

Draft Environmental Assessment

CAMP SHELBY - FORREST ROAD WIRELESS COMMUNICATIONS TOWER

Camp Shelby, Forrest County, Mississippi

Mississippi Interoperable Communications Grant Program

FEMA 2008-MS-MX-0001, MSWIN 20757

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FEMA

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Acronym List

ACHP – Advisory Council on Historic Preservation
AGL – Above Ground Level
AQCR - Air Quality Control Region
ASR – FCC Antenna Structure Registration
BMPs – Best Management Practices
CAA – Clean Air Act
CFR – Code of Federal Regulations
COWS - Cellular-On-Wheels
CWA – Clean Water Act
CZMA – Coastal Zone Management Act
EA – Environmental Assessment
EIS - Environmental Impact Statement
EO – Executive Order
EPA – Environmental Protection Agency
ESA – Phase I Environmental Site Assessment
ESA – Endangered Species Act
ESTO – Eastern Shawnee Tribe of Oklahoma
FAA – Federal Aviation Administration
FCC – Federal Communications Commission
FEMA – Federal Emergency Management Agency
FIRM – Flood Insurance Rate Map
FONSI - Finding of No Significant Impact
FORSCOM - United States Army Forces Command
FPPA - Farmland Protection Policy Act
FWPCA – Federal Water Pollution Control Act
MDEQ – Mississippi Department of Environmental Quality
MDWFP - Mississippi Department of Wildlife, Fisheries, and Parks
MSWIN - Mississippi Wireless Integrated Network
MWCC - Mississippi Wireless Communication Commission
NAAQS - National Ambient Air Quality Standards
NEPA - National Environmental Policy Act
NHOs – Native Hawaiian Organizations
NHPA – National Historic Preservation Act
NPA – Nationwide Programmatic Agreement
NPDES – National Pollutant Discharge Elimination System
NRCS – Natural Resource Conservation Service
NRHP – National Register of Historic Places
NWI – National Wetland Inventory
PA – Programmatic Agreement
PPE – Personal Protection Equipment

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Wireless Communications Tower

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SHPO – State Historic Preservation Officer
TCNS – Tower Construction Notification System
THPO – Tribal Historic Preservation Officer
USACE – United States Army Corps of Engineers
USDA – United States Department of Agriculture
USFWS – United States Fish and Wildlife Service

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1.0 INTRODUCTION

The State of Mississippi created the Mississippi Wireless Communication Commission (MWCC) by statute in 2005 to oversee the construction and operation of the Mississippi Wireless Integrated Network (MSWIN) project. MSWIN is wireless voice and data capable infrastructure, providing all users with a public-safety grade, statewide, interoperable, seamless roaming radio system. This 700 MHz Public Safety System is intended to provide highly reliable, fast access, private (within groups and individuals) communications to a wide variety of government and first-responder users within the State of Mississippi. MSWIN is funded largely by federal funds administered through the Department of Homeland Security and the Federal Emergency Management Agency.

This project is being funded using FEMA grant 2008-MS-MX-0001 MSWIN 19949 in conjunction with State of Mississippi expenditures. The project at this site would include construction of a telecommunications facility, purchase and installation of 700 MHz RF equipment and microwave telecommunication backbone network, equipment shelter, network integration, acceptance testing, communication hardware optimization and system exercising and piloting of interoperability capabilities of the network. As part of the MSWIN network, this tower would support a myriad of equipment that would provide emergency response communications for the population within approximately fifteen miles surrounding this proposed site.

2.0 PURPOSE AND NEED

This Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the President's Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations (CFR) Parts 1500-1508), and FEMA's regulations implementing NEPA (44 CFR Part 10). FEMA is required to consider potential environmental impacts before funding or approving actions and projects. The purpose of this EA is to analyze the potential environmental impacts of the proposed construction of a communications tower facility. 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).

The purpose of the MSWIN is to establish a better communications network for State system users, varying from public safety to governmental executive and administrative personnel to road maintenance crews. The MSWIN network would also be used extensively during life threatening conditions and emergency situations. Flooding, hurricanes, earthquakes, tornadoes, and other natural or man-made catastrophes often require effective wide-area, interoperable communications. Following Hurricane Katrina there was a significant lack of communication or communication delays between government agencies due to inadequate coverage or inadequate capacity-handling capabilities. A high degree of redundancy and fail-safe design is essential to the success of this project since communications within the State of Mississippi are most critical when they are most susceptible to failure.

3.0 ALTERNATIVES CONSIDERED

The State of Mississippi considered six alternatives to meet the purpose and need stated in Section 2.0. These alternatives included the Proposed Action, No-Action Alternative, and four alternatives that were considered but dismissed for reasons discussed in greater detail below. Two alternatives, the No Action and Proposed Action, are evaluated in this EA.

3.1 NO-ACTION ALTERNATIVE

Under the No-Action Alternative the proposed project would not be constructed. The No-Action alternative is being included to provide a baseline for comparison purposes.

3.2 PROPOSED ACTION

The Proposed Action would consist of construction of a 270-foot self-supporting communications tower and associated equipment compound to facilitate installation and operation of wireless communications antennae to provide integrated emergency communications between federal, state, and local agencies. These antennae would include microwave dishes that are to be used to send and receive information over long distances without the limitations associated with connection to land lines/cables (primarily interruptions in service due to damage to land lines/cables during emergencies or natural disasters).

3.3 ALTERNATIVES CONSIDERED AND DISMISSED

The State of Mississippi considered four additional alternatives to meet the purpose and need. These alternatives were collocation, satellite communications, commercial cellular communications, and use of the existing State operated networks; all were dismissed from further consideration for the reasons described below.

Collocation opportunities were considered as an alternative to the proposed action. However, the technical loading requirements for this project are for all used structures to be engineered and constructed to the latest tower standards of ANSI/TIA-222-G (class III supporting public safety and mission critical communications). As this is the latest engineering standard and the Class III (public safety) level is the most rigorous engineering standard in the tower industry, there are no existing towers within the coverage area for this project that can be modified to meet this standard and handle the loading requirements MSWIN would place on the tower.

It should be noted that one other tower (Reid Hill MSWIN 19949) is currently scheduled to be constructed approximately 13 miles from this tower location, and it will also meet the latest tower standards of ANSI/TIA-222-G. Both of these tower sites are located on the Camp Shelby military training facility. Camp Shelby is a military post whose North Gate is located at the southern boundary of Hattiesburg, Mississippi, on US Highway 49. It is the largest state-owned training site in the nation. During wartime, the camp's mission is to serve as a major independent mobilization station of the United States Army Forces Command (FORSCOM). Camp Shelby Joint Forces Training Center is the largest reserve component training site, covering 136,000 acres. This is the normal Annual Training location

for National Guard and Reserve units located in Mississippi, Alabama, and Tennessee. However, units from across the country use its assets to support a variety of missions.

