential impact area and there is no potential for impacts on these resources, either with the Preferred Alternative or the No-Action Alternative. No further consideration of potential project impacts on coastal resources is required.

4.4 Biological Resources (*Applicable Laws / Regulations: Endangered Species Act; Fish & Wildlife Coordination Act)*

4.4.1 Threatened and Endangered Species and Critical Habitat - Species that are federally listed as Endangered or Threatened are protected under the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). Under the ESA, federal agencies are required to avoid adverse impacts to this resource associated with federally funded projects or federal actions. If the project has overwhelming value or need and impacts to a threatened or endangered species cannot be avoided, special procedures are set up in the ESA to deal with this situation.

The U.S. Fish and Wildlife Service (USFWS) and Natural Heritage Program (NHP) lists three protected species that are known or suspected to occur in Chatham and Lee counties.

The three federally protected species documented in Chatham and Lee Counties, NC are:

- Red-cockaded Woodpecker (*Picoides borealis*) – Endangered
- Harperella (*Ptilimnium nodosum*) – Endangered
- Cape Fear Shiner (*Notropis mekistocholas*) – Endangered

No potentially suitable habitat for any of these three species is located within the area evaluated for the Pittsboro Fire Station.

NHP Records within a 5-mile radius of the boundary of the Pittsboro Fire Station site were investigated on March 22, 2010. A file search for federally protected species within a 5-mile radius of the evaluated area was performed through the NHP office located in Raleigh, North Carolina. These records were updated utilizing the NHP Virtual Workroom (NHP 2010) and by requesting element occurrence identifications from NHP staff.

No GIS polygons of NHP element occurrence records overlap the proposed project area. As previously stated, there is no potentially suitable habitat for any federally protected species within the proposed Pittsboro Fire Station site.

Descriptions of the appearance, range, and habitat of the three federally protected species documented to occur in Chatham and Lee Counties, NC follow:

RED-COCKADED WOODPECKER (*Picoides borealis*) US – Endangered, NC – Endangered

DESCRIPTION: The Red-cockaded Woodpecker is a medium-sized woodpecker with a conspicuous white patch on each cheek. The red "cockade" for which the species is named is usually inconspicuous. The back is black, with white bars, and the belly is spotted and barred.

HABITAT: The Red-cockaded Woodpecker is a habitat specialist, requiring mature growth of pine forest with a grassland component underneath. For nesting/roosting habitat, open stands of pine containing trees 60 years old and older are needed. Red-cockaded woodpeckers need live, large older pines in which to excavate their nest cavities. Longleaf Pines (*Pinus palustris*) are most commonly used, but other species of southern pine are also acceptable. Dense stands (stands that are primarily hardwoods, or that have a dense hardwood understory) are avoided. Foraging habitat is provided in pine and pine hardwood stands 30 years old or older with foraging preference for pine trees 10 inches or larger in diameter. In good, moderately stocked, pine habitat, sufficient foraging substrate can be provided on 80 to 125 acres.

ON-SITE HABITAT: No potentially suitable nesting or foraging habitat is located within the proposed Pittsboro Fire Station site boundaries.

CAPE FEAR SHINER (*Notropis mekistocholas*) US – Endangered, NC – Endangered

DESCRIPTION: The Cape Fear Shiner (US-Endangered, NC-Endangered) is a small shiner with a dark lateral stripe that enters the snout area, a dark caudal spot, 7-8 rays on the anal fin, and a long, coiled intestine (Menhinick 1991).

HABITAT: Sandy and rocky pools and runs of small to medium rivers are typical habitat. The following excerpt from the NC

Wildlife Resources Commission website describes the habitat of the Cape Fear Shiner in detail: “The Cape Fear Shiner is most often found in shallow, rocky shoals within main river channels. In winter months, they may migrate into smaller tributary streams. The most obvious features of their preferred habitat are large islands and bars of water willow, *Justicia americana*. This species prefers clean substrates composed of gravel, cobble, and boulders.”

Threats to the Cape Fear Shiner include dams, runoff from agriculture and impervious surfaces, siltation, and predation by the invasive exotic Flathead Catfish (*Pylodictis olivaris*) and other predators including wading birds.

ON-SITE HABITAT: No potentially suitable habitat for the Cape Fear Shiner is located within the Pittsboro Fire Station site boundaries. Based on the existing topography and roads surrounding the site, drainage from the site is likely to infiltrate prior to reaching tributaries of the Rocky or Deep Rivers. Proper erosion and sediment control and stormwater devices will adequately prevent runoff from the site.

