Environmental Assessment
For
Stanislaus Regional 9-1-1

90-Foot Guyed Telecommunications Tower

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Executive Summary

This executive summary is provided for convenience only and should not substitute review of the complete report, including all figures and appendices.

The proposed action is identified as the 1010 10th Street Tower. The tower is classified as a new transmission and receiving site, which consists of the proposed construction of a 90-foot guyed tower. The tower will be constructed on top of an existing government building in downtown Modesto, California. There will be no ground disturbance. The property surrounding the site is dominated by commercial businesses in a developed portion of Modesto. Figure 1 shows a vicinity map of the area and photographs of the proposed project site.

The proposed tower site is located at N37º 38.487 Latitude and W121° 0.006 Longitude (NAD83), on top of the building at 1010 10th Street in Modesto, California as shown on the USGS Salida and Riverbank 7.5 Minute Series Topographic Map dated 1987 which is depicted in Figure 2.

The proposed tower will be located on city owned property. Since this is a developed area of Modesto, there is no need for an extension of existing utilities. Figure 3 shows an aerial view of the proposed project site.

The proposed project site will allow for the following:

- Provide a single system approach to law enforcement and other public safety agencies within Stanislaus County
- Provide for interoperability between law enforcement agencies, and between law enforcement and other participating agencies
- Enhance officer safety by improving in-building penetration, talk in, and talk out effectiveness for officers using handheld radios
- Upgrade backbone infrastructure equipment which is beyond its service life, and also not usable after the narrow banding mandate deadline of January 2013
- Provide a system which is APCO Project 25 compliant. (APCO P-25 compliance is required for all public safety radio systems purchased with grant funding).

The proposed action will not involve any of the unusual risks or impacts to sensitive areas identified in Section 4 that would require a site-specific EA. Therefore, the proposed action would warrant the issuance of a FONSI to cover those actions for which no significant impact has been determined.

In addition to the Public Safety Interoperability Communications (PSIC) Grant Program screening, any new tower construction is required to undergo FCC National Environmental Policy Act (NEPA) Land Use screening in accordance with 47 CFR Section 1.1307 (a) (1) through (8) to determine whether any of the listed FCC special interest items would be significantly affected if a tower structure and/or antenna and associated equipment were constructed at the proposed site location. Based upon the
available data assembled for this Environmental Assessment, there does not appear to be evidence that would suggest NEPA environmental concerns exist for the proposed action. No FCC special interest items were identified that would require a site-specific EA to be prepared.
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Section 1- Introduction

Introduction

The proposed project consists of constructing a 90 foot guyed tower on top of 1010 10th Street- a 101 foot government building in downtown Modesto (See Figure 1). This building was constructed in 1999 and has been the seat of government for both the City of Modesto and the County of Stanislaus.

Purpose and Need

The purpose of the proposed communications tower is to modernize and greatly enhance radio communications amongst public safety personnel, especially law enforcement personnel within the city of Modesto and greater Stanislaus County.

This project would establish a six-site 800 Megahertz trunked radio system. This system would initially be used by law enforcement personnel. As the system is fully built out all public safety personnel and much of public works within the county would be migrated to this system.

Currently law enforcement agencies within Stanislaus County operate on three different radio bands, and two different technologies. Law enforcement agencies within the county cannot directly communicate with one-another as the systems are dissimilar and thus not technologically compatible. When the need for interoperability arises the agencies are ‘patched’ together via a console gateway. While allowing communication, this method removes two radio channels and one dispatch console from general use during the course of the ‘patch’. Besides being inefficient, this approach also takes time to authorize and initiate.

Additionally, the backbone infrastructure hardware of the radio system being used by the Modesto Police Department is between ten and thirty years old and in need of replacement. Due to its age, this equipment is only partially narrow-band capable and as of January 2013, the F.C.C. is mandating narrow banding of 150 and 450 Meghertz radio systems. In order to be in compliance with the F.C.C. regulations, this backbone infrastructure hardware must be replaced.

Furthermore, officers are also challenged by limitations on in-building radio signal penetration both for talk-out (speaking from dispatch to officers) and talk-in (speaking from officers in the field to dispatch).

This new project, funded in part by the Department of Commerce Public Safety Interoperability Communications Grant Program and the Department of Justice Office of Community Oriented Policing, will address the following critical needs of our public safety agencies, and thus the residents of Stanislaus County:

- Provide a single system approach to law enforcement and other public safety agencies within Stanislaus County
• Provide for interoperability between law enforcement agencies, and between law enforcement and other participating agencies

• Enhance officer safety by improving in-building penetration, talk in, and talk out effectiveness for officers using handheld radios

• Upgrade backbone infrastructure equipment which is beyond its service life, and also not usable after the narrow banding mandate deadline of January 2013

• Provide a system which is APCO Project 25 compliant. (APCO P-25 compliance is required for all public safety radio systems purchased with grant funding).

