

Draft Environmental Assessment

Orange County Interoperable Communications Tower

Port Security Grant Program Project # 2015-PU-00086 (30459)

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*Orange County, Texas
July 2016*



FEMA

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ACRONYMS AND ABBREVIATIONS

$\mu\text{g}/\text{M}^3$	Micrograms per cubic meter
ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effect
ASME	American Society of Mechanical Engineers
BMP	Best Management Practices
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dB	Decibel
dBA	A-weighted Decibel
DNL	Day-Night Average Sound Level
DHS	Department of Homeland Security
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESSS	Ecologically Significant Stream Segment
FAA	Federal Aviation Administration
FCC	Federal Communications Committee
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
GHz	Gigahertz
Hz	Hertz
MHz	Megahertz
mg/m^3	Milligrams per cubic meter
MBTA	Migratory Bird Treaty Act

NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHO	Native Hawaiian Organization
NHPA	National Historic Preservation Act
NO ₂	Nitrogen dioxide
NPA	National Programmatic Agreement
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O ₃	Ozone
OCEM	Orange County Emergency Management
Pb	Lead
PL	Public Law
PM	Particulate Matter
ppm	Parts per million
PSGP	Port Security Grant Program
PSIC	Public Safety Interoperable Communications
RF	Radio frequency
SHPO	State Historic Preservation Office
SO ₂	Sulfur dioxide
TCNS	Tower Construction Notification System
THC	Texas Historical Commission
THPO	Tribal Historic Preservation Officer
TPWD	Texas Parks and Wildlife Department
tpy	Tons per year
TxDOT	Texas Department of Transportation
TXNDD	Texas Natural Diversity Database
U.S.	United States
U.S.C.	United States Code
USCB	U.S. Census Bureau
USFWS	U.S. Fish and Wildlife Services
USGS	U.S. Geological Survey
VOC	Volatile Organic Compounds

1.0 INTRODUCTION

The Orange County Communications Tower project proposed by the Orange County Office of Emergency Management (OCEM) would provide for improved radio coverage in the Orange County area for various federal, state, and local disaster and emergency personnel as part of the South East Texas wide interoperability communications system project under the Department of Homeland Security (DHS)-Federal Emergency Management Agency's (FEMA) Port Security Grant Program (PSGP).

This Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500 through 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 OCEM's Proposed Action. FEMA will use the findings in this EA to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

2.0 PURPOSE AND NEED

Communications interoperability, as defined by the DHS SAFECOM program, "refers to the ability of first responders to communicate across jurisdictions and disciplines to support incident management when needed and as authorized."

OCEM operates and services the interoperable public safety communications system serving the Sabine Neches Waterway. There is a need to improve radio reception and reduce critical communications coverage gaps across the Sabine Neches Waterway, including its eastern and northern sections, and thereby improve public safety for residents, first responders, and motorists that travel US Highway 10.

The tower is proposed for funding under FEMA's Port Security Grant Program (PSGP). PSGP plays an important role in the implementation of the National Preparedness System by supporting the building, sustainment, and delivery of core capabilities essential to achieving the National Preparedness goal of a secure and resilient nation. The fiscal year 2015 PSGP is one of FEMA's grant programs that directly supports maritime transportation infrastructure security activities. PSGP is one tool in the comprehensive set of measures authorized by Congress and implemented by the Administration to strengthen the Nation's critical infrastructure against risks associated with potential terrorist attacks. The vast majority of U.S. maritime critical infrastructure is owned and operated by state, local, and private sector maritime industry partners. PSGP funds available to these entities are intended to improve port-wide maritime security risk management; enhance maritime domain awareness; support maritime security training and exercises; and to maintain or reestablish maritime security mitigation protocols that support port recovery and resiliency capabilities.

3.0 ALTERNATIVES

These following alternatives were considered to address the need for improved/reliable radio coverage in Orange County, Texas.

3.1 No Action

Under the No Action alternative, nothing would be done to improve signal strength and radio reception in Orange County. This alternative was considered unacceptable, as there is a clear need to improve public safety radio communications coverage along the Sabine Neches River in Orange County. Taking no action would allow this problem to persist; leaving residents and first responders in the western parts of the County within the current coverage pattern which does not provide for optimum reception.

The No Action alternative serves as the baseline to assess the likely impacts of the other project alternatives. The No Action alternative also would not address the needs of public safety officials or the citizens of Orange County.

3.2 Proposed Action

Under the Proposed Action, FEMA would fund the construction of a new 450 foot tall self-supported lattice communications tower at 675 East Railroad Street, Vidor, Texas 77662 (Latitude: 30.13002; Longitude: -94.00519). This strategically placed site, in an undisturbed field adjacent to the City of Vidor Police Department, would significantly improve communications coverage for Orange County and provide for more reliable interoperable communications for public safety first responders in support of their efforts to protect the public.

An 11-feet 8-inch by 26 feet by 6 inch reinforced concrete pad would be built at the base of the tower. A precast concrete shelter that is 11-feet 8-inches by 26 feet would be placed atop the reinforced pad. The shelter will have one room designated for mission critical emergency service radio equipment and the second room would house a diesel emergency backup generator to ensure the system is continuous. A diesel fuel tank would also be installed to provide fuel for the backup generator. The tower and the communications shelter would be enclosed inside a chain link fence within the compound measuring 70-feet by 80-feet by 6-feet. The enclosed area will be overlaid with gravel to slow the growth of vegetation. Under normal operations, the proposed tower and equipment would draw electricity from the local power supply, with the generator only being used in the event of a power outage. A schematic of the proposed tower can be found in the Appendices section (Figure 1); along with a view of the Proposed Action site plan (Figure 2).

3.3 Alternatives Considered and Dismissed

Other than the new tower location, there are no other viable communications towers on which OCEM equipment could be installed in this part of Orange County. Another option would be to build the new tower in another location but that would not reduce the coverage gap the proposed location would. Moving to another leased site was also dismissed because there are no other available towers in this part of the County. The site

selected for this new tower is the ideal location for effectively reaching hard-to-hit areas of the County.

4.0 Affected Environment and Potential Impacts

This section provides a detailed review of the proposed tower site and discusses the potential impacts that might result from the construction of a new communication tower at this location.