HARPERELLA (*Ptilimnium nodosum*) US – Endangered, NC – Endangered

DESCRIPTION: Harperella is a small obligate wetland plant with thin, hollow, cylindrical leaves and white flowers.

HABITAT: Radford (1968) lists the habitat of Harperella as “savannahs and wet ditches”, while the US Fish and Wildlife Service website states that the species can be found in two habitat types; “(1) rocky or gravel shoals and margins of clear, swift-flowing stream sections; and (2) edges of intermittent pineland ponds in the coastal plain”. Similarly, the Center for Plant Conservation website notes its habitat as “(1) shoals and margins of clear, swift-flowing streams and (2) on the coastal plain along the edges of shallow, intermittently flooded ponds and wet meadows.”

ON-SITE HABITAT: No potentially suitable habitat for Harperella is located within the Pittsboro Fire Station site boundaries. There are no on-site streams or wetlands. Based on the existing gradually sloping topography and the roads surrounding the site, drainage from the site is likely to infiltrate prior to reaching tributaries of the Rocky or Deep Rivers. Proper erosion and sediment control and stormwater devices will adequately prevent runoff from the site.

It should be noted that environmental scoping comments (see Appendix 5) were requested for this project from the U. S. Fish & Wildlife Service. They responded back with a letter (see Appendix 6) in which they stated they did not believe the proposed project had any potential to impact a threatened or endangered species or their habitat and that the requirements of Section 7 of the Endangered Species Act (ESA) had been satisfied.

4.4.2-Wildlife and Fish – Professional biologists from S&EC completed a biological assessment of the proposed fire station site (see Appendix 8) to identify existing plant and animal species likely to use the property, cover types, occurrence of species of interest (other than those on the U. S. Fish & Wildlife Service Threatened and Endangered List). The assessment included both field reconnaissance and investigation of North Carolina Natural Heritage Program (NHP) records. The overall condition of the site with respect to its existing vegetation and wildlife species composition was observed.

Before initiating field reconnaissance, maps were prepared in ESRI ArcMap 9.2© and a preliminary investigation of the natural heritage elements near the property was performed using the NHP Virtual Workroom (NHP 2010). Topographical maps were used to aid in locating wetland habitat types. Optimal survey windows for rare species were determined using publications, websites, and personal communications. Transects were run on foot throughout the property. Groundtruthing of specific habitat types and ecotones was done in the field. A Garmin 60CS global position unit was used for navigation and further documentation of potential habitats. 2007 color aerial images, 2-foot topographic maps, and other topographic quadrangle maps were all used during preliminary site assessment and groundtruthing.

A list of animal and plant species observed during the field reconnaissance is included in Appendix 8. It should be noted that this species list is not a complete inventory of all plants and animals which may be present on the site.

Wildlife habitat within the area evaluated for the proposed Pittsboro Fire Station consists mainly of upland Dry-mesic Oak-hickory forest greater than 30 years old. One very small, manmade temporary pool provides aquatic breeding habitat for salamanders; however, this pool may dry each year before larvae emerge in the late spring to early summer. Numerous stump holes and old, decomposing tree stumps are located within the site boundaries, and provide refuge for reptiles, amphibians, and small mammals. The cover types within the area proposed for the Pittsboro Fire Station are approximately shown in Appendix 8.

Wildlife within the area evaluated for the proposed Pittsboro Fire Station includes various game and nongame species. Wildlife taxa observed during the on-site biological investigation include: White-tailed Deer (*Odocoileus virginianus*) (scat and skeletal remains), Pine Warbler (*Dendroica pinus*), Southeastern Five-lined Skink (*Eumeces inexpectatus*), Marbled Salamander (*Ambystoma opacum*) (larvae), and Spotted Salamander (*Ambystoma maculatum*) (egg masses). A full list of plant and animal taxa observed during the on-site biological investigation is provided in Appendix 8 to this report.

Other vertebrate wildlife species expected to utilize the Pittsboro Fire Station site as permanent or transitory habitat include, but are not limited to:

Mammals: Eastern Cottontail, Southern Short-tailed Shrew, Eastern Mole, Gray Squirrel, Southern Flying Squirrel, White-footed Mouse, Pine (Woodland) Vole, White-tailed Deer, Virginia Opossum, Raccoon, Gray Fox, Red Fox, Coyote, and bat species including Big Brown Bat, Red Bat, and others.

