

Draft Environmental Assessment

Meridian Forestry Wireless Communications Tower

Meridian, Lauderdale County, Mississippi

Mississippi Interoperable Communications Grant Program

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Prepared by:
Environmental Engineers, Inc.
11578 US Highway 411, Odenville, Alabama 35120

Phone: (205) 629-3868 • Fax: (877) 847-3060
Project No.: JSE01P1004

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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 a FEMA grant (2008-MS-MX-0001) and the State of Mississippi's expenditures 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

The National Environmental Policy Act (NEPA) requires that Federal agencies consider the environmental consequences of proposed actions before deciding to fund an action. The Council on Environmental Quality was established under NEPA to implement and oversee Federal policy in this process and implemented the procedural provisions of NEPA codified at 40 CFR 1500-1508. The intent of NEPA is to protect, restore, or enhance the environment through well-informed decision making. An Environmental Assessment (EA) related to a FEMA program must be prepared according to the requirements of the Stafford Act and 44 CFR Part 10. This EA has been prepared to evaluate the potential effects to the natural and human environment from construction of a new communications tower.

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 300-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.

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 location is depicted on the United States Geological Survey 7.5-minute Topographic Quadrangle “Meridian South, Mississippi,” dated 1971 and photorevised in 1982. The site is located in the northwest ¼ of the southeast ¼ of Section 14, Township 6 North, Range 16 East, Lauderdale County, Mississippi, at latitude 32° 21’ 46.170” north and longitude 88° 37’ 57.116” west (Figures 1 through 3). The site consists of a proposed 100-foot by 100-foot lease area and a proposed access road located off of East Fire Tower Road in Meridian, Lauderdale County, Mississippi 39301. The site is a portion of a grassed area containing several concrete slabs and slopes moderately to steeply down to the northeast. Proposed activities consist of construction of a 300-foot self-supporting communications tower and associated compound, enclosing the compound in a fence, placement of support equipment within the compound, and covering the compound with gravel.

The proposed tower facility would be accessed via locked gate off of East Fire Tower Road. The tower 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 2007 aerial photograph depicting the site layout has been included as Figure 4 and site photographs have been included as Figures 5 through 9. A copy of the site survey is included as Appendix A.

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 and reprinted 1985, the site is underlain by the Wilcox Formation of Tertiary Age. The Wilcox Formation consist of irregularly-bedded fine to coarse sand, more or less lignitic clay, and lignite; includes bauxite bearing Fearn Springs sand member at base. 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.

According to the USDA's Soil Survey of Lauderdale County, Mississippi, issued July 1983, site soils are classified as Arundel-Sweatman complex, eight to 12 percent slopes. This map unit consists of strongly-sloping Arundel and Sweatman soils in small areas that are too intermingled that mapping the soils separately was not practical. The surface layer of Arundel soil is dark grayish-brown sandy loam about four inches thick. The upper part of the subsoil is brown sandy loam to a depth of about ten inches. The lower part of the subsoil is yellowish-red clay to about 30 inches. The underlying material is stratified sandstone, siltstone, and buhrstone to a depth of 45 inches.

The surface layer of Sweatman soil is dark grayish-brown fine sandy loam about two inches thick. The subsurface layer is brown fine sandy loam to a depth of about five inches. The upper part of the subsoil is yellowish-red clay to about 26 inches. And the lower part is yellowish-red silty clay to about 38 inches. The underlying material is stratified shale and loamy material mottled in shades of brown, gray, and red to a depth of 65 inches.

Based on information available at the United States Department of Agriculture Natural Resource Conservation Service (NRCS) Web Soil Survey Internet website, Arundel-Sweatman complex, eight to 12 percent slopes is not classified as prime farmland.

In addition, EEI submitted information regarding the proposed project to the USDA NRCS office in Jackson, Mississippi via letter dated May 29, 2010. The NRCS responded via letter dated June 21, 2010 stating “No permanent conversion of farm land. No FPPA determination required.” Copies of the correspondence to and from the NRCS are included as Appendix B.