The proposed Orange County Emergency Management tower project would be located far west into Orange County in a rural, residential area of Vidor, Orange County, Texas. The proposed tower will be 8.4 miles northeast of the City of Beaumont on a plot of land that is owned by the City of Vidor at the intersection of East Railroad Street and Watts Street. Orange County is located in the Southeast corner of Texas and covers about 950 square miles. The County is bordered to the East by the State of Louisiana, Jefferson County to the South, Hardin County to the West, and Newton and Jasper County to the North. Orange County's population was approximately 84,260 according to the United States Census Bureau (USCB). The proposed Orange County Emergency Management tower site is located at an elevation of 22.05 feet Above Mean Sea Level (AMSL) [Figure 3]

4.1 Physical Resources

4.1.1 Geology, Soils, and Seismicity

The Proposed Action is not located on a unique geologic formation. Geology would not be affected by the Proposed Action and was not further evaluated.

Per the U.S. Geological Survey (2014) National Seismic Hazard Maps, the proposed tower location is within an area with a very low probability for seismic activity, therefore seismicity is not analyzed further in this EA.

The table below identifies the soil conditions in the area of interest for the Proposed Action tower site. The information was obtained from a soil analysis that was performed by Science Engineering, LTD. on November 30, 2015.

The area is fairly level and shows no indication of cross-lot runoff, wales or drainage flow. There are no active rills or gullies on or nearby the proposed project site. Prime and unique farmlands are protected under the Farmland Protection Policy Act (FPPA). The FPPA applies to prime and unique farmlands and those that are of state and local importance. 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 is also available for these uses. The land could be cropland, pastureland, rangeland, forestland, or other land but not urban built-up land or water.

According to the Natural Resources Conservation Service's Web Soil Survey, the soils located at the project site are not considered prime or unique farmland, and therefore the Proposed Action is not subject to review under the FPPA (NRCS, 2016).

Additional visualizations of the project site and distribution of area soils are found in the Appendices (Figure 4).

Stratum No.	Average Depth, feet	Description of Strata
I	0.00 – 4.00	Dark Gray SILTY CLAY (CL); Fill
II	4.00 – 15.00	Gray and Red CLAY (CH) with ferrous nodules
III	15.00 – 22.00	Gray and Tan Sandy Clay (CL) with sand seams
IV	22.00 – 32.00	Gray SILTY SAND (SM)
V	34.00 – 37.00	Gray SANDY CLAY (CL)
VI	37.00 – 57.00	Gray SILTY SAND (SM)
VII	57.00 – 77.00	Gray SAND (SP)
VII	77.00 – 85.00	Gray SANDY CLAY (CL)
IX	85.00 – 100.00	Gray and Tan CLAY (CH) with sand seams

Science Engineering, LTD. 2015

No Action Alternative – Under the No Action alternative, there will be no impact to geology, soils or seismicity.

Proposed Action – Under the Proposed Action, no impacts to geology or seismicity are anticipated.

Proposed Action site grading and excavating would temporarily cause soil disturbance and will have the possibility of soil erosion and surface runoff. The proposed project will result in the clearing of approximately 0.129 acres so a City of Vidor construction permit will be acquired. As a result, Best Management Practices (BMPs) would be used to reduce erosion and sedimentation.

There will be a negligible amount of permanent soil disturbance in that the project also involves the construction of a 11-foot 8-inch x 26-foot x 6-inch concrete pad will provide the foundation for the proposed mission critical communication equipment shelter with interior generator. The 80-foot x 70-foot fenced compound will contain the new telecommunications tower and communication equipment shelter and it will be overlaid with gravel to slow the growth of vegetation.

4.1.2 Air Quality

The Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards for pollutants considered harmful to public health and the environment. The Act established two types of national air quality standards: primary standards set limits to protect public health, including the health of “sensitive” populations such as asthmatics, children, and the elderly and secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. The current criteria pollutants are: Carbon Monoxide (CO), Nitrogen Dioxide (NO₂), Ozone (O₃), Lead (Pb), Particulate Matter (PM₁₀), and Sulfur Dioxide (SO₂).

A nonattainment area is an area considered to have air quality that is worse than the National Ambient Air Quality Standards (NAAQS), as defined in the Clean Air Act Amendments of 1970 (P.L. 91-604, Sec. 109). Nonattainment areas must develop and then implement a plan to reduce their pollutant levels and meet the NAAQS standard. The project area is well outside of any of the EPA-designated nonattainment areas in Texas; the closest such being Liberty County; a distance of over 70 miles from the Proposed Project site.

No Action Alternative – Under the No Action alternative, there would be no impacts to air quality because no construction would occur.

Proposed Action – Under the Proposed Action, no significant impacts to air quality are anticipated. Construction activities and emergency generator use are not expected to cause ambient air quality levels to notably increase at the proposed tower site. Due to the limited duration and frequency of generator use and short-term nature of construction activities, there would be no long-term adverse impacts on air quality.

Construction vehicle and equipment activities would be during normal working hours of 7:00 a.m. to 5:00 p.m., and would have minor, short-term impacts on air quality at and near the Proposed Action site. Due to the short-term duration of vehicle and equipment use and by properly maintaining and operating the vehicles and equipment, criteria air pollutants would not increase above accepted levels, resulting in no significant impact to air quality.

The Proposed Action would not result in the long-term operation of significant emission generating sources, nor would it significantly alter existing ambient air quality. The proposed emergency diesel-powered generator, located within the proposed tower site compound, would be an intermittent emission source. Generator frequency and duration of emissions would be limited due to the generator only being used during power outages and routine inspections. Also, federal regulations limit backup generator use to 500 hours per year.

As part of the site maintenance plan, the generator would be periodically tested to ensure it remains in good working order. The primary pollutant associated with the use of the generator would be CO emissions. CO is a colorless, odorless gas emitted from combustion processes which at extremely high concentrations may cause harmful health effects or death. For CO emissions, the EPA has set the 8-hour primary standard at 9 parts per million (ppm) and a 1-hour primary standard at 35 ppm. The backup generator would not exceed these standards.

4.1.3 Climate Change

“Climate change” refers to changes in Earth’s climate caused by a general warming of the atmosphere. Its primary cause is emissions of carbon dioxide and methane. The impact climate change may have on the proposed project area is uncertain and difficult to anticipate. Climate change is capable of affecting species distribution, temperature fluctuations, sea level dynamics, and weather patterns.

This project will create slight to imperceptible levels of greenhouse gases. The tower equipment would be powered primarily by electricity.