In order for this system to be successful, the location of radio sites is paramount. The proposed site at 1010 10th Street in Modesto will be the master site for this project, housing the primary control equipment. We have chosen 1010 10th Street as the best choice for this master radio site for the following reasons:

• Location: It is central to both the city of Modesto and greater Stanislaus County. (The city of Modesto is the primary population base of Stanislaus County.)

• Signal propagation: Excellent location for both talk-in and talk-out. The height of the building and subsequent tower will give superior radio coverage in Modesto and the surrounding area. The downtown area will see vast improvements in communication where currently the close proximity of tall buildings creates interference.

• 1010 10th Street is jointly owned by the City of Modesto and the County of Stanislaus. This building serves as the "seat of government" for both entities. As a government owned and controlled building, this location provides enhanced security features lacking in other buildings of proportional height.

• This building is currently equipped with a backup power supply (generator), thus reducing the over all costs of the project and reducing the impact to environmental resources.

• As a government owned and controlled building, long-term operating costs will be kept to a minimum by eliminating lease fees.
Section 2- Proposed Action

Project Description

This public safety communications project when fully implemented will consists of 14 communications sites located throughout Stanislaus County. This system will use P25 digital, simulcast trunking format that will provide communications for all public safety agencies with in Stanislaus County, including police, fire, sheriff, medical, transportation and public works. Included in the project is a VHF two channels simulcast system that will be used for a county wide digital paging and fire agency alerting systems.

Planning for this project began in 2007 when a county wide communications study and engineering report was preformed by MACRO Corporation. The study evaluated current communications systems and sites around Stanislaus county and other neighboring counties. MACRO Corporation also preformed a communications needs assessment, then engineered and designed a system that would meet our needs and would be inter-operable with other adjacent counties. Included in the report was a plan to implement the system over time and in phases as funding is obtained.

The first phase of this project is to build out the current VHF main channels for County Fire and Sheriff’s Departments with a new multi-site simulcast system. This project will provide vastly improved radio coverage for these agencies and build up the communications sites for the P25 digital trunking system. The VHF radio system will be used in the future for a county wide digital paging and alerting system when these agencies are migrated over to the new P25 digital trunking system.

The first phase of the P25 trunking system will be installed along the Highway 99 corridor with sites in Turlock, Ceres and Modesto. This corridor contains the majority of the population in Stanislaus County and the majority of calls for public safety services. These three cities will be the first to migrate over to the new trunking system. As funding is acquired the trunking system will be expanded east and west of the 99 corridor, migrating agencies and cities over to the system as sites are completed.

A committee comprised of members from many different public safety agencies from around the county was formed to identify funding, plan and select the best radio system. The committee also prioritized construction phases, sites and equipment to be purchased and installed. Bids and proposals were sent out for a wide range of equipment and services, from radios, towers, shelters, microwave equipment to installation cost.

The proposed site at 1010 10th street will replace four existing sites in the down town Modesto area. The current sites at Modesto PD, Modesto Fire Station 1, County Jail and City Towers all have limited space, over loaded and aging towers that need to be replaced, no climate control for equipment and need up-grading to meet current communications specifications. By combining four sites into one new site will save money, operating cost and will reduce environmental impact by constructing the new 1010 10th street site and not up-grading the four existing sites. Plans are to install a new 90’ guyed tower on the roof and entry port in the existing room at 1010 10th street location. Install new AC power outlets off of existing UPS and back-up generator circuits.
Install grounding and cable management systems in the new communications room. Once the tower and communications room is complete, equipment from the four other downtown sites will be moved to the new 1010 10th street site starting with the microwave shot to Mt Oso and Dispatch center. The new VHF simulcast system and 700-800Mhz trunked system will be installed at this location also. This site will also house the master controller and prime site controller for the new trunking system. The site will be the main communications site for Stanislaus County. In addition we are currently working with San Joaquin County to share the master site controller and all associated cost.

Alternatives

One of the primary goals of this project was to co-locate equipment at existing city or county property or at existing communications sites. Thus reducing over all project cost, duplication of equipment and would allow sharing of back haul equipment and all operating and maintenance cost between different county and city agencies. Part of the communications study was devoted to location and assessment of communication sites with in Stanislaus County. One of the important factors in the report was the need for a site in downtown Modesto location in order to provide in-build radio coverage inside of heavily constructed buildings in the area. Several locations were evaluated in the downtown Modesto area some new and existing communications sites. (See figure 1)

- 1010 10th street (New site)
- City Parking Garage (New site)
- 12th & J st. Building (Existing site)
- Modesto Police Department (Existing site)
- Modesto City Fire Station #1 (Existing site)
- County Jail (Existing site)
- Double Tree Inn (Existing site)
- City Towers (Existing site)