Birds: Many neotropical migrant species, Wild Turkey, woodpeckers including Pileated Woodpecker, Downy Woodpecker, Hairy Woodpecker, Red-headed Woodpecker, Red-bellied Woodpecker, Northern Flicker, and Yellow-bellied Sapsucker, raptors including Turkey Vulture, Black Vulture, Red-tailed Hawk, Red-shouldered Hawk, Great-horned Owl, Barred Owl, Eastern Screech Owl, and Cooper's Hawk, Mourning Dove, American Crow, Carolina Chickadee, Tufted

Titmouse, Ruby-crowned Kinglet, White-breasted Nuthatch, Carolina Wren, Northern Cardinal, White-throated Sparrow, Dark-eyed Junco, American Goldfinch, and others.

Reptiles: Eastern Box Turtle, Eastern Slender Glass Lizard, Green Anole, Northern Fence Lizard, Eastern Five-lined Skink, Southeastern Five-lined Skink, Broadhead Skink, Ground Skink, Eastern Worm Snake, Black Racer, Ringneck Snake, Rat Snake, Eastern Hognose Snake, Eastern Kingsnake, Rough Green Snake, Brown Snake, Northern Redbelly Snake, Rough Earth Snake, Smooth Earth Snake, Eastern Garter Snake, and Copperhead.

Amphibians: Northern Cricket Frog, Marbled Salamander, Spotted Salamander, American Toad, Fowler's Toad, Cope's Gray Treefrog, and Slimy Salamander (complex).

There is no potential fish or shellfish habitat within the area evaluated for the Pittsboro Fire Station. The only surface water on-site consists of a small, (approximately 5'x5') shallow, manmade temporary pool. Significant fish and mussel habitat including the Rocky River and tributaries of the Rocky and Deep Rivers exists within 1 mile of the site; however, the proposed construction of the Pittsboro Fire Station is not expected to affect these waters.

Vegetation composition is relatively uniform across the site. The tree stratum consists mainly of Shagbark Hickory (*Carya ovata*), Eastern Red Cedar (*Juniperus virginiana*) Loblolly Pine (*Pinus taeda*), White Oak (*Quercus alba*), Southern Red Oak (*Quercus falcata*), and Northern Red Oak (*Quercus rubra*). Shrubs on-site are sparse and include Highbush Blueberry (*Vaccinium corymbosum*) and Arrowwood (*Viburnum dentatum*). Herbaceous vegetation in the forested areas is also sparse, and includes Sedges (*Carex sp.*), Spotted Wintergreen (*Chimaphila maculata*), Saint John's Wort (*Hypericum sp.*), and Cranefly Orchid (*Tipularia discolor*). Vines are infrequent, and include Carolina

Jessamine (*Gelsemium sempervirens*), Japanese Honeysuckle (*Lonicera japonica*), Greenbrier (*Smilax sp.*), and Muscadine (*Vitis rotundifolia*).

Although the site itself contains significant microhabitat for terrestrial wildlife, it is entirely bounded by paved roads and/or human dwellings, and is not contiguous with other, large tracts of undisturbed habitat. Approximately a half acre of the approximately 3.1-acre site is expected to be cleared to accommodate the construction of the proposed Pittsboro Fire Station. The acreage to be cleared is immediately adjacent to Walter Bright Road, and the majority of the forested areas on-site will remain undisturbed. The fragmentation slightly diminishes the overall wildlife habitat quality of the site. The location of the temporary pool is not expected to be directly impacted by construction.

The construction of the preferred alternative is not expected to have a measurable significant negative effect on wildlife or wildlife habitat. There will be some minimal impacts as wildlife will avoid or minimize use of the project site during the construction period and to some extent after the proposed fire station is complete. Ample habitat exists for all wildlife species within the areas surrounding the project site and the diminished use of approximately one acre will have no significant or long-term impacts on area wildlife. The No-Action Alternative will have no impacts of any type on fish and wildlife resources.

4.5 Cultural Resources (*Applicable Laws / Regulations: National Historic Preservation Act)*- This legislation requires federal agencies to avoid adverse impacts associated with federally funded projects or federal actions on the nations important historic buildings, sites, districts, etc. Agencies are required to evaluate the potential impacts of their actions on sites that are listed or eligible for listing on the National Register of Historic Places.