The back-up generator would be fueled with diesel and used only during power interruptions or maintenance checks. There may be some short-term emissions during the construction phase (from equipment and vehicle use). However, once construction is complete, operational emissions would be limited to the use of electricity (which powers the site's radios, lights, and environmental-controls of the site's equipment shed). The back-up generator would only be used for brief periods during power outages until electrical power can be restored.

The tower being installed as part of this project has been designed to withstand Orange County's climate extremes in accordance with the American National Standards Institute/ Telecommunications Industry Association (ANSI/TIA) 222-G; the national standards for Steel Antenna Towers and Antenna Supporting Structures; which is published by the Telecommunications Industry Association (TIA). The tower equipment would be maintained in an environmentally controlled shelter.

No Action Alternative - Under the No Action alternative, no impacts on climate change would occur.

Proposed Action - Under the Proposed Action, no impacts on climate change are anticipated. There may be a brief period of emissions during the project's construction phase from the use of construction equipment. The likelihood of further emissions would greatly diminish once the new tower site becomes operational. OCEM will ensure that the site's back-up generator is well maintained.

4.2 Water Resources

4.2.1 Water Quality

Sections 303(d) and 305(b) of the Clean Water Act (CWA) require all states to identify and characterize waters that do not meet, or are not expected to meet, water quality standards). The Texas Commission on Environmental Quality (TCEQ) is the regulatory agency responsible for compliance with water quality standards in Texas. The TCEQ's 2014 Integrated Report for CWA Sections 303(d) and 305(b) characterizes the quality of Texas surface waters and identifies those waters that do not meet water quality standards on the 303(d) list, an inventory of impaired waters (TCEQ 2014). Streams are classified by segment within their respective basin. There are two impaired segments near the project site: Segment 0511E Terry Gully to the east and Segment 0601 Neches River to the west. There are no surface water features in the immediate project area.

The major aquifer underlying the proposed project area is the Gulf Coast Aquifer. The Gulf Coast Aquifer is a major aquifer that parallels the coastline along the Gulf of Mexico. The aquifer is composed of discontinuous sand, silt, clay, and gravel beds. Water quality in the Gulf Coast Aquifer varies with depth and location and the water quality generally declines towards the coastline (Texas Water Development Board 2015).

The sole source aquifer protection program is authorized by section 1424 of the Safe Drinking Water Act of 1974. EPA defines a sole source aquifer as an aquifer that supplies at least 50 percent of the drinking water for the area overlying the aquifer. Texas only has one sole source, the Edwards Aquifer. Orange County is not located on Edwards Aquifer contributing zones; therefore, the proposed work would not impact sole source aquifers. There is a sole source aquifer adjacent to Orange County in Louisiana (the Chicot Aquifer), but the aquifers under Orange County have not been designated by EPA as sole source aquifers.

Impacts to water resources can result from several types of activities and procedures that would be in use at transmitting and receiving sites. Impacts would typically result from erosion caused by site runoff, direct contamination by chemicals used in the surrounding area that would be washed into body of water or absorbed into the water table, and building directly in or adjacent to a water resource (e.g., wetland).

No Action Alternative - Current water quality and hydrologic conditions would not be altered, and there would be no impacts to surface or groundwater quality under the No Action alternative.

Proposed Action – Ground disturbance depths for the proposed tower are not anticipated to be deep enough to impact groundwater. The groundwater in the project area is not subject to the sole source aquifer protection program under the Safe Drinking Water Act.

The two impaired water segments are several miles from the project site and there are no regulated surface waters in the immediate project area. Site grading and excavation would temporarily cause soil disturbance and surface runoff. The proposed project will result in the clearing of approximately 0.129 acres. BMPs would be used to reduce erosion and sedimentation to any surrounding water features.

Any impacts as a result of the Proposed Action would be minor, localized, and short-term in nature.

4.2.2 Wetlands and Waters of the U.S.

The U.S. Army Corps of Engineers regulates the discharge of dredged or filled material into waters of the U.S., including wetlands, pursuant to Section 404 of the Clean Water Act. Additionally, Executive Order (EO) 11990 [Protection of Wetlands] requires federal agencies to avoid, to the extent possible, adverse impacts of wetlands. There are no known wetlands within the designated project area. The project will not create any discharges or have any adverse effects or impacts on a wetland.

No Action Alternative – Under the No Action alternative, no impacts to wetlands would occur.

Proposed Action - Under the Proposed Action, no impacts to wetlands are anticipated; the proposed project site is not located in or immediately adjacent to a wetland.

4.2.3 Floodplains

EO 11998 (Floodplain Management) requires federal agencies to take action to minimize occupancy and modifications of the floodplain. Specifically, EO 11998 prohibits federal

agencies from funding construction in the 100-year floodplain unless there are no practicable alternatives. Flood Insurance Rate Maps (FIRMs) are used to identify the regulatory 100-year floodplain for the National Flood Insurance Program. FEMA's Preliminary FIRM map for the project area (48361C0020D, dated 08/30/2012) indicates that the proposed site is within an area of 500-year flooding, and it does not lie within the regulatory 100-year floodplain.

No Action Alternative – Under the No Action alternative, no impacts to a floodplain would occur.

Proposed Action – The Proposed Action is located outside of the 10-year floodplain and no impacts to floodplains are anticipated.

4.3 Coastal Resources

The Coastal Zone Management Act (CZMA) enables coastal states to designate state coastal zone boundaries and develop coastal management programs to improve protection of sensitive shoreline resources and guide sustainable use of coastal areas. The Texas Coastal Management Program is administered by the Texas General Land Office (GLO). The proposed project site lies just within the designated coastal zone of Texas. Under the CZMA, the GLO has the authority to conduct reviews on federal projects in order to determine if they are consistent with the state's coastal management plan.

No Action Alternative – Under the No Action alternative, no impacts would occur to coastal resources.

Proposed Action – Under the Proposed Action, no impacts to coastal resources are anticipated. However, OCEM is required to coordinate with the Texas GLO's Coastal Resources Division prior to starting work to ensure that the proposed activity, its associated facilities, and their probable effects comply with the relevant enforceable policies of the Texas Coastal Management Program, and that the proposed activity will be conducted in a manner consistent with such policies.

4.4 Biological Resources

4.4.1 Threatened and Endangered Species and Critical Habitat

In accordance with Section 7 of the Endangered Species Act (ESA) of 1973 the project area was evaluated for the potential presence of federally listed threatened and endangered species.