Of these eight sites, six of them are already developed with a tower and communications room. None of the developed six sites has room on the tower to mount the required antennas or microwave dishes for this project or the tower would be over the maximum wind load rating. Also none of the developed sites has the required space in the communications room to install the new equipment. Other issues with these sites are a high radio frequency noise floor due to inter-modulation problems\(^1\), rusted towers and mounting brackets, lack of proper transmitter isolation. No or insufficient back-up power, lack of grounding and site installation standards. Because of these many issues these sites were eliminated as a communications site possibility. The two remaining sites are both un-developed sites and would require installation of a new tower. The City Parking garage site is completely un-developed and would require new room to be build, generator, UPS system and AC power installed. The 1010 10th street site has an existing room that can be used to house the equipment and has a back-up generator with enough capacity to power the equipment in the event of an outage. This site is jointly owned by the City of Modesto and Stanislaus County so security is good and has no site rental cost. The 1010 10th street site would require the least amount of new construction

\(^{1}\) Inter-modulation is a radio frequency phenomenon significantly effecting radio sites and associated systems causing loud noises on the channels audible to both console operators and subscribers, thus interfering with the effective use of the channel.
of the eight sites and would have the least environment impact. Based on these factors the 1010 10th street Modesto site is the logical site for this project.

Figure 1
Location of communication sites in downtown Modesto that were evaluated.
Section 3 – Existing Environment

This section provides information on the existing environment, or baseline conditions for those resource areas to be affected by the proposed action or alternatives, including No Action. This section provides a brief description of the physical setting for the proposed action.

Resource Areas:

Noise

Noise is defined as unwanted sound that interferes with normal human activities or wildlife behavior, or may otherwise diminish environmental quality (EPA, 1974). Noise can come from a variety of sources and may be classified as continuous or intermittent, persistent or occasional. Intensity and frequency determine the measurement and perception of sound. Intensity is a measure of the strength or magnitude of the sound vibrations. Many sound intensity measurements are made relative to a standard threshold of hearing intensity which is 1000 Hz for the human ear. This value has wide acceptance as a nominal standard threshold and corresponds to 0 decibels. Frequency of sound is the number of compressions that pass a fixed point per unit of time. The frequencies audible to the human ear vary in range from 1 to 100,000,000 (EPA, 1974). Although the range is wide, humans do not hear very low or very high frequencies as well as they do frequencies in the middle of the range.

Existing Conditions

As described in the Environmental Protection Agency’s compliment document to their 1974 “Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety” urban populations are exposed on a daily basis to noise levels between 50 to 60 dB.

The project site, located in downtown Modesto, Ca (Figure 3) exhibits typical traffic patterns for an urban environment.

Air Quality

The Clean Air Act provides the principal framework for national, state, and local efforts to protect air quality. Under the Clean Air Act, the Office of Air Quality Planning and Standards (OAQPS) is responsible for setting standards, also known as national ambient air quality standards (NAAQS), for pollutants which are considered harmful to people and the environment. OAQPS is also responsible for ensuring that these air quality standards are met, or attained (in cooperation with state, Tribal, and local governments) through national standards and strategies to control pollutant emissions from automobiles, factories, and other sources. The OAQPS has set standards for six principal pollutants, also called criteria pollutants. These pollutants are measured in parts per million (ppm) by volume, parts per billion (ppb) by volume, milligrams per cubic meter of air (mg/m³) and micorgrams per cubic meter of air (µg/m³). Table 1 lists the National Ambient Air Quality Standards.
Existing Conditions

The ambient air quality for Stanislaus County meets the NAAQS for Carbon Monoxide, Nitrogen Dioxide and Ozone. See Table 2. In regards to PM$_{10}$, according to the California Environmental Protection Agency's Air Resources Board, there were only six days in 2009 that exceed the state established limits and no days in which the national standards were exceeded at the monitoring site located at 14$^{th}$ St in downtown Modesto. In order to address this issue, the San Joaquin Valley Unified Air Pollution Control District has established Rule 8010- Fugitive Dust Administrative Requirements for Control of Fine Particulate Matter (PM$_{10}$) (Appendix A). The purpose of this regulation is to reduce the amount of fine particulate matter in the ambient air as a result of emissions generated from anthropogenic fugitive dust sources by requiring actions to prevent, reduce or mitigate PM$_{10}$ emissions. Under this regulation, permits are required only if any person constructing, altering, replacing or operating any source operation which emits, may emit or may reduce emissions.

Geology and Soils

Geological resources are described as the geology, soils, and topography that characterize an area. The geology of an area refers specifically to the surface and near-surface materials of the earth and to how those materials were formed. These resources are typically described in terms of regional or local geology, including mineral resources, earth materials, soil resources, and topography.

Descriptions of these resource areas include bedrock or sediment type and structure, unique geologic features, depositional or erosional environment, and age or history. Mineral resources include usable geological materials that have some economic or academic value. Soil resources include the unconsolidated, terrestrial materials overlying the bedrock or parent material and are typically described by their complex type, slope, and physical characteristics. Topography consists of the geomorphic characteristics of the land or sea floor surface, including the change in vertical elevation of the earth’s surface across a given area, the relationship with adjacent land features, and geographic location (USCG, 2006).