The mission of both the 400-foot Reid Hill and the 270-foot Forest Road tower sites is to provide 700/800 MHz handheld (portable) public safety grade voice and data communications to all personal operating within or around the Camp Shelby facility. These tower sites will also be used to provide commercial cellular service to the same personal.

An additional scope of the mission of these sites is to consolidate the commercial CDMA, GSM, and LTE carriers to these two sites. There is not a lot of coverage on LTE at this facility. For quite some time the commercial cellular coverage has been provided by a number of temporary mobile sites known as cellular-on-wheels (COWS) scattered across the facility. These COWS have limited range/coverage and require multiple sites to accomplish their purpose. Also, each individual cellular carrier has its own COWS, so the result is that there are a large number of COWS at the facility.

This proposed tower has a height limitation because of airspace considerations, and it is located in the more populated area of the facility used for administrative purposes. The mission of this tower is to provide coverage in military tanks and hardened vehicles operating in the remote areas of the facility as well as providing “in building coverage” in the administrative buildings.

Satellite communications are commercially available and are currently used as a backup communications method in the event the primary systems fail. Satellite communications are cost prohibitive for the 30,000 users who would be a part of the MSWIN radio network.

Commercial cellular communication services are available in much of the service area MSWIN would provide, but not all of the State of Mississippi is covered by a single cellular operator. MSWIN would provide 97% radio coverage over the state, is more secure than commercial cellular service, is more survivable in the event of natural disasters, and is dedicated to public safety missions. Cellular is an adequate limited backup to the routine and emergency requirements of public safety, but is not adequate for daily operational usage and extreme emergency situations, as compared to the MSWIN system.

The existing State operated radio systems are aging and limited in their coverage reach. The field and dispatch radios are nearing obsolescence and are difficult to find new replacement parts for.

The needs of a growing Mississippi would best be met by the new technology the MSWIN network provides.

4.0 AFFECTED ENVIRONMENT AND POTENTIAL IMPACTS

The site is depicted on the United States Geological Survey 7.5-minute Topographic Quadrangle “McLaurin, Mississippi,” dated 2000. The site is located in the northeast ¼ of the northwest ¼ of Section 29, Township 3 North, Range 12 West in Camp Shelby, Forrest County, Mississippi at latitude 31.199838° north and longitude 89.225238° west. The site consists of a 100-foot by 100-foot lease area and existing graveled access road to be located near the intersection of Forrest Avenue and Lee Avenue West in Camp Shelby, Forrest County, Mississippi. The site is located in a graveled area that was formerly a site for a water tank and slopes gently downward toward the north. The existing access road extends approximately 100 feet northwest from Lee Avenue West then turns southwest and extends approximately 25 feet to the site. Proposed activities consist of construction of a 270-foot self-supporting communications tower and associated equipment compound, enclosing the compound in a fence, placement of support equipment within the compound, and covering the compound with gravel. Maps depicting the site location are included as Figures 1 through 3.

The proposed tower facility would be accessed via locked gate and would have two parking spaces at the entrance of the fenced tower compound. The compound surrounding the tower and equipment would consist of a seven-foot tall security fence with an additional foot of barbed wire surrounding the site. The tower would be built to withstand extreme weather conditions and engineered and constructed to the latest tower standards of ANSI/TIA-222-G (class III supporting public safety and mission critical communications). All radio equipment on the tower would be operated in compliance with all requirements of frequency and power output as regulated by the Federal Communications Commission. Additionally, the gates and fence would have attached no trespassing and other notice and warning signs as may be required by applicable local and federal laws.

Routine operations of the tower facility would have limited vehicular traffic excepting maintenance and routine periodic inspections. Running water or sanitary facilities would not be provided at the facility. Power facilities are available and would be routed in during construction. The tower would not interfere with local residence or the use of the surrounding properties. The increase of vehicular traffic into the area is anticipated to be negligible. The tower and communication systems located thereon would not interfere with other communication systems in the area.

The tower is designed to allow other users on the structure to promote collocation with up to three positions suitable for cellular telephone type wireless service providers. This would potentially reduce the need for additional towers in the area. In addition, the tower is designed to accommodate additional government communications equipment as needed to provide mission critical radio infrastructure increases in the future. A copy of the portion of the 2013 aerial photograph depicting the site layout has been included as Figure 4 and site photographs have been included as Figures 5 through 10. A copy of the site survey is included as Appendix A.

A table summarizing the potential impacts of the proposed action is included at the end of Section 4.

4.1 PHYSICAL RESOURCES

4.1.1 Geology and Soils

Under the no action alternative there would be no impact to geologic resources or soils.

4.1.1.1 Geology

According to the Mississippi Geological Survey, Geologic Map of Mississippi, dated 1969 reprinted 1985, the site is underlain by the Pascagoula Hattiesburg Formation of Tertiary Age. The Pascagoula Hattiesburg Formation consists of green and bluish-green clay, sandy clay, and sand; gray siltstone and sand; locally fossiliferous. Geologic resources may be minimally impacted by drilling or excavation of footings for the proposed communications tower and associated equipment. However, the proposed communications facility would have no significant or wide-spread impacts to geologic resources.

4.1.1.2 Soils

Prime farmland, unique farmland, and land of statewide or local importance is protected under the Farmland Protection Policy Act (FPPA) of 1981 (7 U.S.C. § 4201 *et seq.*). The intent of the FPPA is to minimize the impact Federal programs have on the irreversible conversion of farmland to non-agricultural uses. Prime farmland is defined as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses. Prime farmland cannot be areas of water or urban or built-up land. Unique farmland is defined as land other than prime farmland that is used for the production of specific high value food and fiber crops such as citrus, tree nuts, olives, cranberries, fruit, and vegetables.

Based on information provided by the USDA's NRCS Web Soil Survey (<http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>) Internet website, site soils are classified as Falkner-Susquehanna-Urban land complex, 2 to 5 percent slopes. Falkner soils are somewhat poorly-drained and exist on coastal plains. Typically, the surface layer is silt loam to a depth of 7 inches, underlain by silty clay loam from a depth of 7 to 22 inches, and silty clay from a depth of 22 to 65 inches.

Susquehanna soils are somewhat poorly-drained and exist on coastal plains. Typically, the surface layer is silt loam to a depth of 9 inches, underlain by clay from a depth of 9 to 68 inches.

Based on information provided by the USDA's NRCS Web Soil Survey (<http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>) Internet website, Falkner-Susquehanna-Urban land complex, 2 to 5 percent slopes is classified as not prime farmland.

Environmental, Inc. submitted information regarding the proposed project to the USDA NRCS office in Jackson, Mississippi via letter dated March 16, 2015. The NRCS responded via letter dated April 13, 2015 stating "The proposed activities location will not impact prime farmland areas. No FPPA determination is required." Copies of the correspondence to and from the NRCS are included as Appendix B.