4.5.1 – Historic Properties - North Carolina SHPO maintains records and locations of buildings, structures, and objects that are listed by local governments as historic landmarks or those which are listed or are eligible for listing on the

National Register of Historic Places. The records check at the State Historic Preservation Office revealed no structures on the property that appear on the National Registry, Determination of Eligibility, Study List, or Locally Designated lists. S&EC also conducted a review of state records at the North Carolina Office of Archaeology (OSA). The in-depth review included consultation with cultural resources staff and map room searches for sites and structures of historical, cultural, and archaeological significance on or within a 1-mile radius of the subject property. No structures appearing on the National Registry list will be impacted by this project. The State Historic Preservation Office (SHPO) was requested to provide environmental scoping comments (see Appendix 5) on this project. The SHPO did review the project and stated in a review letter (see Appendix 6) they had no comment on the project, indicating they saw no potential impact of this proposal on historic or archaeological resources.

A list of historical structures within a 1-mile radius of the property boundary follows:

CH 364 Jack Johnson House (No Listing)
CH 365 Robert Bright House (No Listing)
CH 787 Truss Bridge #147 (Study List, Determination of Eligibility)

The Preferred Alternative has been determined to have no impacts on archaeological or historic resources. There are no existing buildings on the site and no archaeological sites on the site or within the area that listed on the National Register of Historic Places. The State Historic Preservation Officer has reviewed the project and issued a “No Comment” finding, indicating he did not identify any potential impacts of the Preferred Alternative on this resource. The No-Action Alternative would not involve any construction or ground disturbing activity and likewise would not have impacts on these resources.

4.5.2 – Tribal Consultation and Religious Sites – FEMA is initiating tribal consultation to determine if the project poses any potential impact to Native American resources. Appropriate actions will be taken to avoid or mitigate any impacts that might be identified.

4.6 Socioeconomic Resources – As noted previously the proposed project is intended to provide improved firefighting and emergency response capabilities for the Asbury Community in southern Chatham County. The socioeconomic base for Chatham County, according to the estimated 2008 census data is as follows:

Population : 61,455
71% white, 13% African-American, 12% Hispanic, 2% Asian, 2% other
Median Household Income: $51,794
% of Individuals Below Poverty Level – 13.8%

Comparable information for Oakland Township, which comprises almost all of the service area for the proposed fire station is as follows:

Population: 1067
79.9% white, 17.9% African-American, 0.7% American Indian, 0.2% Asian, 0.5% other
Median Household Income: $55,201
% of Individuals Below Poverty Level – 6.4%

The major difference between Oakland Township and Chatham County as a whole is the lack of a significant Hispanic population base in Oakland Township. As noted above the county as a whole has a significant Hispanic population however almost all of that ethnic group is located in and around the Town of Siler City in the western part of the county. S&EC's review of township data in that area shows up even higher percentages of Hispanic population than the county as a whole. The Preferred Alternative, construction of the new fire station within the Asbury Community,

would have positive impacts on socio-economic resources as the quality of life would be improved in this area and area residents would realize a cost savings on their property insurance. They would have some more expendable money as a result and would have the opportunity to use that money to even more enhance their standard of living. The No-Action Alternative would leave things exactly as they are and would not offer the potential benefits to socio-economic resources as with the Preferred Alternative.

4.6.1 Environmental Justice (*Applicable Laws / Regulations: E. O. 12898)* – Federal agencies are required to evaluate the potential impacts of federally funded projects or federal actions on specific ethnic groups and / or minority groups. If adverse impacts of this type are identified, the project or action must be revised to avoid these impacts or mitigation measures must be incorporated to minimize / compensate for the impacts.

The proposed project is located in a relatively sparsely populated section of Oakland Township. The proposed fire station, when complete, will likely not be visible from any occupied house much of the year. It will be surrounded by a wooded buffer on all sides except the south side which will front on Walter Bright Road. The nearest residential structures to the proposed site are three mobile homes located along Minow Johnson Road to the west and they are shown on Figure 2 (in Appendix 1).