Soil resources also include prime and unique farmlands, which are protected under the Farmland Protection Policy Act of 1981 (FPPA) (P.L. 97–98, 7 U.S.C. §4201). 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 successfully producing crops. “Unique” farmland is defined as land that is used for the production of certain high-value crops, such as citrus, tree nuts, olives, and fruits. The Act requires Federal agencies to examine the potentially adverse effects to these resources before approving any action that would irreversibly convert farmlands to nonfarm uses. This examination is done in consultation with the Natural Resources Conservation Service (NRCS) of the U.S. Department of Agriculture (USDA), which will use a land evaluation and site assessment (LESA) system to complete a Farmland Conversion Impact Rating Form.
The Central Valley of California evolved during the Cenozoic era through the actions of plate tectonics, sea level change and climate (Bartow, 1991). The valley, a 700-km-long by up to 100-km-wide alluvial plain is situated between the Sierra Nevada Mountains on the east and the Coast Ranges on the west. The valley is further divided into the Sacramento Valley to the north and the San Joaquin Valley to the south. The project site is located in the San Joaquin Valley which occupies the southern two-thirds of the Central Valley. The valley is comprised of an asymmetric structural trough filled with a prism of Upper Mesozoic and Cenozoic sediments up to 9 km thick in the west-central part of the valley and at the south end. The basin-filling sediments rest on a westward-tilted block of crystalline basement composed of Sierra Nevada plutonic and metamorphic rocks under the eastern part of the valley and under the central and western parts of the valley lie mafic and ultramafic rocks of a presumed ophiolite of Jurassic age (Bartow, 1991) (See Figure 4).

The soils of the San Joaquin valley are characterized by claypan or hardpan in the older formations along high terraces and old fluvial fans. The oldest soils usually have claypan or hardpan layers at depths of 0.6 m or less (Burrow, Shelton, Hevesi and Weissmann, 2004). The younger soils are forming on the recently deposited alluvium along the stream bottoms and on recently exposed surfaces. These soils are generally deep and rich in nutrients (See Table 3).

The project site is located in downtown Modesto, on top of the building at 1010 10th Street with an urban setting of existing paved roads and commercial buildings.

**Water Resources**

Water resources are streams, lakes, rivers, and other aquatic habitats in an area and include surface water, groundwater, wetlands, floodplains, coastal resources, and wild and scenic rivers. Water resources—such as lakes, rivers, streams, canals, and drainage ditches—makeup the surface hydrology of a given watershed. The term “waters of the United States” applies only to surface waters—including rivers, lakes, estuaries, coastal waters, and wetlands—used for commerce, recreation, industry, sources of fishing, and other purposes.

The Clean Water Act (CWA), as amended, is the primary Federal law in the United States regulating water pollution (P.L. 92–500, 33 U.S.C. §1251). The CWA regulates water quality of all discharges into “waters of the United States.” Both wetlands and “dry washes” (channels that carry intermittent or seasonal flow) are considered “waters of the United States.” Administered by EPA, the CWA protects and restores water quality using both water quality standards and technology-based effluent limitations. The EPA publishes surface water quality standards and toxic pollutant criteria at 40 Code of Federal Regulations (CFR) Part 131. The CWA also established the National Pollution Discharge Elimination System (NPDES) permitting program (Section 402) to regulate and enforce discharges into waters of the United States. The NPDES permit program focuses on point-source outfalls associated with industrial wastewater and municipal sewage discharges. Congress has delegated to many States the responsibility to protect and manage water quality within their legal boundaries by establishing water quality standards and identifying waters not meeting these standards. States also manage the NPDES system. This responsibility is delegated through an application process defined by the CWA, which includes a public review, comment period, and
public hearing. The EPA renders a decision within 90 days of receipt of the application and may delegate full or partial responsibility for the NPDES program to the State or Territory. If the EPA does not approve the application, then the agency remains the permitting authority. Figure 3-5 shows the status of State NPDES program mandated by the CWA.

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The Coastal Zone Management Act of 1972 (CZMA) (16 U.S.C. §1451) provides States with the authority to determine whether activities of governmental agencies are consistent with federally approved State Coastal Zone Management Plans (CZMP). The intent of the CZMA is to prevent any additional loss of living marine resources, wildlife, and nutrient-enriched areas; alterations in ecological systems; and decreases in undeveloped areas available for public use.

EO 11988 (Floodplain Management) requires Federal agencies to determine whether a Proposed Action would occur within a floodplain and to take action to minimize occupancy and modification of floodplains. A floodplain is defined as the lowlands and flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands. At a minimum, areas designated as floodplains are susceptible to 100-year floods.8 EO 11988 requires that Federal agencies proposing to site a project in the 100-year floodplain must consider alternatives to avoid adverse effects and incompatible development in the floodplain. If no practicable alternatives exist to siting a project in the floodplain, the project must be designed to minimize potential harm to, or within, the floodplain. Furthermore, a notice must be publicly circulated explaining the project and the reasons for its siting in the floodplain.