The proposed communications facility would have no impact on 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 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 the Rivers.gov 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 Mississippi. The County in which the site is located is more than 50 miles north of the DeSoto National Forest. Therefore, the proposed communications facility would have no impacts to 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 0.74 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 and Sensitive Vegetation Delineation

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 website (digital NWI map) 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 Digital National Wetlands Inventory map depicting the site location has been included as Figure 10.

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 9, 2010 by Environmental Engineers, Inc. No potential jurisdictional wetland indicators were noted on 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 returned response with a stamp dated May 14, 2010 which stated "A Department of the Army [USACE] permit will not be required for your project as proposed." 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 or sensitive vegetation.

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) "Panel 307 of 500, Lauderdale County, Mississippi and Incorporated Areas" effective date February 3, 2010, the site is located in Zone X (no shading) which is described as areas located 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 11.

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 125 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.

The proposed communications facility would not adversely affect federally-listed threatened or endangered species. Information regarding the proposed wireless telecommunications tower was submitted to the USFWS by Environmental Engineers, Inc. The USFWS responded via letter dated March 31, 2010 stating “There is one federally listed terrestrial species for Lauderdale County, the threatened Louisiana black bear (*Ursus americanus leteolus*) which inhabits large tracts of bottomland hardwood forests. Since the project footprint is small and the proposed site is not in a bottomland hardwood forest, the Service [USFWS] determines that this project will have no effect on listed species or critical habitat.” Therefore, the proposed communications facility would have no impact on

threatened or endangered species. Copies of the correspondence to and the response from the USFWS are included as 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).

As stated in Section 1.0, 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.

Based on this information and the mitigation measures to be implemented, the proposed communications facility would have no significant impact 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 the Wilderness.net Internet website, two wilderness areas are located in Mississippi – Black Creek Wilderness and Leaf Wilderness. The site is not located within the boundaries of, or adjacent to either wilderness area. 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 Internet website and at the Nationalatlas.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 currently consists of a grassed area containing concrete slabs, some pine saplings, and scrub vegetation. The total area of vegetation to be impacted at this site is approximately 0.74 acres. Therefore, the proposed communications facility would have no significant 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 on or eligible for listing on the National Register of Historic Places, and are defined as districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, 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 4.5.2 and FCC Form 620 is described in Section 4.5.3.

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 telecommunications tower was submitted to Indian tribes, NHOs, and SHPOs via the TCNS on March 25, 2010. The FCC assigned Notification I.D. #61935 to the notification submitted for this proposed wireless telecommunications tower. The FCC sent an electronic mail notification on April 2, 2010 listing the Indian tribes, NHOs, and SHPOs that were contacted through the TCNS regarding the proposed tower. As noted in Section 4.1, 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 Engineers, 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 telecommunications tower site: Alabama-Coushatta Tribe of Texas, Choctaw Nation of Oklahoma, Kialegee Tribal Town, Mississippi Band of Choctaw Indians, Seminole Tribe of Florida, 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 4.5.4.1 through 4.5.4.6. Copies of the TCNS notifications and list of Indian tribes and SHPOs are included in Appendix F.

4.5.4 State Historic Preservation Officer

MRS Consultants, LLC and Environmental Engineers, Inc. completed the FCC Form 620 required for submittal to the SHPO and to those Indian tribes requesting additional information regarding the proposed wireless telecommunications 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 G.

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 April 22, 2010 stating "...we concur that no cultural resources listed in or eligible for listing in the National Register of Historic Places will be directly or visually affected. Therefore, we have no reservations with the undertaking." Copies of the correspondence to and from the MDAH are included in Appendix H.

4.5.5 Indian Tribal Consultation

Environmental Engineers, 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 4.5.4.1 through 4.5.4.6 describe follow-up contacts to each of these Indian tribes and their responses.