During that recent site visit, S&EC personnel rode all around the proposed fire station location and covered almost all the roads within its proposed service area. Based on that visual inspection and information from Chatham County personnel, there are no concentrations of ethnic groups around the proposed fire station site or within its service area. There are no ethnic groups that will be adversely impacted or that will receive non-proportional benefits from the proposed project. All of the residents in the Asbury community will benefit from the increased level of emergency response and from the opportunity for significant decreases in their

property insurance rates associated with the new facility. The only potential noticeable adverse impact from the project will be to the three mobile homes and will be associated with possible increased noise levels associated with the fire and rescue vehicles sirens when responding to emergency calls. This will result from the fact that the emergency vehicles will always be leaving from the proposed station as opposed to traveling in from the main Pittsboro station as now occurs. All other residents of the service area will not experience any noticeable difference in noise levels as the emergency vehicles already respond to calls in this area. Some residents and businesses along Highway 87 will not hear emergency vehicles as often as all responses to the Asbury Community now originate from the Pittsboro station and those responses will come from the proposed fire station in the future.

4.6.2 Noise (*Applicable Laws / Regulations: Noise Abatement and Control – 24 CFR Part 51 Subpart B)* – This regulation requires federal agencies to evaluate any potential adverse noise impacts to surrounding communities associated with federally funded projects or federal actions and to avoid / mitigate any impacts that are identified. Also the regulation requires agencies to evaluate the impacts of existing or future external noise sources (i.e. train tracks, airports, major highways, etc.) on users of a federally funded project.

There will be two minor noise impacts associated with the preferred project. The first impacts will occur during construction as the site is cleared and graded. Equipment anticipated to be used during this process are: chainsaws, backhoes, tractors, and bulldozers. All construction will occur during daylight hours (approximately 8 to 5) and is expected to take approximately one to two weeks. There are no houses or other occupied buildings close enough to be adversely impacted by construction noise. The contract documents will require all equipment operating on the site to have properly installed and properly operating mufflers to minimize noise produced.

The only potential permanent noise related impact from the project will be the increased level of noise associated with emergency vehicle sirens within approximately a quarter-mile of the proposed fire station site. As stated above, there are only five homes along Walter Bright Road and Minow Johnson Road that fall within a quarter-mile radius of the proposed site. The most noticeable noise impact would be an emergency response call during nighttime hours when most people are asleep. According to PVFRD Chief Mr. Daryl Griffin and Mr. Brian Shaw, there are approximately 20 – 25 responses per month to the Asbury area. They further stated that on the average approximately 50% of the PVFRD calls are for emergency responses requiring the use of sirens. Mr. Shaw indicated that around 2/3 of the Department's calls occur during daytime hours and about 1/3 at night. Although the number of nighttime calls can obviously vary, using the information provided by Mr. Shaw indicates that the proposed fire station would answer about 3 – 4 emergency calls per month during nighttime hours that would require the use of sirens and that could possibly create some degree of adverse noise impacts to residents of the noted homes. Mr. Shaw stated that PVFRD has never had any complaints associated with sirens and emergency vehicles at their existing Station #2 nor is he aware of any significant noise complaints associated with any of the other fire stations or other fire departments within Chatham County.

The No-Action Alternative would not create any additional noise and there would be no potential for noise impacts on project users. The Preferred Alternative would create some increased levels of noise associated with the use of sirens on emergency vehicles housed at the proposed building. As noted above, this impact is not expected to be significant because of the fire station's relatively isolated location. Emergency vehicles already respond to emergencies in this area with sirens, therefore the main impact of the preferred alternative is there would be more frequent use of sirens along Walter Bright Road as vehicles are deployed to calls.

4.6.3 Traffic – The proposed fire station as noted, is located at the intersection of Highway 87/501 and Walter Bright Road. Highway 87/501 is a major thoroughfare through Chatham County and through central North Carolina. It has ample capacity to handle calls that might originate at the proposed station and would require a response route along that road. All of the other roads in the service area are local state maintained roads and now experience only light traffic loads, based on S&EC's observations during field visits to this area on three separate occasions. Traffic issues should not be a problem based on the expected 20 – 25 calls per month from the proposed fire station location.

Temporary one-lane road signs will be placed on both sides of the proposed site if and when needed during construction. The only time the project may interfere with local traffic is during the period that the driveways are tied into the road. This effort should take approximately two days with periods of one-lane traffic limited to two hours. There will be a permanent caution sign placed along Walter Bright Road on both sides of the new station denoting its location and the possibility of emergency vehicles entering. A caution light may be placed over the road in front of the new station if deemed necessary by the NC Department of Transportation.