**Existing Conditions**

The Modesto ground-water basin is made up of river flood plains, channels and overflow lands, low alluvial plains and fluvial fans and dissected uplands. See Figure 4. The local relief ranges up to 30 m in the form of dissected hills and gently rolling lands. A belt of coalescing fluvial fans of low relief forms the low alluvial plains and fans. River floodplains and channels occur as narrow, disconnected strips along the channels of major rivers. Three major rivers dissect the San Joaquin Valley: The Stanislaus River flows from Knights Ferry and Oakdale, along the low alluvial plains and fans near Riverbank to the confluence of the San Joaquin River near Vernalis; (2) The Tuolumne
River flows from La Grange to Waterford along the low alluvial plains and fans near Modesto to the confluence of the San Joaquin River near Grayson; and (3) The Merced River flows downstream from Merced Falls along the alluvial plains and fans near Livingston to the confluence of the San Joaquin River near Newman.

The project site is located in downtown Modesto on top of the building located at 1010 10th St. The surface elevation is approximately 90 feet above mean sea level with no indications of wetlands, floodplains or coastal management zones on the FEMA Flood Insurance Maps or the USGS 7.5 Minute Quadrangle Topographic Map for Salida and Riverbank (See Figure 2).

Annual rainfall in the Modesto area averages around 12 inches per year, with January being the wettest month (Modesto Irrigation District, 2010)

The closest surface water to the project site is Dry Creek, located approximately 1 mile to the west. Dry Creek is a free flowing, ephemeral stream originating in the Sierra Foothills and is dominated by agricultural return flows and drains. This river drains into the Tuolumne River near the Modesto city limits. This creek has carried extensive winter flood flows and has been rechanneled and leveed along its lower 12-mile reach through the city of Modesto. Dry Creek is part of the larger San Joaquin River Basin, which drains the portion of the Central Valley south of the Sacramento-San Joaquin Delta and north of the Tulare Lake Basin. The eastside Basin, which contains Dry Creek and the Tuolumne river were sampled twice monthly between January 2003 and March 2004 as part of the Central Valley Regional Water Quality Control Board’s Surface Water Ambient Monitoring Program (SWAMP). Approximately 30 sites were sampled for field parameters (EC, pH, temperature, DO and turbidity) and bacteria (total coliform and E. coli). Based on monitoring results, this stream has been identified as having good water quality.

**Biological Resources**

Biological resources are animals, plants, and their habitats that are native to an area, including threatened or endangered species. In general, biological resources can include native and introduced plants that comprise the various habitats, animals present in such habitats, and natural areas that help support these plant and wildlife populations. Protected or sensitive biological resources include plant and animal species listed as threatened or endangered by FWS, National Marine Fisheries Service (NMFS), or a State.

The Endangered Species Act (ESA) (16 U.S.C. §1531) requires Federal agencies to conserve endangered species by listing endangered and threatened species of plants and animals and designating the critical habitat for animal species. The ESA defines an endangered species as any species in danger of extinction throughout all or a significant area of its range and a threatened species as any species likely to become endangered in the near future. Under Section 7 of the ESA, Federal agencies, in consultation with FWS or NMFS, must ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species (i.e., a listed species) or to result in the destruction or adverse modification of critical habitat, defined as a specific geographic area that is essential for the conservation of a threatened or endangered species and that may require special management and protection (FWS, 2007). FWS
and NMFS are responsible for compiling the lists of threatened and endangered species. If a Proposed Action may adversely affect a listed species or critical habitat, the Federal agency must prepare a Biological Assessment (BA) and initiate a formal consultation with FWS or NMFS. After reviewing the BA, FWS or NMFS prepares a Biological Opinion stating whether the Proposed Action is likely to jeopardize the continued existence of a listed species or cause the destruction or adverse modification of critical habitat. The purpose of the consultation process is to ensure avoidance and minimization of potential adverse impacts on a listed species or critical habitats. Formal consultation is not required if the Federal agency determines, and FWS or NMFS concurs in writing, that the Proposed Action is not likely to adversely affect listed species. In addition, the ESA prohibits all persons subject to U.S. jurisdiction, including Federal agencies, from, among other things, “taking” endangered or threatened species. The “taking” prohibition includes any harm or harassment and applies in the United States and on the high seas.

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. §703) prohibits the taking of migratory and certain other birds, their eggs, nests, feathers, or young without an appropriate permit. The MBTA is the primary law that affirms or implements the nation’s commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. Each convention protects selected species of birds that are common to both countries (e.g., they occur in both countries at some point during their annual life cycle).

**Existing Conditions**

The Central Valley ecoregion was once dominated by a diverse array of perennial bunchgrass including prairies, oak-grass savannas, desert grasslands, as well as a mosaic of riparian woodlands, marshes and vernal pools. These grasslands gave way to oak woodlands and chaparral of the California Interior Chaparral and Woodland ecoregion. Today, the valley is dominated by agricultural development and urban expansion. Stanislaus County is home to approximately 500,000 people (U.S. Census, 2009) and contributes approximately 8 percent of the U.S. agricultural output (Great Valley, 2005).