Soils at the proposed project site are classified as not prime farmland; therefore, the proposed communications facility would have no significant impact to soils protected by the FPPA.

4.1.2 Air Quality

The Clean Air Act (CAA) was established in 1970 (42 U.S.C. § 7401 *et seq.*) to reduce air pollution nationwide. The US Environmental Protection Agency (EPA) has developed primary and secondary National Ambient Air Quality Standards (NAAQS) under the provisions of the CAA. The EPA classifies the air quality within an air quality control region (AQCR) according to whether the region meets or exceeds Federal primary and secondary NAAQS. An AQCR or a portion of an AQCR may be classified as being in attainment, non-attainment, or it may be unclassified for each of the seven criteria pollutants (carbon monoxide, lead, nitrogen dioxide, coarse particulates, fine particulates, ozone, and sulfur dioxide).

Under the no action alternative there would be no short or long term impacts to air quality.

According to information available through the Mississippi Department of Environmental Quality (MDEQ) Internet website, the State of Mississippi is currently designated as attainment and meets all national ambient air quality standards. Short-term impacts to air quality such as exhaust emissions from grading and equipment, and dust from grading activities may occur during site grading and construction activities. Equipment used for these activities would meet local, state, and federal requirements for air emissions, and dust would be controlled as necessary by wetting the surface of the work areas. The only long-term air emissions anticipated at the site would be from the emergency generator. The generator would only operate briefly while being tested and during power failure events affecting the electrical power supply to the site. Therefore, the proposed communications facility would have no significant impact to air quality.

4.2 WATER RESOURCES

4.2.1 Wild and Scenic Rivers

Under the no action alternative there would be no impact to wild or scenic rivers.

A review of information available through National Wild and Scenic Rivers ([http://rivers.gov/National Wild and Scenic Rivers System](http://rivers.gov/NationalWildandScenicRiversSystem)) Internet website indicates that one Wild and Scenic River is located in Mississippi. This Wild and Scenic River is a section of Black Creek located in the DeSoto National Forest in southeastern Forrest County, Mississippi. The project site is located more than eight miles north/northeast of Black Creek at its closest point. Therefore, the proposed communications facility would not impact any designated Wild and Scenic River.

4.2.2 Water Quality

The Federal Water Pollution Control Act (FWPCA), also known as the Clean Water Act (CWA) was passed by congress in 1972 (33 U.S.C. § 1251 *et seq.*) with an objective of restoring and maintaining the chemical, physical, and biological integrity of waters of the United States. The National Pollutant Discharge Elimination System (NPDES) was established under the CWA and regulates wastewater discharges from point sources. NPDES regulations require that construction sites resulting in greater than one acre of disturbance obtain a permit from the EPA, or the corresponding state agency where the permitting role has been assumed by the state. The Mississippi Department of Environmental Quality (MSDEQ) is the state agency that has assumed this responsibility for Mississippi.

Under the no action alternative there would be no short- or long-term impacts to water quality.

No water bodies are located on or immediately adjacent to the proposed tower site. Land-disturbing activities at this facility would be approximately 0.88 acres, which is below the one acre threshold requiring an NPDES permit. However, appropriate best management practices (BMPs) would be implemented during site development to minimize sediment migration from the site into nearby water bodies. Examples of BMPs that may be used during site development to further minimize any impacts to nearby water resources include, but are not limited to, silt fence, hay or straw bales, hay or straw mulch, gravel, erosion control blankets, and riprap. Therefore, the proposed communications facility would have no significant short- or long-term impacts to water quality in the area of the site.

4.2.3 Wetlands

According to Executive Order (EO) 11990, wetlands are defined as “...those areas inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.” Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds. EO 11990 requires that each federal agency take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial value of wetlands.

Section 404 of the CWA established a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. The United States Department of the Army Corps of Engineers administers the permitting process created under Section 404 of the CWA.

Under the no action alternative there would be no impacts to wetlands.

Information on the USFWS Wetlands Geodatabase (www.fws.gov/wetlands/) Internet website, the digital National Wetlands Inventory (NWI) map containing the site was reviewed to determine if any wetlands were delineated on or near the site. Based on a review of information available on this website,

the site is not mapped within a jurisdictional wetland. A copy of a portion of the NWI map depicting the site location has been included as Figure 11.

A site reconnaissance which included observations to determine if the subject site or immediately adjacent property contained any jurisdictional wetlands (as defined by the United States Army Corps of Engineers) was conducted on March 3, 2015 by Environmental, Inc. No potential jurisdictional wetland indicators were noted on or adjacent to the site at the time of site reconnaissance.

Information regarding the proposed project was submitted to the United States Army Corps of Engineers (USACE) for review. The USACE responded via letter dated April 17, 2015 stating “Based upon the information provided and our review of aerial photographs and USGS topographic maps, we have determined that the proposed work would not involve the discharge of fill material in waters of the US, provided work is performed as described. In this regard, a Department of the Army permit is not required for this.” Copies of the correspondence submitted to and response from the USACE are included as Appendix C. The proposed communications facility would have no impacts to wetlands.

4.2.4 Floodplain Information

According to EO 11988, the term floodplain refers to the lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a one percent or greater chance of flooding in any given year. This EO requires that each federal agency take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains.

Under the no action alternative there would be no impacts to floodplains.

According to the Federal Emergency Management Agency’s (FEMA) Flood Insurance Rate Map (FIRM) “Map Number 28035C0180D, Forrest County, Mississippi and Incorporated Areas” map revised date March 2, 2010, the site is located in Zone X (no shading) which is described as areas determined to be outside the 0.2% annual chance floodplain. Therefore, the site is not located in a floodplain. It should be noted that the towers that comprise the MSWIN system are considered critical facilities and project design requirements include that the communications equipment at each facility be elevated at least five feet above the 500-year flood elevation (where mapped). In areas where the 500-year floodplain is not mapped, the equipment will be elevated a minimum of five feet above the 100-year base flood elevation. The FIRM depicting the site location does not include areas of 500-year flood. The support equipment at this facility would be elevated at least five feet above the 100-year base flood elevation. Therefore, the proposed communications facility would have no impacts to floodplains and would not be impacted by floodplains. The portion of the FEMA FIRM depicting the site is included as Figure 12.

4.3 COASTAL RESOURCES

The Coastal Zone Management Act (CZMA) was established in 1972 (16 U.S.C. § 1451 *et seq.*) to preserve, protect, and (where possible) restore or enhance the resources of the coastal zones of the United States.

Under the no action alternative there would be no impact to coastal resources.

The Coastal Zone in Mississippi includes the three counties along the coast (Hancock, Harrison, and Jackson) and the adjacent coastal waters. The site is located more than 56 miles from the Gulf of Mexico and is not located in the Mississippi Coastal Zone. Therefore, the proposed communications facility would have no impacts to coastal resources.