The No-Action alternative would have no impacts on traffic as no construction would occur and conditions would remain as they are now. With the Preferred Alternative, there would be some more frequent use of Walter Bright Road by emergency vehicles, however the expected number of calls (20 – 25 per month or approximately one call / day) will not cause any traffic congestion and at most will cause a slight delay (30 seconds) to traffic along Walter Bright Road as an emergency vehicle deploys from the station.

4.6.4 Public Service and Utilities – The proposed fire station will require normal levels of electrical service, potable water service, and wastewater disposal service comparable to a larger residential house or small commercial facility. All of those

services are already present at the site with the exception of wastewater disposal which can be readily accomplished with the use of an on-site system. The PVFRD has already been in contact with the Chatham County Environmental Health Department and they have determined that an adequate on-site wastewater system can be installed on the proposed site. During a recent site visit, the S&EC professional soil scientist also verified the presence of acceptable soil on the site for an on-site system. There will be no adverse impacts on public services associated with construction of the proposed fire station.

Neither the preferred alternative or the No-Action alternative will have any identifiable impacts on public utilities.

4.6.5 Public Health and Safety – The project will have significant positive impacts in this area. The No-Action alternative will prolong the current difficulties and problems associated with extended emergency response times to this area have previously been documented in this report. The Preferred Action would greatly enhance the level of public safety in the Asbury Community as a result of much decreased response times when emergencies do occur. The increased benefit to public health and safety in the Asbury Community is the primary purpose for this project. There are no adverse impacts in this area associated with this project.

4.7 Cumulative / Secondary Impacts – An assessment of this class of impacts involves identifying and assessing the potential impacts of the project on an area when combined with other similar projects, other similar undertakings, and other similar purpose projects. Secondary impacts are those that occur in the area as a result of the project serving its intended purpose and function. These impacts are typically associated with growth and development that happen because of or are accelerated by the proposed project. The Asbury fire station represents a public service including but not limited to firefighting, emergency / catastrophe management, rescue, emergency medical attention, and a safe location for residents needing shelter in the event of natural disasters or other reasons. The other public

services that are offered to Asbury residents at this time include police protection (through the sheriff's department), public education (through the Chatham County School System), a central public water supply (through the Chatham County Water District), public roads (through the (NCDOT - N. C. Department of Transportation) and currently available levels of firefighting and emergency response offered by PVFRD. The proposed project would simply improve the current level of the latter service. According to Mr. Jason Sullivan director of the Chatham County Planning Department, these services do not drive development within the county. He stated that he was not aware of any identifiable impact on growth and development resulting from the construction of a fire station. He does not believe there will be any significant cumulative impacts resulting from the proposed new fire station as the presence of a new fire station does not appear to affect development in rural areas of Chatham County.

S&EC also asked Mr. Daryl Griffin, fire chief for PVFRD, if he had noted any increased development, land use changes, etc. as a result of construction of PVFRD Station #2 north of Pittsboro. Mr. Griffin indicated he had not noted any correlation of new development with the location of fire stations in the rural areas of the county. He stated that outlying fire stations, such as the proposed Asbury Station #3, are generally constructed in response to needs and requests from existing residents and to support existing development.

S&EC did a cursory tour around one area of the county that has had a new fire substation in place for approximately 8 – 10 years. The North Chatham Fire Department has a substation located adjacent to Highway US 64 in the eastern part of the county. S&EC personnel rode the area served by that substation but did not notice any new subdivisions, new commercial developments etc. in the immediate area around the substation. The relatively new subdivisions that have occurred in this section of the county are located in close proximity to Jordan Lake and are associated to a large degree with that feature.

S&EC further compared population growth of the various townships within the county to see if there was any correlation between the growth "hot spots" and the location of fire departments. All of the townships that experienced rapid growth over the past few years are located in close proximity to Durham and Orange Counties. In almost all cases the construction of new subdivisions has been predicated on proximity to Durham and Chapel Hill, proximity to the new Highway 64 By-Pass, and proximity to Pittsboro and Siler City. There is no correlation between historic population growth in Chatham County and the placement of new "substations" that offer increased safety and fire protection.

In summary there is not likely to be any adverse cumulative or secondary impacts associated with this project.