The ESA requires any federal agency that funds, authorizes, or carries out an action to ensure that their action is not likely to jeopardize the continued existence of any endangered or threatened species (including plant species) or result in the destruction or adverse modification of designated critical habitats.

The Texas Parks and Wildlife Department (TPWD) uses the Texas Natural Diversity Database (TXNDD) to manage and disseminate scientific information on rare species, native plant communities, and animal aggregations for defensible, effective conservation

action. Its purpose is to facilitate the design and implementation of ecologically sound development projects (TPWD 2015d).

Additionally, the TPWD designates Ecologically Significant Stream Segments (ESSS) for waters that display unique ecological value based on biological function, hydrologic function, riparian conservation areas, water quality, aquatic life, aesthetics, or habitat for threatened or endangered species (TPWD 2015b). The proposed project area is not located in or nearby a TPWD-designated ESSS.

The ESA also provides for the conservation of “critical habitat,” the areas of land, water, and air space that an endangered species needs for survival. These areas include sites with food and water, breeding areas, cover or shelter sites, and sufficient habitat to provide for normal population growth and behavior.

One of the primary threats to endangered and threatened species is the destruction or modification of essential habitat areas by uncontrolled land and water development. According to the USFWS’s Critical Habitat Portal (USFWS 2015a) website, there are no designated critical habitat areas for any endangered/threatened species in or nearby the proposed project site.

Appendix B lists those fish and wildlife species with a geographic range that includes Orange County and that are considered by USFWS to be threatened or endangered. These species include three birds (least tern, red knot, and piping plover) and one mammal (West Indian manatee). It should be noted that inclusion on the list does not imply that a species is known to occur in the study area, but only acknowledges the potential for occurrence. Per the USFWS Information, Planning, and Consultation System Report (Appendix B), the federally listed endangered and threatened birds that have the potential to exist in the project area, only need to be considered for wind energy projects. In addition, no critical habitat, as identified by the USFWS, exists within the project area.

Further, there is no indication that the parcel of land in which the proposed project site lies is inhabited by any of the animal, reptile, or insect species listed on the TPWD Annotated County List of Rare Species for Orange County. Given its location, the surrounding land uses, and type of vegetative cover, the area is considered to have limited value for harboring or supporting threatened or endangered wildlife species. Though no adverse effects are anticipated, measures would be taken to minimize ground cover disturbances to mitigate encroachments on local species habitat.

No Action Alternative - Under the No Action alternative, no impacts to threatened or endangered species would occur.

Proposed Action - FEMA has determined based on the scope of work, current land use, and site investigations, that the Proposed Action will have no effect on threatened or endangered species. In addition, critical habitat will not be adversely modified because there is none in the project area.

4.4.2 Wildlife and Fish

A “biotic province” is defined as a “geographic region characterized by the presence of one or more ecological associations that differ at least quantitatively from those of adjoining provinces and marked by a tendency to act as a center of ecological

dispersion.” The proposed project area lies within a biotic province classified as the Austroriparius Biotic Province (mapped by Blair [1950]). This classification is used to characterize the soil, climate, physiography, flora, and fauna of the area.

The Proposed Action site is inhabited by common small mammals, amphibians, insects, and other species typical in Orange County. There are no streams, creeks, or ponds in or in proximity to the proposed project site. Therefore, there were no fish or aquatic species available in the area to consider as part of this assessment.

The Migratory Bird Treaty Act (MBTA) protects birds that migrate across international borders and prohibits take of migratory bird species. Orange County lies within the migratory corridor for many bird species.

No Action Alternative - Under the No Action alternative, no impacts to wildlife and fish would occur.

Proposed Action - Under the Proposed Action, no significant impacts to wildlife and fish are anticipated.

Tower and site construction would include excavating and grading, which could temporarily affect individual common, small mammals, amphibians, insects, and other species. However, based on the limited area of disturbance associated with the proposed construction, any impacts would be temporary and limited to individuals. Proposed tower facility construction would not significantly impact overall populations of wildlife species.

Routine operations and maintenance would include mowing vegetation around the fenced compound. Mowing in these areas would maintain vegetation in early ecological successional stages of plant community development and may prevent reestablishment of some plant species. Similarly, normal tower site operations may lead to minor, local habitat degradation and occasional mortality of some wildlife or insect individuals.

Temporary noise generated by the emergency generator might disturb some wildlife species. This recurring, temporary low-level disturbance might exclude some wildlife or insect species, or promote colonization by disturbance-tolerant wildlife or insect species. However, all displaced species will be able to recolonize into similar habitat surrounding the tower site.

To mitigate the potential for collision-related bird mortality, the tower would be equipped with flashing lights in accordance with FAA regulations. In addition, the tower will not have guy wires, which, per USFWS voluntary guidelines (2015b), is preferred because it reduces the risk of bird collisions.

4.5 Cultural Resources

The Proposed Action’s potential effects on historic and archaeological resources were considered in compliance with the requirements of the National Historic Preservation Act (NHPA) Section 106 and 36 CFR Part 800 (Protection of Historic Properties). Historic properties are properties that are included in the National Register of Historic Places (National Register) or that meet National Register criteria.

The NHPA of 1966 is one of the federal environmental statutes implemented in the FCC’s NEPA rules. Under the NHPA, federal agencies are required to consider the effects of federal undertakings on historic sites. FCC licensees and applicants must comply with NHPA procedures for proposed facilities that may affect sites that are listed or eligible for listing in the National Register.

This process includes consultation with the relevant State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) to consider whether the proposed facility may create an adverse effect on an eligible or listed historic property. The Texas Historical Commission (THC) is the designated SHPO in Texas.

On October 23, 2009, the Advisory Council on Historic Preservation (ACHP) issued a Program Comment (PC) for “Streamlining the Section 106 Review for Wireless Communications Facilities Construction and Modification Subject to Review Under the FCC National Programmatic Agreement (NPA) and/or the NPA for Collocation of Wireless Antennas.” According to the ACHP PC, FEMA is not required to conduct and complete its own Section 106 review process (no duplication of effort). Therefore, the Section 106 review conducted for the FCC NEPA review is described in this EA.