4.4 BIOLOGICAL RESOURCES

4.4.1 Threatened and Endangered Species

The Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531 – 1544) provides for the conservation of ecosystems upon which threatened and endangered species of fish, wildlife, and plants depend. The ESA prohibits actions that may harm or jeopardize the continued existence of any threatened or endangered species, or critical habitat.

Under the no action alternative there would be no impact to threatened or endangered species.

Information regarding the proposed wireless communications tower was submitted to the USFWS by Environmental, Inc. The USFWS responded via letter dated April 8, 2015 stating “Based on the information provided in your letter, the Service has determined that the proposed project will have "No Effect" on federally listed species or their habitats. No further consultation under the ESA is required with this office unless there are changes in the scope or location of the proposed project.” Copies of the correspondence to and from the USFWS are included in Appendix D.

4.4.2 Migratory Birds

The Migratory Bird Treaty Act (16 U.S.C. 703) established a Federal prohibition, unless permitted by regulations, to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, or any part, nest, or egg of any such bird."

Under the no action alternative there would be no impact to migratory birds.

The United States Fish and Wildlife Service (USFWS) developed voluntary recommendations regarding communications tower siting, construction, operation, and decommissioning. These recommendations

include collocating of antennae on existing towers or other structures, limiting the height of new towers to less than 199 feet above ground level (AGL), if taller than 199 feet use of the minimum amount of pilot warning and obstruction avoidance lighting required (preferably white strobes), use of non-guyed towers (monopoles, self-supporting towers), consideration of cumulative impacts on migratory birds, locating towers within “antenna farms” where possible, use of the minimum lighting permissible, use daytime visual markers on guy wires, minimization of the footprint of the facility to avoid habitat loss, design of new towers to accommodate additional comparable antennae for at least two additional users, and down-shielding security lighting for on-ground facilities. A copy of the USFWS communications tower siting, construction, operation, and decommissioning recommendations are included in Appendix E.

A basic principal of radio communication coverage is increasing the height extends signal range. Effective coverage is a function of height so to lower each site to less than 199 feet increases the potential tower count over 300 to accomplish the coverage requirements, resulting in roughly 3,000,000 square feet of ground disturbance, or well over twice the current footprint disturbance requirements. Such an increase in ground impact risks a much greater adversity to terrestrial based habitat such as animals and plants, plus the additional carbon footprint produced by the increased development and construction activities.

The build plan for the MSWIN project generally involves construction of one to three towers per county with a total of approximately 140 towers covering the 46,907 square miles (121,489 square kilometers) of land area in the state. This averages out to one tower for every 335 square miles (867 square kilometers) of land area in the state. No county will contain more than five MSWIN towers and many counties will contain only one tower. It is important to note that fewer towers are to be constructed in the delta along the Mississippi River due to the flat terrain and corresponding longer transmit and receive distances achieved. This would reduce potential impacts to migratory birds utilizing the Mississippi Flyway migratory route along the Mississippi River.

The Federal Aviation Administration (FAA) has jurisdiction over all tower lighting and conducts aeronautical studies under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning the impact on arrival, departure, and en route procedures for aircraft operating under VFR/IFR conditions at existing and planned public use airports, as well as aeronautical facilities.

For purposes of MSWIN tower development, obstruction lighting may be one of three types:

- (1) Medium intensity flashing white obstruction lights (white strobes in both day and night (D-1 or D-2); or
- (2) Dual lighting with red / medium intensity flashing white lights (white strobes in daylight and red strobes at night – E-1 or E-2); or
- (3) Marking and lighting with painted towers and red night beacons. This applies to towers over 500 feet in height (E-2 light system).

The proposed tower would be equipped with medium intensity flashing white obstruction lights (white strobes in both day and night).

Bird flight diverters will not be installed on the proposed tower. According to Towers of Mississippi, bird flight diverters are expensive and difficult to maintain over the life of the tower. Adding daytime warning devices to the remainder of the towers in this project would exceed \$5 million in additional capital requirements.

The proposed tower would be designed to accommodate equipment for up to three additional wireless communications providers thereby reducing the need for additional towers in the service area of the proposed project. Security lighting at this facility would consist of motion-activated wall-mounted lights on the equipment shelter at the site.

The construction of the proposed tower would not have a significant impact on migratory birds. However, this tower is part of the MSWIN program that may have the potential for cumulative impacts to migratory birds.

FEMA has identified that the statewide MSWIN program has the potential for cumulative impacts to migratory birds, as birds could be injured or killed by colliding into guy wires and/or the tower structure, or could be disoriented by the tower lighting. FEMA has worked with MWCC and Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP) to develop an Avian Mitigation Plan (Appendix F) to address this potential for cumulative impacts. The mitigation includes monitoring the presence of deceased birds at MSWIN tower sites and providing a collection kit on site to collect the remains and record the location of any deceased bird. The remains of the bird along with the data will be delivered to MDWFP and included in the state's Avian Mortality database. USFWS will also be given access to this database. If an injured bird is found, all efforts will be made to help the bird recover so that it can be released back into the wild. In addition, MDWFP and USFWS (Jackson, MS Ecological Services office) will be given access to the MSWIN tower sites for monitoring. If a particular tower is found to have adverse effects to migratory birds (greater than 10 kills per night) the towers will be reported to MDWFP, USFWS, and FEMA. MWCC will also provide an annual report documenting the number of avian deaths and provide that report to MDWFP, FEMA, and USFWS for five years after all towers have been constructed. This mitigation plan will contribute scientific data that can be used by MDWFP and USFWS in determining the significance of potential impacts of towers on migratory birds. The implementation of the Avian Mitigation Plan will lower the potential for the MSWIN program to have adverse cumulative impacts on migratory birds.

4.4.3 Wildlife and Fish

The Wilderness Act (16 U.S. C. 1131-1136) established the National Wilderness Preservation System to be composed of federally owned areas designated by Congress as "wilderness areas."

Under the no action alternative there would be no impact to wilderness areas.

The proposed communications facility would not adversely affect wilderness areas. Based on a review of information available through Wilderness (<http://www.wilderness.net>) Internet website, three wilderness areas are located in Mississippi – Black Creek Wilderness, Gulf Islands Wilderness and Leaf Wilderness. The site is not located within the boundaries of, or adjacent to, any of these wilderness areas. Therefore, the proposed communications facility would have no impact on wilderness areas.

On October 9, 1997, President Clinton signed the National Wildlife Refuge System Improvement Act of 1997 (P.L. 105-57) into law. This new law amended and built upon the National Wildlife Refuge System Administration Act of 1966 to ensure that the National Wildlife Refuge System is managed as a national system of related lands, waters, and interests for the protection and conservation of the Nation's wildlife resources.