Historically, the grasslands, wetlands and riparian forests of the Central Valley were occupied by many species including mule deer, pronghorn elk, tule elk, grizzly bears, wild pigs and grey wolves. Rabbits, hares, ground squirrels and kit foxes were also prevalent, along with a wide range of small mammals, birds and insects. However, due to landscape changes and encroaching urban expansion, some of these species have become endangered or are no longer present in the valley. Today, eight habitat types dominate Stanislaus County. These include four natural habitats - valley foothill riparian, riverine, wetland and grassland- and four human-modified habitats - pasture, cropland, orchard-vineyard and urban. Each of the natural habitats and special-status species with the potential to occur in these habitats are described below. The complete list of special-status species listed in the California Natural Diversity Database can be found in Appendix B.

**Valley Foothill Riparian**

The valley foothill riparian habitat is associated with riverine, grassland, oak woodland and agriculture. Transition to adjacent non-riparian vegetation is usually abrupt.
(Cheatham and Haller 1975). Within Stanislaus County, this habitat occurs along the Stanislaus and Tuolumne River and along Dry Creek. Riparian habitats can range from a dense thicket of shrubs to a closed canopy of large mature trees. According to the Riparian Habitat Joint Venture, over 135 species of California birds depend on riparian habitats for food, nesting, cover and migration corridors. In addition to birds, riparian habitats are home to 90 species of mammals, reptiles, invertebrates and amphibians. Special-status species associated with riparian habitats in Stanislaus County include:

- San Joaquin Valley woodrat (*Neotoma fuscipes riparia*)
- riparian brush rabbit (*Sylvilagus bachmani riparius*)
- pallid bat (*Antrozous pallidus*)
- Townsend’s big-eared bat (*Corynorhinus townsendii*)
- western yellow-billed cuckoo (*Coccyzus americanus occidentails*)
- Swainson’s hawk (*Buteo swainsoni*)
- yellow-breasted chat (*Icteria virens*)
- western pond turtle (*Emys marmorata*)
- California red-legged frog (*Rana draytonii*)
- foothill yellow-legged frog (*Rana boylii*)
- valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)
- Delta button-celery (*Eryngium racemosum*)
- Hartweg’s golden sunburst (*Pseudobahia bahiifolia*)
- least Bell’s vireo (*Vireo bellii pusillus*)
- western red bat (*Lasiurus blossevillii*)
- western mastiff bat (*Eumops perotis californicus*)
- Alameda whipsnake (*Masticophis lateralis euryxanthus*)
- San Joaquin whipsnake (*Masticophis flagellum ruddocki*)

Riverine

Riverine habitats include rivers and streams and can occur in association with many terrestrial habitats (DFG, 1988). The open water of large rivers provides resting cover for many species of waterfowl and hunting grounds for many species of insectivorous birds such as hawks and swallows. Special-status species associated with riverine habitats within Stanislaus County include:

- Sacramento splittail (*Pogonichthys macrolepidotus*)
- hardhead (*Mylopharodon conocephalus*)

Wetlands (Fresh Emergent and Vernal Pools)

Fresh emergent wetlands are transitional areas between terrestrial and aquatic systems that include marshes, seasonally flooded grasslands and the fringe of ponds. Wetlands provide a diverse array of plant and wildlife communities and are considered to be among the most productive wildlife habitats in California. Wetlands are important to amphibians, herons and egrets, waterfowl and shorebirds. Special-status species associated with fresh emergent wetlands in Stanislaus County include:

- bald eagle (*Haliaeetus leucocephalus*)
- Suisun song sparrow (*Melospiza melodia maxillaris*)
- tricolored black bird (*Agelaius tricolor*)
- western pond turtle (*Emys marmorata*)
Vernal pools are a sensitive wetland community that occurs in pastures, grasslands and woodlands. They are characterized as shallow, ephemeral bodies of water that occupy depressions in grasslands, pastures and woodlands (Holland and Kiel 1989). Vernal pools fill with water during the winter and dry up during the spring and summer. The species that occupy this habitat have adapted to this annual cycle and are endemic to California. Special-status species associated with vernal pools in Stanislaus County include:

- vernal pool fairy shrimp (*Brachinecta lynchi*)
- Conservancy fairy shrimp (*Branchinecta conservation*)
- Vernal tadpole shrimp (*Lepidurus packardi*)
- western spadefoot (*Spea hammondii*)
- California tiger salamander (*Ambystoma californiense*)
- Succulent owl’s clover (*Castilleja campestris ssp. succulenta*)
- Hoover’s spurge (*Chamaesyce hooveri*)
- Delta button-celery (*Eryngium racemosum*)
- Colusa grass (*Neostapfia colusana*)
- San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*)
- Hairy Orcutt grass (*Orcuttia pilosa*)
- Greene’s tuctoria (*Tuctoria greenei*)