In March 2005, the FCC implemented an NPA that established rules for Section 106 consultation with the SHPOs, THPOs or other appropriate tribal official for tribes without a THPO and Native Hawaiian Organizations (NHOs) that have been historically located in and/or have indicated interest in proposed communications facility sites; and public and local government involvement. To assist with the Section 106 review process, the FCC developed and instituted the Tower Construction Notification System (TCNS) using Form(s) 620 and 621.

Form 620 is used to submit site specific information and records of local government consultations with the SHPO and for American Indian Tribes with the THPOs for proposed new communications tower facilities. FCC Form 621 is used to submit site specific information and records of local government consultations with the SHPO for proposed collocations of antennas on existing communications towers or non-tower structures such as buildings, elevated water tanks, and electric transmission towers. In the case of the Proposed Action, Form 620 was used to submit the required information to the FCC.

The FCC TCNS website, at <https://wireless2.fcc.gov/ulsclogin/index.htm>, was utilized by OCEM, under its FCC Registration Number (FRN), to input the proposed new communications tower facility’s site specific information, including: location, structure type, and structure height with and without attachments. Information entered into TCNS was then made available to the applicable SHPOs and THPOs who expressed interest in a specified geographic area.

4.5.1 Historic Properties

ECS Texas consulted with the SHPO and THPOs during the development of this assessment to confirm whether or not this proposed project would have adverse effect on any cultural resources or historic properties.

The National Register of Historic Places (NRHP) on the National Park Service webpage did not indicate any potential historic sites within the search radius. Information was also reviewed on the THC Atlas Database and that review did not identify historical resources which would be expected to be impacted by the proposed project.

No Action Alternative - Under the No Action alternative, no impacts to cultural resources or historic properties would occur.

Proposed Action - Under the Proposed Action, no impacts to cultural resources are anticipated. The SHPO made a determination of “No Historic Properties Affected” in a letter dated April 26, 2016 (Appendix C). Though not anticipated, in the event that archaeological deposits, including any Native American pottery, stone tools, bones, or human remains, are uncovered, the project shall be halted and OCEM would stop all work immediately in the vicinity of the discovery and take reasonable measures to avoid or minimize harm to the finds. All archaeological findings would be secured and access to the sensitive area restricted. OCEM would inform FEMA immediately, FEMA would consult with the SHPO and any applicable THPO and Tribes. Work in sensitive areas would not resume until consultation is completed and appropriate measures have been taken to ensure that the project is in compliance with the NHPA.

4.5.2 American Indian/Native Hawaiian/Native Alaskan Cultural/Religious Sites

There is no evidence or accounts of any Native American cultural/religious sites being in or nearby the proposed project site. The US Department of Housing and Urban Development maintains a database identifying the Native American Tribes that may have a particular cultural interest in any county of the country (HUD 2015).

The Tribes having an interest in Orange County were contacted for comments or concerns through direct solicitation and via the FCC TCNS Section 106 Filing system. Those tribes included the Kiowa Indian Tribe of Oklahoma, the Wichita and Affiliated Tribes, the Tonkawa Tribe, the Alabama-Coushatta Tribe of Texas, the Apache Tribe of Oklahoma, the Eastern Shoshone Tribe, the Coushatta Indian Tribe, the Jena Band of Choctaw Indians, the Cherokee Nation, the Mescalero Apache Tribe, and the Northern Cheyenne Tribe. The tribes either did not respond, responded and indicated no interest in the project area, or responded with a concurrence of no historic properties affected. Tribal communication is found under Appendix D.

No Action Alternative - Under the No Action alternative, no impacts to American Indian religious or archaeological sites would occur.

Proposed Action - Under the Proposed Action, no impacts to American Indian religious or archaeological sites are anticipated.

While no Native American religious grounds or archaeological deposits are known to be in the area of the site, buried cultural materials may still be present. In the event that archaeological deposits, including any Native American pottery, stone tools, bones, or human remains, are uncovered, the project would be halted and OCEM would stop all work immediately in the vicinity of the discovery and take reasonable measures to avoid or minimize harm to the finds. All archaeological findings would be secured and access to the sensitive area restricted. OCEM would inform FEMA immediately, FEMA would consult with the SHPO and any applicable THPO, and Tribes. Work in sensitive areas would not resume until consultation is completed and appropriate measures have been taken to ensure that the project is in compliance with the NHPA. SHPO and tribal consultations have resulted in a determination that this Proposed Action will not result in a significant impact on sites that are culturally significant to Native Americans.

4.6 Socioeconomic Resources

4.6.1 Environmental Justice

EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) mandates that federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. This project is designed to improve first responder communications in the western parts of the County to enhance public safety for all area residents; regardless of ethnicity or income level. This project would help to ameliorate the intermittent radio reception that can occur in this part of the County and would provide a benefit to all residents within the service areas of the responder agencies that operate in the area.

No Action Alternative – Under the No Action alternative, there would be no beneficial impact on minority or low-income populations. However, all residents could potentially be adversely impacted by the vulnerabilities in the current coverage pattern if no action is taken.

Proposed Action – Under the Proposed Action, no disproportionately high and adverse impacts on minority or low-income populations are anticipated. The improved radio coverage would benefit all residents in the area by strengthening the ability of local first responders to communicate on a timely and accurate basis.

4.6.2 Hazardous Material

Hazardous materials are those substances defined by the Comprehensive Environmental Response, Compensation, and Liability Act, as amended by the Superfund Amendments and Reauthorization Act, and the Toxic Substances Control Act. The Solid Waste Disposal Act defines hazardous wastes. In general, both hazardous materials and waste include substances that, because of their quantity, concentration, physical, chemical, or

infectious characteristics, may present substantial danger to public health or to the environment when released or otherwise improperly managed.

To determine whether any hazardous waste facilities exist in the vicinity of the project area, or whether there is a known and documented environmental issue or concern that could affect the project site, a search for Superfund sites, toxic release inventory sites, industrial water dischargers, hazardous facilities or sites, and multi-activity sites was conducted using the EPA EnviroMapper.

The proposed project site will be developed on the City of Vidor property. According to the EnviroMapper, no hazardous sites, including Superfund, toxic release, industrial water dischargers, hazardous waste, or multi-activity sites, exist at the proposed tower site.

No Action Alternative – Under the No Action alternative, there would be no hazardous material impacts.