The 1966 Act provides guidelines and directives for administration and management of all areas in the system, including "wildlife refuges, areas for the protection and conservation of fish and wildlife that are threatened with extinction, wildlife ranges, game ranges, wildlife management areas, or waterfowl production areas."

Under the no action alternative there would be no impact to wildlife refuges.

Based on a review of information available at the USFWS (www.fws.gov) Internet website and at the Nationalatlas (www.nationalmap.gov) Internet website, the site is not located within the boundaries of, or adjacent to, any wildlife refuges. Therefore, the proposed communications facility is expected to have no impacts to wildlife refuges.

4.4.4 General Vegetation

Impacts to general vegetation are anticipated to be limited to the areas that are to be excavated and/or graded in preparation of the site for construction of the proposed communications tower and access road. The site consists of a graveled area that formerly contained a water tank and existing graveled access road. The total area of vegetation to be impacted at this site is approximately 0 acres. Therefore, the proposed communications facility would have no impact on general vegetation.

4.5 CULTURAL RESOURCES

Under Section 106 of the National Historic Preservation Act (NHPA), Federal agencies are required to consider the impacts of their actions on historic properties. Historic properties are those that are listed in or eligible for listing in the National Register of Historic Places, and are defined as districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture. The goal of the NHPA is to have federal agencies act as responsible stewards of the nation's resources when their actions affect historic properties. The historic preservation review process mandated by Section 106 is outlined in regulations issued by the Advisory Council on Historic Preservation (ACHP) (36 CFR Part 800). The ACHP is an independent federal agency that promotes the preservation, enhancement, and productive use of the nation's historic resources, and advises the President and Congress on national historic preservation policy. The ACHP is the only agency with the

legal responsibility to encourage federal agencies to integrate historic preservation compliance considerations into their project requirements.

4.5.1 ACHP Program Comment

FEMA is required under Section 106 of NHPA to consider the impacts of its grant-funded projects on historic properties. Similarly, the Federal Communications Commission (FCC) is required under NHPA to consider the impacts to historic properties of communications facilities that receive an FCC license to operate. The FCC has executed two nationwide Programmatic Agreements (PA) under NHPA that streamline the Section 106 review process for new tower construction and collocation projects. On October 23, 2009, the ACHP issued a Program Comment for “Streamlining the Section 106 Review for Wireless Communication Facilities Construction and Modification Subject to Review Under the FCC Nationwide Programmatic Agreement and/or the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas.” Under the ACHP’s Program Comment, FEMA is not required to conduct its own Section 106 review with regard to the effects of communication facilities construction or modification projects that have undergone Section 106 review by the FCC or that are exempt from Section 106 review by the FCC under the FCC Nationwide PA or the FCC Collocation PA. Therefore, the Section 106 review conducted for the proposed project to meet FCC requirements is described in this EA, but no separate 106 review was required for FEMA.

4.5.2 FCC Nationwide Programmatic Agreement

On March 7, 2005 the FCC implemented a Nationwide Programmatic Agreement (NPA) regarding Section 106 reviews (State Historic Preservation Officer and Indian tribal consultation) for wireless telecommunications tower sites. In summary, the NPA set forth rules regarding consultation with the State Historic Preservation Officer (SHPO) in each state where a proposed wireless telecommunications tower is to be constructed; consultation with Indian tribes and Native Hawaiian Organizations (NHOs) that would have been historically located in the area of the proposed wireless telecommunications tower or had indicated an interest in the geographical area containing the proposed wireless telecommunications tower; and involvement of the public and/or local government. As part of the process associated with the NPA the FCC developed the Tower Construction Notification System (TCNS) and FCC Form 620. The TCNS is described in Section 4.5.3 and FCC Form 620 is described in Section 4.5.4.

The NPA requires that a response be received from each Indian tribe or NHO that has indicated an interest in the state or geographical area containing the proposed tower. If no response is received from a particular Indian tribe or NHO within a reasonable time (typically 30 days), the NPA requires that the non-responding Indian tribe or NHO be contacted a second time in an effort to obtain a response. If the Indian tribe or NHO continues to be unresponsive to the initial or follow-up inquiries, the FCC must be contacted to consult with the non-responding Indian tribe or NHO.

4.5.3 FCC Tower Construction Notification System

The TCNS is an Internet-based notification system developed by the FCC that allows input of basic information regarding the proposed location, type, and height of a new wireless telecommunications tower. This information is then made available to Indian tribes and NHOs that have expressed an interest in the state or geographical location containing the proposed wireless telecommunications tower via electronic or regular mail. According to the FCC the TCNS can be used as the initial contact to Indian tribes or NHOs.

Information regarding the proposed wireless communications tower was submitted to Indian tribes, NHOs, and SHPOs via the TCNS on February 19, 2015. The FCC assigned Notification I.D. #123566 to the notification submitted for this proposed wireless communications tower. The FCC sent an electronic mail notification to our office on February 27, 2015 listing the Indian tribes, NHOs, and SHPOs that were contacted through the TCNS regarding the proposed tower. As noted in Section 4.5.2, the NPA requires a response be obtained from each Indian tribe or NHO that has indicated an interest in the geographical area or state containing the site.

Environmental, Inc. used the list of Indian tribes that had defined their area of geographical interest on the FCC Internet web site, conversations with Tribal Historic Preservation Officers (THPOs), Internet web sites for many of the Indian tribes and Alaskan villages, and the *Encyclopedia of North American Indians* by Frederick E. Hoxie (published in 1996 by Houghton Mifflin) to determine which Indian tribes included in the TCNS list would be interested in this wireless telecommunications tower site. This review indicated that the following Indian tribes would have a potential interest in this wireless communications tower site: Choctaw Nation of Oklahoma, Coushatta Indian Tribe, Eastern Shawnee Tribe of Oklahoma, Jena Band of Choctaw Indians, Mississippi Band of Choctaw Indians, and the Tunica-Biloxi Indians of Louisiana. A description of the follow-ups to and responses from each of these Indian tribes are included in Sections 4.5.5.1 through 4.5.5.6. Copies of the TCNS notifications and list of Indian tribes and SHPOs are included in Appendix G.

It should be noted that the areas of interest for several Tribes changed from the time this report was begun until it was reviewed by FEMA. As a result, three additional Tribes – Alabama-Quassarte Tribal Town, Kialegee Tribal Town, and Seminole Nation of Oklahoma – are now interested in the area containing the site that were not included on the TCNS list for this location. Therefore, these additional Tribes were contacted by FEMA for comment. A description of the initial contacts and responses from these three Tribes are included in Sections 4.5.5.7 through 4.5.5.9.

4.5.4 State Historic Preservation Officer

MRS Consultants, LLC and Environmental, Inc. personnel completed the FCC Form 620 required for submittal to the SHPO and to those Indian tribes requesting additional information regarding the proposed wireless communications tower. MRS Consultants, LLC personnel satisfy the United States Secretary of the Interior's Professional Qualification Standards. A copy of the FCC Form 620 prepared for this site is included in Appendix H.