Grassland

Grasslands are classified as either annual or perennial. The structure of this habitat depends largely on weather patterns and livestock grazing. Annual grassland habitats are open grasslands composed primarily of annual plant species. Many of these species also occur as understory in Valley Oak Woodlands and other habitats (DFG, 2005). Perennial grasses are more commonly found in moist, lightly grazed or relic prairie areas. Special-status species associated with grasslands in Stanislaus County include:

- San Joaquin kit fox (*Vulpes macrotis mutica*)
- American badger (*Taxidea taxus*)
- Swainson’s hawk (*Buteo swainsoni*)
- burrowing owl (*Athene cunicularia*)
- loggerhead shrike (*Lanius ludovicianus*)
- California tiger salamander (*Ambystoma californiense*)
- western spadefoot (*Spea hammondii*)
- Hartweg’s golden sunburst (*Pseudobahia bahiifolia*)
- Mountain plover (*Charadrius montanus*)

In addition to resident species, the Central Valley also supports some of the greatest concentrations of wintering water birds in the world. Stanislaus County is located within a portion of the Central Valley Flyway, a corridor for migratory birds between Alaska and South America. Over the last 100 years, the State’s migratory bird populations have declined due to habitat loss. However, due to local, State and national conservation efforts, populations of waterfowl and shorebirds are on the rise (See Figure 5 for Central Valley refuge locations). One refuge for migratory birds exists in Stanislaus County. The San Joaquin River National Wildlife Refuge encompasses more than 6,500 acres of
riparian woodlands, wetlands and grasslands (Figure 6). This refuge is home to several special-status species including Swainson’s hawk, herons and cormorants and riparian brush rabbits. The refuge is also the winter home to numerous migratory birds including Canadian “Honker” Geese, Snow Geese and numerous species of ducks such as Teal, Mallard and Pintails and has played a major role in the recovery of the Aleutian cackling geese. According to the United States Geologic Survey’s North American Breeding Bird Survey, 289 species of both breeding and non-breeding birds were sighted in California in 2009 (Appendix B).

The project site is located on top of a building at 1010 10th Street in downtown Modesto, where the land use is classified as commercial/mixed urban. A visual inspection of the site revealed no burrows, nests, wetlands, coastal areas or signs of potential habitat of threatened or endangered species. The project site is located approximately 11 miles southeast of the San Joaquin River National Wildlife Refuge and 13 miles east of the Westley corridor (Figure 8). Best management practices should be implemented for avoiding harassment and harm to migratory birds during construction activities.

**Historical and Cultural Resources**

Historic and cultural resources are sites, structures, buildings, districts, or objects, associated with important historic events or people, demonstrating design or construction associated with a historically significant movement, or with the potential to yield historic or prehistoric data, that are considered important to a culture, a subculture, or a community for scientific, traditional, religious, or any other reason (NPS, 2008). Typically, historic and cultural resources are subdivided into the following categories:

- **Archaeological resources.** This includes prehistoric or historic sites where human activity has left physical evidence of that activity but few aboveground structures remain standing.

- **Architectural resources.** This includes buildings or other structures or groups of structures that are of historic or aesthetic significance.

- **Native resources.** These include resources of traditional, cultural, or religious significance to a Native American Tribe, Native Hawaiian, or Native Alaskan organization.

There are multiple Federal regulations that protect historic and cultural resources. The National Historic Preservation Act of 1966 (NHPA) (P.L. 89–665, 16 U.S.C. §470) directs the Federal Government to consider the effects of its actions on historic and cultural resources under Section 106 through a four-step compliance process. It is noteworthy, however, that the law does not necessarily mandate preservation but does mandate a carefully considered decision making process. The four steps of the Section 106 compliance process are the following:

1. **Establish whether the Proposed Action constitutes an undertaking.** Per 36 CFR 800.16, an undertaking is an action funded in whole or in part under the direct or indirect jurisdiction of a Federal agency. If the proposed action is an undertaking, the appropriate State Historic Preservation Office (SHPO) or Tribal Historic Preservation Office (THPO) and other consulting parties (stakeholders) are identified.
2. **Identify National Register-listed or eligible properties.** Eligible historic properties in the geographic area of the Proposed Action are identified and evaluated for significance, including properties potentially eligible or listed with the National Register of Historic Places (NRHP) that may be affected by the Proposed Action.

3. **Assess affects of Proposed Action on eligible historic properties.** If the assessment determines no historic properties or no adverse effect to eligible historic properties, the SHPO/THPO and other consulting parties are informed, and the compliance process stops at this step. If the assessment determines actual or potential adverse effect to eligible historic properties, the SHPO/THPO and other consulting parties are notified through a letter and supporting documentation.