Proposed Action – Under the Proposed Action, no hazardous waste impacts are anticipated. A diesel fuel tank would be installed to provide fuel to the tower’s back-up generator. Any risks associated with the on-site storage of this material would be mitigated through the use of a properly designed tank, meeting American Society of Mechanical Engineers (ASME) standards; which is installed in accordance with 29 CRF and regularly inspected by OCEM staff to ensure the efficacy of the equipment.

Unusable equipment, debris and material generated by the project shall be disposed of in an approved manner and location. In the event significant items (or evidence thereof) are discovered during implementation of the project, OCEM shall handle, manage, and dispose of petroleum products, hazardous materials and toxic waste in accordance to the requirements and to the satisfaction of the governing local, state and federal agencies.

4.6.3 Noise

Noise is generally defined as unwanted sound. Sound is most commonly measured in decibels (dB) on the A-weighted scale, which is the scale most similar to the range of sounds that the human ear can hear. The Day-Night Average Sound Level (DNL) is an average measure of sound.

The DNL descriptor is accepted by federal agencies as a standard for estimating sound impacts and establishing guidelines for compatible land uses. EPA guidelines, and those of many other federal agencies, state that outdoor sound levels in excess of 55 dB DNL are “normally unacceptable” for noise-sensitive land uses such as residences, schools, or hospitals.

The Noise Control Act of 1972 (42 U.S.C. 4901) further states “that, while primary responsibility for control of noise rests with State and local governments, Federal action is essential to deal with major noise sources in commerce control which require national uniformity of treatment.” (EPA 1972). The purpose of the Act is “to establish a means for effective coordination of Federal research and activities in noise control, to authorize

the establishment of Federal noise emission standards for products distributed in commerce, and to provide information to the public respecting the noise emission and noise reduction characteristics of such products.”

The nearest facility to the proposed site is approximately ¼ mile to the Southeast of the proposed tower site. It is a police department which will have public safety vehicles whose noise output exceeds the noise levels that might be generated with the operation of the tower. In addition, the project area incurs noise from traffic on East Railroad Street and the railroad tracks to the south.

No Action Alternative – Under the No Action alternative, no impacts to noise would occur.

Proposed Action – Under the Propose Action, temporary short-term increases in noise levels are anticipated during construction. However, project construction will be carried out expeditiously to minimize the duration for potential noise. Except for the equipment shelter’s exterior HVAC equipment cooling unit and occasional interior backup power generator activation, the tower itself will not create noise. The low-level hum of the tower’s equipment would be nearly inaudible compared to the traffic sounds coming from East Railroad Street or the railroad tracks. There do not appear to be any noise sensitive land uses within sound range of the proposed site. The project would have nominal impact on sound levels in the area.

4.6.4 Traffic

Access to the proposed site would be through the Vidor Police Department secured parking lot which can be accessed by East Railroad Street or Watts Street in Vidor, Texas.

There are no Texas Department of Transportation (TxDOT) traffic counts available for Watts Street or East Railroad Street; however, based on observations, vehicle movement on Watts Street was very infrequent and East Railroad Street infrequent.

No Action Alternative – Under the No Action alternative, no impacts to traffic would occur.

Proposed Action – Under the Proposed Action, temporary short-term interruptions in normal traffic patterns may occur during the project’s construction phase. These disruptions to local traffic patterns during the construction phase should not last more than a few hours each day.

However, once construction is complete, there would be minimal traffic interference. In the long-term, the only traffic to the site would be OCEM and City of Vidor personnel conducting scheduled maintenance visits to the site, when repairs/adjustments have to be made to the tower equipment, and/or when the back-up generator’s diesel tank has to be refilled. This project will have little to no adverse effects or impacts on traffic patterns in or around the proposed project site.

4.6.5 Public Service and Utilities

One of the primary advantages of installing a new communications tower on the proposed site is the proximity of utilities; power lines run along the west and south boundaries of the proposed project site. The ready access to power would not only help to control the costs of running electricity to the tower's equipment shelter; it would also help to minimize the amount of environmental disturbance to the site. The electrical demands of the tower equipment will not overburden the electrical supply.

There are no other known public utilities in the area.

No Action Alternative - Under the No Action alternative, no impacts on public service or utilities would occur.

Proposed Action - Under the Proposed Action, no impacts on public service and utilities are anticipated. The proposed tower would draw electricity from the local power supply; but the amount of power used would be minimal. There are no other public services or utilities in the area that would be affected. Though none appear to exist at this time, before any construction work begins, the contractor will confirm once again that there are no buried petro-chemical lines under or nearby the proposed project site prior to the start of construction.

4.6.6 Public Health and Safety

The new communications tower would be equipped with repeaters and antennas to support land mobile radio use (for first responders) and microwave dishes to provide redundant roll-over capabilities for the Southeast Texas region's 9-1-1 system. This equipment may emit some levels of Radio Frequency (RF) and microwave radiation. The FCC describes RF and microwave radiation as follows.

Electromagnetic radiation consists of waves of electric and magnetic energy moving together (i.e., radiating) through space at the speed of light. Taken together, all forms of electromagnetic energy are referred to as the electromagnetic "spectrum." Radio waves and microwaves emitted by transmitting antennas are one form of electromagnetic energy. They are collectively referred to as "radiofrequency" or "RF" energy or radiation. Note that the term "radiation" does not mean "radioactive." Often, the terms "electromagnetic field" or "radiofrequency field" are used to indicate the presence of electromagnetic or RF energy.

The RF waves emanating from an antenna are generated by the movement of electrical charges in the antenna. Electromagnetic waves can be characterized by a wavelength and a frequency. The wavelength is the distance covered by one complete cycle of the electromagnetic wave, while the frequency is the number of electromagnetic waves passing a given point in one second. The frequency of an RF signal is usually expressed in terms of a unit called the "hertz" (abbreviated "Hz"). One Hz equals one cycle per second. One megahertz MHz equals one million cycles per second.

Different forms of electromagnetic energy are categorized by their wavelengths and frequencies. The RF part of the electromagnetic spectrum is generally defined as that

part of the spectrum where electromagnetic waves have frequencies in the range of about 3 kilohertz (3 kHz) to 300 gigahertz (300 GHz). Microwaves are a specific category of radio waves that can be loosely defined as radiofrequency energy at frequencies ranging from about 1 GHz to 30 GHz

The FCC goes onto describe the potential health effects of this type of energy.