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According to MRS Consultants, "The lease area is identified as being within the boundaries of historic site 22Fo1506, a WWI Hospital Site. More specifically, the lease area sits on top of the spot where the WWI Red Cross facility once stood (McCarty Personal Communication 2015). The proposed tower site is severely disturbed by mechanical impacts activities and there is little chance for the presence of intact cultural deposits. However, considering the known location of 22Fo1056 and the potential for subsurface artifact and structural features, archaeological monitoring is recommended during the ground breaking and tower construction activities. In the event that cultural deposits are encountered, construction activities should halt until further direction from the MSARNG Archaeologist and the MDAH, which would likely require additional archaeological consulting and the mitigation of any identified cultural deposits or features...the proposed telecommunications project should have no adverse effect on any documented historic properties for direct effect provided that archaeological monitoring is conducted and any cultural deposits encountered during the construction activities are appropriated addressed as per the directions of MSARNG and the MDAH."

Background research identified two NRHP-listed properties within the APE. The two NRHP properties are also Mississippi Landmarks including the White House (Building 1071) and the WWI Ammunition Magazine (Building 6981). Seven historic properties are formally recognized NRHP eligible at Camp Shelby and include Buildings 688, 713, 766, 804, 886, 1071 (NRHP), and 6981 (NRHP). All of these fall within the 3/4-mile APE. All of the documented historic properties would have a view of the proposed tower. The NRHP-listed White House (Building 1071), the Chapel/Mess Hall (Building 804), and the infirmary (Building 886) would have the greatest visual impact due to the proposed tower site's close proximity to these resources. However, the existing telecommunications towers adjacent to the proposed location already compromise the setting, therefore, the addition of the newly proposed tower would unlikely constitute an adverse effect to any historic properties. Based on these findings and the FCC PA guidelines, the proposed telecommunications project would have *no adverse effect* upon documented historic properties for indirect effect as the setting does not retain integrity due to the existing towers and modern infill."

The FCC Form 620 was submitted to the Mississippi Department of Archives and History (MDAH) for review. Based on the review of this report, the MDAH responded via letter dated June 5, 2015 stating "We have reviewed your May 11, 2015, cultural resources assessment request and April 14, 2015, cultural resources survey report by Beth Ryba, Principal Investigator, received on May 14, 2015, for the above referenced undertaking, pursuant to our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800. After reviewing the information provided, we concur that the proposed tower will have no effect to archaeological resources listed in or eligible for listing in the National Register of Historic Places. We also concur that the proposed tower will not have a direct effect or an adverse visual effect (indirect effect) to known historic properties in the APE for visual effects based on the information presented. As such, we have no objections with the proposed project. There remains the possibility that unrecorded cultural resources may be encountered during the project. Should this occur, we would appreciate your contacting this office immediately in order that we may offer appropriate comments under 36 CFR 800.13." Copies of the correspondence to and from the MDAH are included in Appendix I.

4.5.5 Tribal Consultation

Environmental, Inc. followed up with each of the Indian tribes identified (as necessary) through a review of the TCNS listing provided by the FCC for this site. Sections 4.5.5.1 through 4.5.5.6 describe follow-up contacts to each of these Indian tribes and their responses. Sections 4.5.5.7 through 4.5.5.9 describe contacts to the three additional Tribes now interested in this area and their responses.

4.5.5.1 Choctaw Nation of Oklahoma

Mr. Joseph R. Wolf of the Choctaw Nation of Oklahoma responded via electronic mail on June 10, 2015 regarding TCNS #123566 stating “The Choctaw Nation of Oklahoma has reviewed the information provided on the proposed Camp Shelby Forrest & Lee Avenue (TCNS# 123566) Telecommunications Tower located in Camp Shelby, Forrest County, Mississippi. The Choctaw Nation of Oklahoma is unaware of any Choctaw cultural or sacred sites located within the immediate project area. The Choctaw Nation Historic Preservation Department concurs that there should be no adverse effect to any known historic properties and that work should proceed as planned. However, as the project is located in an area that is general historic interest to the Tribe, we request that work be stopped and our office contacted immediately if any Native American cultural materials or human remains are encountered.” Copies of the correspondence to and from the Choctaw Nation of Oklahoma are included in Appendix J.

4.5.5.2 Coshatta Indian Tribe

Dr. Linda Langley of the Coshatta Indian Tribe responded via letter dated June 3, 2015 regarding TCNS #123566 stating “At this time, I know of no known sacred or ceremonial sites in the immediate area, and do not require further Section 106 consultation on this project. However, if any cultural resources, such as, bone, pottery, stone tools, etc, are found during the construction phase we may elect to discuss additional mitigation steps, including on-site monitoring. In the event that archaeological properties or human remains are discovered during construction, please stop work and contact us immediately consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.” Copies of the correspondence to and from the Coshatta Indian Tribe are included in Appendix J.

4.5.5.3 Eastern Shawnee Tribe of Oklahoma

Ms. Robin Dushane of the Eastern Shawnee Tribe of Oklahoma (ESTO) responded via letter dated June 29, 2015 regarding TCNS #123566 stating “The Cultural Preservation Department of the Eastern Shawnee Tribe of Oklahoma has received the documentation for Environmental Inc.'s proposed telecommunications project, Lee and Forrest Avenue, located at UTM Zone 16, 287984.6 m E, 3453882.9 m N (WGS84) in/near Camp Shelby in Forrest County, MS. ESTO has reviewed the project, TCNS 123566, in accordance with Section 106 of the National Historic Preservation Act (NHPA). Based on the information provided and a review of our records, we concur that No Properties listed on or eligible for the National Register of Historic Places were identified within the Area of Potential Effect for direct effects, and the project will not impact any properties of sacred and/or cultural significance to the Tribe....This letter evidences NHPA and NEPA historic properties compliance pertaining to consultation with this Tribe in regard to the proposed project referenced as Lee and Forrest Avenue,

TCNS 123566. However, if during construction cultural objects or human remains are inadvertently discovered, please stop work immediately and contact the Cultural Preservation Department of the Eastern Shawnee Tribe of Oklahoma.” Copies of the correspondence to and from the Eastern Shawnee Tribe of Oklahoma are included in Appendix J.

4.5.5.4 Jena Band of Choctaw Indians

Ms. Lillie Williamson of the Jena Band of Choctaw Indians responded via TCNS on May 18, 2015 regarding TCNS #123566 stating “We are unaware of any sacred sites or significant cultural resources in this area. However, if the applicant discovers archaeological remains or resources during construction, the Applicant should immediately stop construction and notify the appropriate Federal Agency and the Tribe.” Copies of the correspondence to and from the Jena Band of Choctaw Indians are included in Appendix J.