4.5.5.1 Alabama-Coushatta Tribe of Texas

Mr. Bryant Celestine of the Alabama-Coushatta Tribe of Texas provided comment via electronic mail dated April 28, 2010 regarding TCNS #61935 stating “On behalf of Mikko Oscola Clayton Sylestine and the Alabama-Coushatta Tribe, our appreciation is expressed on your efforts to consult us regarding TCNS #61935 in Lauderdale County...Upon review of your April 7, 2010 submission, no known impacts to religious, cultural, or historical assets of the Alabama-Coushatta Tribe of Texas are anticipated in conjunction with this proposal. In the event of inadvertent discovery of human remains and/or archaeological artifacts, activity in proximity to the location must cease and appropriate authorities, including our office, notified without delay.” Copies of the correspondence to and from the Alabama-Coushatta Tribe of Texas are included in Appendix I.

4.5.5.2 Choctaw Nation of Oklahoma

Ms. Caren Johnson of the Choctaw Nation of Oklahoma provided comment via electronic mail on May 20, 2010 stating that “The Choctaw Nation of Oklahoma has reviewed cell tower(s) FCC # 61935 and based on the information provided to the best of our knowledge it will have no adverse effect on any historic properties in the project’s area of potential effect. However, should construction expose buried archaeological or building materials such as chipped stone, tools, pottery, bone, historic crockery, glass or metal items, or should it uncover evidence of buried historic building materials such as rock foundations, brick, or hand poured concrete, this office should be contacted immediately @ 1-800-522-6170 ext. 2137.” Copies of the correspondence to and from the Choctaw Nation of Oklahoma are included in Appendix I.

4.5.5.3 Kialegee Tribal Town

The TCNS listing (Appendix I) for this site included information from the Kialegee Tribal Town that states “If the Applicant receives no response from the Kialegee Tribal Town within 30 days after notification through TCNS, the Kialegee Tribal Town has no interest in participating in pre-construction review for the site. The Applicant, however, must immediately notify the Kialegee Tribal Town in the event archaeological properties or human remains are discovered during construction.” The TCNS notification for this site is dated April 2, 2010 and the end of the 30-day period indicated by the Kialegee Tribal Town was May 2, 2010. Environmental Engineers, Inc. has not received a response from the Kialegee Tribal Town as of the date of this report. Therefore, additional consultation with the Kialegee Tribal Town is not necessary.

4.5.5.4 Mississippi Band of Choctaw Indians

The TCNS listing (Appendix I) for this site included information from the Mississippi Band of Choctaw Indians that stated “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 April 7, 2010 and the end of the 30-day period indicated by the Mississippi Band of Choctaw Indians was May 7, 2010. No response has been received from the Mississippi Band of Choctaw Indians as of the date of this report. Therefore, 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 I.

4.5.5.5 Seminole Tribe of Florida

Ms. Jennifer Pietarila of the Seminole Tribe of Florida (STOF) provided comment via TCNS on April 9, 2010 in response to TCNS #61935 stating, “The STOF-THPO concurs with your findings of ‘no historic properties’. However, the STOF-THPO would like to be informed should any archaeological and/or historic resources be discovered inadvertently during the construction process.” Copies of the correspondence to and from the Seminole Tribe of Florida are included in Appendix I.

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 contact, the project could proceed. Mr. Barbry was contacted regarding this site via electronic mail on April 7, 2010, and the end of the 30-day response period as indicated by Mr. Barbry was May 7, 2010. No response was received from Mr. Barbry. Copies of the electronic mail to and from Mr. Barbry are included in Appendix I.

Based on the information presented above, the proposed communications facility would have no 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

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 EEI for the MSWIN 20610 communications tower site in March 2010 (EEI Project No.: JSE01P1004) did not indicate the presence of hazardous materials or petroleum products at the site at that time. 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 Phase I ESA is included in Appendix J.. 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 project will not impact national scenic or historic trails. No national scenic or historic trails are located in Lauderdale County, Mississippi.

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, national forest, 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 "Meridian South, Mississippi," (Figure 3). 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.