Biological effects can result from exposure to RF energy. Biological effects that result from heating of tissue by RF energy are often referred to as "thermal" effects. It has been known for many years that exposure to very high levels of RF radiation can be harmful due to the ability of RF energy to heat biological tissue rapidly. This is the principle by which microwave ovens cook food. Exposure to very high RF intensities can result in heating of biological tissue and an increase in body temperature. Tissue damage in humans could occur during exposure to high RF levels because of the body's inability to cope with or dissipate the excessive heat that could be generated. Two areas of the body, the eyes and the testes, are particularly vulnerable to RF heating because of the relative lack of available blood flow to dissipate the excess heat load.

At relatively low levels of exposure to RF radiation, i.e., levels lower than those that would produce significant heating, the evidence for production of harmful biological effects is ambiguous and unproven. Such effects, if they exist, have been referred to as "non-thermal" effects. A number of reports have appeared in the scientific literature describing the observation of a range of biological effects resulting from exposure to low levels of RF energy. However, in most cases, further experimental research has been unable to reproduce these effects. Furthermore, since much of the research is not done on whole bodies (in vivo), there has been no determination that such effects constitute a human health hazard. It is generally agreed that further research is needed to determine the generality of such effects and their possible relevance, if any, to human health. In the meantime, standards-setting organizations and government agencies continue to monitor the latest experimental findings to confirm their validity and determine whether changes in safety limits are needed to protect human health.

The FCC's policies on RF exposure and categorical exclusion can be found in Section 1.1307(b) of the FCC's Rules and Regulations [47 CFR 1.1307(b)]. It should be emphasized, however, that these exclusions are not exclusions from compliance, but, rather, only exclusions from routine evaluation. Transmitters or facilities that are otherwise categorically excluded from evaluation may be required, on a case-by-case basis, to demonstrate compliance when evidence of potential non-compliance of the transmitter or facility is brought to the Commission's attention [see 47 CFR 1.1307(c) and (d)].

OCEM further confirms that the tower and all its associated antennas will comply with the RF exposure standards as provided within 47 CFR §§1.1310 and 2.1093.

No Action Alternative – Under the No Action alternative, no impacts on public health or public safety would occur.

Proposed Action – Under the Proposed Action, no significant impacts are anticipated. Low levels of RF would be emitted by the new communications tower but their impact on human health would be none to negligible. In order to mitigate any potential impact, OCEM will ensure that the tower antennas, microwave dishes, and associated equipment fully comply with the FCC’s RF emissions and exposure guidelines and standards.

This project would provide a significant benefit to public safety by enhancing the ability of the area’s first responders to communicate clearly and effectively when responding to public safety emergencies in Orange County.

4.7 Summary Table

The following section summarizes the findings/mitigation measures of this assessment.

Affected Environment	Impacts	Mitigation/BMPs
Geology, Soils, and Seismicity		
No Action	No impact	Not applicable
Proposed Action	No impacts are anticipated to geology or seismicity. Negligible permanent soil disturbance will occur as a result of the proposed project due to the ground cover applied to the interior of the tower compound and the installation of pads for the equipment shed and generator.	As needed, best management practices would be used during construction to prevent erosion. The amount of soil permanently disturbed will be kept to a minimum and will only include the 0.128 acres in the 70-foot x 80-foot compound tower compound.
Air Quality		
No Action	No impact	Not applicable
Proposed Action	Due to the limited duration and frequency that the emergency backup generator will be used and the short-term nature of construction activities, there would be no long-term adverse impacts on air quality.	OCEM would routinely maintain the generator to ensure it remains in good working order.
Climate Change		
No Action	No impact	Not applicable
Proposed Action	There are no anticipated impacts to the climate change. Brief periods of emissions may occur during construction but the potential for future emissions will be reduced once construction is completed.	The tower construction contractor and sub-contractors will ensure their equipment is in good working order to minimize emissions.
Water Quality		
No Action	No impact	Not applicable
Proposed Action	No impacts are anticipated; there is no surface water in the project area.	BMPs will be used during construction to mitigate the

		potential for run-off.
Affected Environment	Impacts	Mitigation/BMPs
Wetlands and Waters of the U.S.		
No Action	No impact	Not applicable
Proposed Action	No impacts are anticipated. The proposed project site is not located in or near to a wetland.	None.
Floodplains		
No Action	No impact	Not applicable
Proposed Action	No impacts are anticipated. The project site is not located within a regulated floodplain.	None.
Coastal Resources		
No Action	No impact	Not applicable
Proposed Action	No impacts are anticipated. The project is located within Texas’s coastal zone management area.	OCEM must coordinate with the Texas GLO’s Coastal Resources Division prior to starting work.
Threatened and Endangered Species and Critical Habitats		
No Action	No impact	Not applicable
Proposed Action	No impacts are anticipated. Though certain listed species are thought to inhabit the County; none are known to inhabit or frequent the proposed site. The proposed project site is not adjacent to or nearby an Ecologically Significant Stream Segment or identified Critical Habitat area.	None.
Wildlife and Fish		
No Action	No impact	Not applicable
Proposed Action	There will be no habitat clearing. Any low-level disturbances created by construction will be temporary. No significant impacts to wildlife, fish, or migratory birds are anticipated.	Though no adverse effects are anticipated, measures would be taken to minimize ground cover disturbances to mitigate encroachments on local species habitat. The tower will be equipped with flashing lights in accordance with FAA regulations.
Historic Properties		
No Action	No impact	Not applicable
Proposed Action	No impacts are anticipated. The proposed project site is not listed as a historic property.	If historic or archaeological materials are discovered during construction, all ground disturbing

		activities shall cease and FEMA/THC and tribes will be notified.
Affected Environment	Impacts	Mitigation/BMPs
American Indian/Native Hawaiian/Native Alaskan Cultural/ Religious Sites		
No Action	No impact	Not applicable
Proposed Action	No impacts are anticipated. There are no documented Native American religious sites on or around the proposed project site.	If historic or archaeological materials are discovered during construction, all ground disturbing activities shall cease and FEMA/THC and tribes will be notified.
Environmental Justice		
No Action	No impact	Not applicable
Proposed Action	No adverse impacts are anticipated. This project would provide universal benefits to all residents in Orange County. No groups would be disproportionately impacted by the project.	None.
Hazardous Material		
No Action	No impact	Not applicable
Proposed Action	No impacts are anticipated. No evidence of hazardous material on or nearby the proposed site. Diesel fuel used for the emergency backup generator will be properly stored.	Diesel would be stored and well-maintained in an ASME-complaint tank. Debris will be disposed of in an approved manner and location. OCEM shall handle, manage, and dispose of petroleum products, hazardous materials and toxic waste in accordance to the requirements and to the satisfaction of the governing local, state and federal agencies.
Noise		
No Action	No impact	Not applicable
Proposed Action	Short-term effects may occur during construction but no significant long-term impacts are anticipated.	Project construction will be carried out expeditiously to minimize the duration for potential noise.
Traffic		
No Action	No impact	Not applicable
Proposed Action	No short-term effects or long term effects are anticipated to occur during construction.	Equipment would be located out of traffic lanes during construction.
Public Service and Utilities		