4.5.5.5 Mississippi Band of Choctaw Indians

The TCNS listing (Appendix D) for this site included information from the Mississippi Band of Choctaw Indians states “If the applicant/tower builder receives no response from the Mississippi Band of Choctaw Indians within 30 days after you have e-mailed the [FCC Form 620]...then the Mississippi Band of Choctaw Indians has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder, however, must immediately notify the Mississippi Band of Choctaw Indians in the event archaeological properties or human remains are discovered during construction...” The Mississippi Band of Choctaw Indians was notified via electronic mail dated May 11, 2015 and the end of the 30-day period indicated by the Mississippi Band of Choctaw Indians was June 10, 2015. Environmental, Inc. has not received a response from the Mississippi Band of Choctaw Indians as of the date of this report. Therefore, it is our understanding that additional consultation with the Mississippi Band of Choctaw Indians is not necessary. A copy of the electronic mail submitted to the Mississippi Band of Choctaw Indians is included in Appendix J.

4.5.5.6 Tunica-Biloxi Indians of Louisiana

Mr. Earl Barbry of the Tunica-Biloxi Indians of Louisiana was contacted via electronic mail on May 3, 2005 regarding submittal of wireless telecommunications projects. Mr. Barbry responded via electronic mail on May 3, 2005 and indicated that he wanted to be notified regarding cell tower requests via electronic mail and that if he had not responded within 30 days of our contacting him, the project can proceed. We contacted Mr. Barbry regarding this site via electronic mail on May 13, 2015 and the end of the 30-day response period as indicated by Mr. Barbry was June 12, 2015. We have not received a response from Mr. Barbry as of the date of this report. Therefore, we have assumed that the Tunica-Biloxi Indians of Louisiana concur with the proposed project. Copies of the electronic mail to and from Mr. Barbry are included in Appendix J.

4.5.5.7 Alabama-Quassarte Tribal Town

Ms. April Cummings of FEMA contacted Mr. Pare Bowlegs, THPO for the Alabama-Quassarte Tribal Town, via letter dated October 9, 2015 regarding the proposed project. No response has been received from the Alabama-Quassarte Tribal Town as of the date of this report. Since this was a government-to-government consultation, no response within 30 days of the initial contact implies no interest for that Tribe. A copy of the correspondence to the Alabama-Quassarte Tribal Town is included in Appendix J.

4.5.5.8 Kialegee Tribal Town

Ms. April Cummings of FEMA contacted Mr. Henry Harjo, Environmental Officer for the Kialegee Tribal Town, via letter dated October 9, 2015 regarding the proposed project. No response has been received from the Kialegee Tribal Town as of the date of this report. Since this was a government-to-government consultation, no response within 30 days of the initial contact implies no interest for that Tribe. A copy of the correspondence to the Kialegee Tribal Town is included in Appendix J.

4.5.5.9 Seminole Nation of Oklahoma

Ms. April Cummings of FEMA contacted Ms. Natalie Harjo, THPO for the Seminole Nation of Oklahoma, via letter dated October 9, 2015 regarding the proposed project. No response has been received from the Seminole Nation of Oklahoma as of the date of this report. Since this was a government-to-government consultation, no response within 30 days of the initial contact implies no interest for that Tribe. A copy of the correspondence to the Seminole Nation of Oklahoma is included in Appendix J.

Based on the information presented above, the proposed communications facility would have no significant impact on cultural resources.

4.5.6 Inadvertent Discovery

The personnel that would have a potential to be involved in land-disturbing activities must be instructed to stop work immediately in the event of an inadvertent discovery of human remains or cultural or archaeological materials and contact FEMA and SHPO. A copy of this information must be provided to all personnel that would have a potential to be involved in land-disturbing activities at the site.

4.6 SOCIOECONOMIC CONCERNS

Under the no action alternative there would be no impact to socioeconomic resources.

No significant adverse impacts to socioeconomic resources, economic development, demographics, demand for public housing, or public services are anticipated. The emergency communications coverage provided by this project would benefit all populations in the coverage area.

4.6.1 Human Health and Safety

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Under the no action alternative, there could be adverse impacts to human health and safety because of a lack of adequate communication between emergency response personnel during an emergency event.

The results of a Phase I Environmental Site Assessment (ESA) conducted at the site by Environmental, Inc. for the Camp Shelby - Forrest Road Telecommunications Facility in March 2015 (EEI Project No.: TOW06P1501) indicated the possible presence of lead in site soils due to the age and unknown sand blasting and repainting activities of the former water tank located on or near the southwest corner of the site. Soil sampling activities have not been performed at the site at this time. This soil sampling should be completed prior to construction of the communications tower or proper Personnel Protection Equipment (PPE) should be worn by workers involved in ground disturbance activities near the southwest corner of the lease area in the immediate vicinity of the former water tank. The Phase I ESA is included in Appendix K. The equipment (including the emergency generator and associated propane/natural gas tank) that would be installed at the site would meet local, state, and federal regulations regarding hazardous materials. The antennae and equipment that would be installed at the site would meet local, state, and federal regulations regarding radiofrequency emissions. Lastly, this project is intended to provide better communications between emergency response personnel which would have a beneficial effect on human health and safety. Therefore, the proposed communications facility would have no significant impacts to human health and safety.

4.6.2 Environmental Justice

Section 1-101 of EO 12898 states “To the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Mariana Islands.”

Under the no action alternative there would be no impact to minority or low income populations.

No disproportionately high or adverse effects on minority or low-income populations are anticipated by development of the proposed communications facility. The proposed communications facility would benefit all populations in the project service area by providing better communications between emergency service personnel.

4.6.3 Noise

Noise is generally described as unwanted sound. Sound becomes unwanted when it either interferes with normal activities such as sleeping, conversation, or disrupts or diminishes one’s quality of life.

Under the no action alternative there would be no noise generation.

Short-term noise generation is anticipated to result from grading and construction activities. Long-term noise generation is anticipated to be minimal and to result primarily from equipment used to cool electronic components and from testing or operation of an emergency generator at the site. However, the generator would only operate briefly when tested, and during power failure events affecting the electrical power supply to the site. Therefore, the proposed communications facility would not generate significant noise.

4.6.4 Infrastructure, Utilities, Transportation, and Waste Management

Under the no action alternative there would be no impact to infrastructure, utilities, transportation, or waste management.

No significant impacts are anticipated to infrastructure, utilities, transportation, or waste management from the proposed communications facility. Traffic to and from the site would be minimal and would be associated with maintenance and repair of equipment at the site. Minimal waste would be generated at the site during maintenance activities. All waste generated at the site would be disposed of in compliance with federal, state, and local regulations. The project is intended to provide enhanced communications services for emergency response personnel. This could have a beneficial effect on the ability to identify and correct problems with infrastructure, utilities, transportation, and waste management.