5.0 AGENCY COORDINATION, PUBLIC INVOLVEMENT AND PERMITS

The Lauderdale County Administrator was contacted regarding the proposed wireless communications tower via letter dated March 15, 2010. No response has been received from the Lauderdale County Administrator as of the date of this report. A public notice was published in *The Meridian Star* on March 31, 2010 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 letter submitted to the Lauderdale County Administrator and the public notice from *The Meridian Star* are included in Appendix K. In addition, notice of availability of this draft Environmental Assessment will be published in *The Clarion Ledger*.

6.0 CONCLUSIONS

No adverse environmental impacts are believed to be associated with the No-Action Alternative. However, the no-action alternative would result in a cost to the residents in the service area of this project associated with loss of integrated emergency communications service in the subject area. This cost must be compared to the potential adverse environmental impacts and social cost benefits associated with the Proposed Action. The proposed project (construction and operation of the proposed MSWIN 20610 communications facility) is the only feasible means of meeting the project objectives. The potential impacts associated with the proposed action are summarized in Table 2 on the following page.

Table 2. Summary of Impacts				
Resource	No Impact	No Significant Impact	Significant Impact	Mitigation/Best Management Practices
Geology		X		None
Prime/unique farmland; farmland of statewide or local importance	X			None
Air Quality		X		Fugitive dust emissions from construction activities would be controlled by wetting the ground
Wild and Scenic Rivers	X			None
Water Quality		X		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 and Sensitive Vegetation	X			None
Floodplains	X			None
Coastal Resources	X			None
Threatened and Endangered Species	X			None
Migratory Birds		X		Tower lighting would be done in accordance with USFWS recommendations; tower would not use guy wires; and tower design would allow for future collocation
Wildlife and Fish	X			None
General Vegetation		X		None
Cultural Resources	X			If any human remains or cultural or archaeological materials are discovered, grantee would stop work immediately and contact FEMA and SHPO.
Socioeconomic Resources		X		None
Human Health and Safety		X		None – project would improve interoperable communications
Environmental Justice	X			None – project would benefit all communities
Noise		X		None
Infrastructure, Utilities, Transportation, and Waste Management		X		None
Aesthetics and Visual Impacts		X		None

7.0 LIST OF PREPARERS

This Draft Environmental Assessment was prepared by Anne B. Gilbert and Henry A. Fisher of Environmental Engineers, Inc. Copies of the preparers' resumes are included in Appendix L.

8.0 INFORMATION SOURCES

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

1. Review of the portion of the 2007 aerial photograph depicting the site available through Maptech.
2. Review of the site survey prepared by SMW Engineering, Inc.
3. Review of information regarding National Scenic Trails 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 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 to and from the United States Army Corps of Engineers regarding potential impacts to jurisdictional wetlands by the proposed project.
8. A review of information available on the USFWS Internet website, at Nationalatlas.gov, and on Wilderness.net regarding officially designated wilderness areas or wildlife refuges.
9. Correspondence from the USFWS regarding threatened and endangered species on or near the site.
10. Review of the FCC Form 620 prepared for the site by MRS Consultants, LLC and Environmental Engineers, Inc.
11. Correspondence from 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.
12. Review of the Tower Construction Notification System Notice of Organizations Which Were Sent Proposed Tower Construction Notification Information provided by the FCC.

13. Correspondence and conversations with representatives of the Alabama-Coushatta Tribe of Texas, Choctaw Nation of Oklahoma, Kialegee Tribal Town, Mississippi Band of Choctaw Indians, Seminole Tribe of Florida, and the Tunica-Biloxi Indians of Louisiana regarding wireless telecommunications projects.
14. Review of the FEMA Flood Insurance Rate Map regarding flood zone designations for the site.
15. Information regarding the MSWIN system provided by Towers of Mississippi.
16. Soil information from the USDA's Soil Survey of Lauderdale County, Mississippi, issued July 1983.
17. Correspondence to and from 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.
18. A reconnaissance of the subject property.