No Action	No impact	Not applicable
Affected Environment	Impacts	Mitigation/BMPs
Proposed Action	May be some short-term effects during construction but no long-term impacts anticipated.	Contractor will verify the potential presence of any underground lines before excavating.
Public Health and Safety		
No Action	No impact	Not applicable
Proposed Action	No significant impacts are anticipated. Low levels of RF would be negligible. Project would provide a benefit by enhancing communication of first responders.	OCEM will ensure that the tower antennas, microwave dishes, and associated equipment fully comply with the FCC’s RF emissions and exposure guidelines and standards.

5.0 Cumulative Impacts

Cumulative impacts are those effects on the environment that result from the incremental effect of an action when added to past, present, and reasonably foreseeable future actions. Regardless of what agency (Federal or Nonfederal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

No other tower construction projects or other large construction projects were identified as occurring in the project area in the foreseeable near-term future. Because federally funded tower projects could be proposed anywhere within the 50 states, 5 territories, and the District of Columbia and specific projects sites have not yet been identified, it is difficult to predict the cumulative effects of this project when combined with other potential but yet unknown projects. It is possible that additional development resulting from normal population growth in the project area could result in the co-location of other antennas on the proposed tower. In general, co-location of equipment is seen as less impactful to environmental resources as it reduces the amount of ground disturbance and minimizes potential obstructions to migrating species. On a larger scale, cumulative impacts resulting from such co-location are not expected to be significant because of the geographically dispersed nature and scale of communication tower projects.

The Proposed Action would not have any significant, adverse cumulative impacts on any resource described in this EA. The Proposed Action’s purpose is to meet OCEM’s current radio coverage needs in Orange County and along the Sabine Neches Waterway; and the need is to better protect the lives, property, environmental quality, and quality of life for approximately 84,260 people.

6.0 Agency Coordination, Public Involvement and Permits

The Orange County Emergency Management and the City of Vidor Police Department were consulted with regard to the placement of this new communications tower and how it would help

to resolve some of the first responder communication's issues in the County. The agencies listed below were also contacted for comment on the proposed project.

- Texas Historical Commission
- US Fish and Wildlife Service
- Federal Aviation Administration
- Federal Communications Commission

The availability of this EA will be advertised by public notice in the local weekly newspaper, The Vidor Vidorian. Copies of the EA will be available locally at the City of Vidor – City Offices between the hours of 9:00 am to 5:00 pm Monday through Friday. The public comment period will extend for a period of thirty (30) days. FEMA will consider and respond to all public comments in the final EA. If no substantive comments are received, the draft EA will become final, and a FONSI will be issued for the project. At this time, a public meeting is not planned because the proposed action is not considered controversial.

In accordance with applicable local, state and federal requirements, OCEM is responsible for obtaining any necessary permits or approval prior to commencing construction at the proposed project site or operating the tower, including any that are required by the FCC and FAA. On March 3, 2016, the FAA issued a Determination of No Hazard to Air Navigation for the Proposed Action. On June 23, 2016 the FCC issued an ASR number for the Proposed Action with registration number 1299632.

7.0 Mitigation

To the extent possible, OCEM will use all feasible means available to minimize and/or mitigate the adverse effects and impacts of this project on the environment and the residents of Orange County. Specific measures that will be taken are listed in the table in Section 4.7 of this EA. Concurrently, OCEM would work to optimize the benefits of this project to enhance the public safety improvements for the good of the County's residents and first responders.

BMPs and measures to be implemented to mitigate potential impacts will include:

- BMPs would be used to reduce erosion and sedimentation. BMPs may include, among others: wetting soil to reduce dust and erosion and installing silt and sediment control fences
- The amount of soil permanently disturbed will be kept to a minimum and will only include the approximate 0.128 acres of land within the 70-foot x 80-foot tower compound.
- Vehicles and equipment used will be properly maintained.
- Measures would be taken to minimize ground cover disturbances to mitigate encroachments on local species and habitats.
- BMPs would be utilized during construction to minimize potential for disturbance or conflict with migratory birds and to avoid or minimize habitat loss.
- The tower would be equipped with flashing lights in accordance with FAA regulations.
- If historic or archaeological materials are discovered during construction, all ground disturbing activities shall cease and FEMA/THC will be notified.
- Diesel fuel would be stored and well-maintained in an ASME-compliant tank.

- Project construction will be carried out expeditiously to minimize the potential for noise.
- Equipment would be located out of traffic lanes during construction
- Contractors will verify the potential presence of any underground lines before excavating.
- OCEM will ensure that all application provisions of 47 CFR §1.1307(b), §§1.1310 and §§ 2.1093 are met.

8.0 References

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9.0 List of Preparers

This Environmental Assessment was prepared by the staff of Shaffer Tower Services on behalf of Orange County Emergency Management; aided by staff of Environmentex and ECS Texas, LLP. The leads for this Environmental Assessment were:

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10.0 Appendices

Figure 1: Proposed Action Tower Schematic

Figure 2: Proposed Action Site Plan

Figure 3: Proposed Action Site Topographic Map

Figure 4: Proposed Action Site Aerial View

Figure 5: Proposed Action Site Area Floodplain Map

Appendix A: Proposed Action Site Photos

Appendix B: USFWS: List of threatened and endangered species that may occur in
proposed project location, and/or may be affected by your proposed project

Appendix C: Proposed Action FCC Form 620

Appendix D: FCC Notice of Organizations That Were Sent Construction Notifications

Appendix E: FAA Determination of No Hazard to Air Navigation

Appendix F: Proposed Action Preliminary Site Documents

Appendix G: USFW Migratory Bird Review