4.6.5 Aesthetics and Visual Impacts

Under the no action alternative there would be no aesthetic or visual impacts.

The proposed tower would not be equipped with high intensity white lighting.

Lastly, the site is not located within the boundaries of any state or national park, or wildlife management area. No city or other community parks are depicted within 1,000 feet of the proposed project on the USGS Topographic Quadrangle "McLaurin, Mississippi," (Figure 3). The site is located on an existing Department of Defense training center. However, the site currently has a temporary guyed communications tower and self-supporting communications tower in the immediate vicinity of the proposed communications facility. Therefore, the proposed communications facility would have no significant impacts to aesthetics and visual resources.

4.7 CUMULATIVE IMPACTS

Under the no action alternative there would be no cumulative impacts.

Cumulative impacts are an incremental impact on either the natural environment or human environment by an action when added to past and anticipated future actions. No ongoing or proposed actions are known for the project area. According to information available through the FCC Antenna Structure Registration (ASR) System Internet website, there are 3,313 registered towers in the state of Mississippi (generally only those towers over 200 feet in height are included in this database). Construction of the

towers comprising the MSWIN network would result in an increase of approximately 4.25% in the number of towers in the state of Mississippi. As described in Section 1.0 of this document, the proposed tower is designed to allow collocation of up to three additional cellular-type service providers, thereby potentially reducing cumulative impacts as new/changing technologies and increased demand for service, both public and private, create more pressure on existing infrastructure.

The statewide MSWIN program would not have cumulative impacts on geology, air quality, noise, water resources, cultural resources, fish and wildlife, threatened or endangered species, vegetation, or socioeconomics. However, cumulative impacts to migratory birds may result from the MSWIN program, as birds could be injured or killed by colliding into the tower structure, or could be disoriented by the tower lighting. FEMA has worked with MWCC and MDWFP to develop an Avian Mitigation Plan (Appendix F) to address this potential for cumulative impacts to birds. The mitigation is outlined in Section 4.4.2 of this report.

Table 1: Summary of Impacts

Resource	Impact Level	Mitigation/Best Management Practices
Geology	No Significant Impact	None
Prime/unique farmland; farmland of statewide or local importance	No Significant Impact	None
Air Quality	No Significant Impact	Fugitive dust emissions from construction activities would be controlled by wetting the ground
Wild and Scenic Rivers	No Impact	None
Water Quality	No Significant Impact	Examples of BMPs that may be used during construction activities include, but are not limited to, silt fence, hay or straw bales, hay or straw mulch, gravel, erosion control blankets, and riprap
Wetlands	No Impact	None
Floodplains	No Impact	None
Coastal Resources	No Impact	None
Threatened and Endangered Species	No Impact	None
Migratory Birds	No Significant Impact	Tower lighting would be in accordance with USFWS recommendations; tower design would allow for future collocation; requirements of the Avian Mitigation Plan would be followed.
Wildlife and Fish	No Impact	None
General Vegetation	No Significant Impact	None
Cultural Resources	No Impact	If any human remains or cultural or archaeological materials are discovered, grantee would stop work immediately and contact FEMA and SHPO.
Socioeconomic Resources	No Significant Impact	None
Human Health and Safety	No Significant Impact	PPE to be worn – project would improve interoperable communications
Environmental Justice	No Impact	None – project would benefit all communities

Resource	Impact Level	Mitigation/Best Management Practices
Noise	No Significant Impact	None
Infrastructure, Utilities, Transportation, and Waste Management	No Significant Impact	None
Aesthetics and Visual Impacts	No Significant Impact	None

5.0 AGENCY COORDINATION, PUBLIC INVOLVEMENT AND PERMITS

The Forrest County Chancery Clerk was contacted regarding the proposed wireless communications tower via letter dated March 11, 2015. No response has been received from Forrest County as of the date of this report. A public notice was published in the *Hattiesburg American* on March 14, 2015 requesting comment regarding potential impacts to historical or archaeological properties by the proposed wireless communications tower. No comments have been received as of the date of this report in response to the public notice. Copies of the correspondence submitted to Forrest County and the public notice are included in Appendix L. In addition, notice of availability of this draft Environmental Assessment will be published in *The Clarion Ledger*.

6.0 LIST OF PREPARERS

- David R. Carroll, Environmental, Inc.
- Anne B. Gilbert, Environmental, Inc.
- Stephanie Madson, FEMA
- Frederick Holycross, FEMA

7.0 INFORMATION SOURCES

Completion of this Draft Environmental Assessment included utilization of the following sources:

1. Review of the portion of the 2013 aerial photograph depicting the site location available through Google Earth.
2. Review of the site survey prepared by SMW Engineering, Inc.
3. Review of information regarding National Scenic Trails, Mississippi Scenic Byways, and All-American Roads available on the Mississippi Department of Transportation Internet website.
4. State and county maps available through the Mississippi Department of Transportation Internet website.
5. Review of information regarding wild and scenic rivers in the vicinity of the proposed project available at <http://rivers.gov/>.

6. Review of the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission.
7. Correspondence with the United States Army Corps of Engineers regarding potential impacts to jurisdictional wetlands by the proposed project.
8. Review of information available at <http://www.fws.gov/wetlands/> regarding potential jurisdictional wetlands on or adjacent to the site.
9. A review of information available on the USFWS (www.fws.gov) Internet website, and on Nationalatlas (www.nationalmap.gov) regarding officially designated wilderness areas or wildlife refuges.
10. Correspondence with the USFWS regarding threatened and endangered species on or near the site.
11. Review of the FCC Form 620 prepared for the site by MRS Consultants, LLC and Environmental, Inc.
12. Correspondence with the Mississippi Department of Archives and History regarding historical resources and properties listed on or eligible for listing on the National Register of Historic Places on or near the site.
13. Review of the Tower Construction Notification System (TCNS) notice of organizations which were sent proposed tower construction notification information provided by the FCC.
14. Correspondence and conversations with representatives of the Choctaw Nation of Oklahoma, Coushatta Indian Tribe, Eastern Shawnee Tribe of Oklahoma, Jena Band of Choctaw Indians, Mississippi Band of Choctaw Indians, Tunica-Biloxi Indians of Louisiana, Alabama Quassarte Tribal Town, Kialegee Tribal Town, and the Seminole Nation of Oklahoma regarding wireless telecommunications projects.
15. Review of the portion of the FEMA Flood Insurance Rate Map depicting the site location regarding flood zone designations for the site.
16. Information regarding the MSWIN system provided by Towers of Mississippi II.
17. Soil information from the USDA's NRCS Web Soil Survey (<http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>) Internet website.

18. Correspondence with the USDA Natural Resource Conservation Service (NRCS) office in Jackson, Mississippi regarding impacts to prime farmland, unique farmland, and land of statewide or local importance.
19. A reconnaissance of the subject property.