5.0 AGENCY COORDINATION, PUBLIC INVOLVEMENT, AND PERMITS

S&EC personnel and the leadership of PVFRD have made very diligent efforts to inform the public of the proposed project. The potential construction of a fire station within the Asbury Community has been discussed for many years and according to Mr. Brian Shaw, concerted efforts were made to build a station in this area in both the 1980's and 1990's. These efforts failed because of a combination of inability to raise funds for the construction and failure to meet requirements of the State Fire Marshall. Efforts towards building the station for rejuvenated in the latter part of 2009. On December 3, 2009, PVFRD held a public meeting in the Asbury Community and received overwhelming support for building the proposed station. Other forms of public notification have included several newspaper articles in the Chatham Record, the local newspaper. Construction of the Asbury fire station has been discussed and supported in several County Commissioner meetings. In addition the PVFRD has been coordinating the project for the past year with the Planning Department, the Department of Environmental Resources, and the county's Emergency Response Department. The project has been well publicized and the public has been well aware of efforts to construct a new fire station / rescue building in the Asbury Community.

Prior to beginning preparation of the environmental assessment, S&EC did seek environmental scoping comments (see Appendix 5) from a number of State and Federal agencies, local governmental agencies and offices, and an environmental organization known to have interests in projects constructed in this area of the state. Those receiving requests for scoping comments are as follows:

- N. C. Department of Administration State Clearinghouse (covers approximately 16 state environmental agencies having review requirements or review interests in projects constructed in North Carolina)
- U. S. Environmental Protection Agency
- U. S. Fish & Wildlife Service
- U. S. Army Corps of Engineers
- Chatham County Planning Department
- Town of Pittsboro
- Chatham County Board of Commissioners
- Chatham County Environmental Resources Division
- Haw River Assemblage (local environmental group)
- Chatham County Environmental Review Board

Several responses were received from the above list. Copies of these responses have been included in Appendix 6 and are summarized as follows:

- N. C. Department of Administration State Clearinghouse (covers approximately 16 state environmental agencies having review requirements or review interests in projects constructed in North Carolina):

  N. C. Department of Environment and Natural Resources – noted potential permits that might be required for this project.

  N. C. Department of Cultural Resources (SHPO) – no comment as to any impact on historic / cultural resources.

- U. S. Environmental Protection Agency:

  No comments received.

- U. S. Fish & Wildlife Service:

  Stated their opinion that project would not impact threatened or endangered species / habitat and project complies with Section 7 of ESA. They also recommended consideration of potential project impacts on aquatic resources and use of best management practices to control erosion and sedimentation.

- U. S. Army Corps of Engineers:

  Recommended a field reconnaissance and / or delineation of wetlands and jurisdictional areas on the property.

- Chatham County Planning Department:

  Noted that the proposal is permitted under the current zoning and watershed regulations applicable to this area – also noted that project must comply with all applicable standards and regulations of the Chatham County Land Use Plan.

- Town of Pittsboro:

  No comments received.

- Chatham County Board of Commissioners:

  No comments received.

- Chatham County Environmental Resources Division:

  Stated the project must comply with zoning ordinances and other applicable county ordinances such as sediment and erosion control, stormwater management, and watershed protection.

- Haw River Assemblage (local environmental group):

  No comments received.

- Chatham County Environmental Review Board:

  No comments received.

The PVFRD has had ongoing contacts and consultations with the Chatham County Board of Commissioners, the Chatham County Health Department and other local government boards during the planning stages for the proposed fire station. They have received full support from the Commissioners and have not received any expression of opposition to the project from any local agencies.

6.0 LIST OF PREPARERS

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7.0 LIST OF REFERENCES

U. S. Department of Homeland Security, Federal Emergency Management Agency

FIRMette Panel # 9467

U. S. Department of the Interior, Fish & Wildlife Service

National Wetlands Inventory Maps

Threatened and Endangered Species List for North Carolina

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

National Register of Historic Places, North Carolina

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8.0 LIST OF FIGURES & APPENDICES

Appendix 1. Report Figures.

Figure 1 – General Vicinity Map

Figure 2 – Site Map with Building Footprint Shown

Figure 3 – Service Area Map for Proposed Asbury Fire Station

Figure 4 – National Wetland Inventory Map

Figure 5 – FEMA FIRMette, Panel 9467

Appendix 2 – Site Photos

Appendix 3 – S&EC Preliminary Soils Evaluation Report

Appendix 4 – S&EC Preliminary Wetlands Evaluation Report

Appendix 5 – Copies of Requests for Environmental Scoping Comments

Appendix 6 – Copies of Scoping Comments Received

Appendix 7 – FEMA Form 81-93

Appendix 8 – S&EC Report on: Threatened / Endangered Species

Cultural Resources

Site Biological Resources Inventory