4. **Resolve adverse effects to eligible historic properties through consultation with the SHPO/THPO and Advisory Council on Historic Preservation (ACHP), as necessary.**

**Existing Conditions**

The Stanislaus County General Plan identifies two chief historical areas within Stanislaus County: Knights Ferry and La Grange, located approximately 22 and 30 miles, respectively, from the project site. In addition to these two historic areas, the National Register of Historic Places (NRHP) and the city of Modesto Landmark Preservation Sites identify ten properties within a quarter-mile radius of the project site that have been listed on or have been determined eligible for the NRHP (See Appendix C for map and pictures of each site). These sites are described below:

- The Hotel Covell is listed on the National Register of Historic Places. The hotel and theater was located at 1023 J St, just down the street from the project site. However, this building was demolished in 1997.

- The U.S. Post Office (Picture 1), also known as the Federal Building, is located at the corner of Twelfth St and I St, approximately 0.20 miles from the project site. This building was added to the National Registry of Historic Places in 1983.

- The Walter B Wood House, also known as The Crow House, was originally located at 814 Twelfth St. The house has been removed from this location and is undergoing renovations that potentially compromise its NRHP designation.

- Teamsters Hall (Picture 2) is located at 1222 I Street, approximately 0.22 miles from the project site.

- The State Theater (Picture 3) is located at 1037 J St, less than 0.3 miles from the project site. This theater first opened in December 1934. It is an art deco movie palace built at the height of the depression and is the only remaining original downtown movie theater.
• Abel and Ellman Office (Picture 4) is located approximately 0.25 miles from the project site.

• The Beatty Building is located across J Street from the project site (Picture 5).

• The Southern Pacific Transportation Center is located approximately 0.15 miles south of the project site (Picture 6). This railroad depot was constructed in 1915. The center’s architecture has been preserved over the years and now serves as the city’s transportation center.

• St. Stanislaus Catholic Church is located at 709 J Street (Picture 7), approximately one-quarter mile from the project site. The Spanish colonial style church was built in 1913.

• The Modesto Arch is located across I Street at Ninth Street, approximately 0.2 miles from the project site (Picture 8). The arch is listed as a Landmark preservation Site and is emblazoned with the city’s slogan “Water Wealth Contentment Health”. The arch was constructed in 1912 and has welcomed people to the city of Modesto ever since.

The project site is located on top of an existing building at 1010 10th Street in downtown Modesto. The building is approximately 101 feet tall. The tower will be 90 feet tall and secured on the building using guy wires. Existing equipment on the rooftop include air conditioning unit, generator, microwave system, GPS system and a mobile data transmitter antennae.

**Aesthetic and Visual Resources**

Effects to aesthetic and visual resources deal broadly with the extent to which development contrasts with the existing environment, architecture, historic or cultural setting, or land use, and the determination of effects is a judgment that must be made by a qualified professional. Visual resources are the natural and man-made features that give an area its visual character. Visual resources generally refer to the urban environment, whereas aesthetic resources typically include impacts to natural and scenic areas. Visual resources are inherently difficult to assess, because they involve subjectivity. Often communities, historical societies, and their corresponding jurisdictional agencies are the arbiters of visual effects resulting from the Proposed Action.

There are no Federal statutory or regulatory requirements for visual resources and aesthetics. State, regional, or local requirements may apply. If the landscape were cultural or historic, or part of a National Historic Landmark, the impacts would need to be reviewed under NHPA Section 106. Similarly, potential visual impacts on scenic byways would need to be assessed under the National Scenic Byways Program (P.L. 105–178, 23 U.S.C. §162) and laws concerning State-designated scenic byways. Consultation with the National Park Service may be required for potential impacts on the visual resources in State and national parks. Potential visual impacts for outdoor recreation sites and facilities covered by Section 6(f) of the Land and Water Conservation Fund Act (LWCFA) (P.L. 88–578, 16 U.S.C. §460) may need to be reviewed.
Existing Conditions

The project site is located on top of a building at 1010 10th Street in a commercial sector of downtown Modesto. The downtown area can be classified as eclectic, with a mingling of both contemporary and historical buildings. This area has undergone revitalization, creating an inviting atmosphere for businesses and recreation. No unique viewsheds related to national or State designated scenic areas are within the vicinity of the project site.

Land Use

The term "land use" refers to real property classifications that indicate either natural conditions or the types of human activity that occur, or are permitted, on a parcel. There is no nationally recognized convention or uniform terminology for describing land use categories; definitions are typically promulgated at the local level in the form of zoning ordinances. As a result, the meanings of land use descriptions and definitions vary among jurisdictions.

Land use plans are usually established to ensure that development proceeds in an orderly fashion, encouraging compatible uses for adjacent land. There are many tools used in the planning process, including master plans, geospatial databases, and zoning ordinances. A master plan is generally written by a county or municipality to provide a long-term strategy for growth and development. The foremost factor affecting land use is compliance and compatibility with master plans and zoning regulations. Other relevant factors include existing land use at project sites, the types of land uses on adjacent properties and their proximity to a Proposed Action, the duration of a proposed activity, and project permanence as a change in land use.

The following general land use categories will be used when discussing potential impacts to land use for this document: low, medium, and high density residential; commercial; industrial; public, quasi-public, and institutional; agricultural; vacant land; and open space. The following section will describe each area and its characteristic development and compatibility issues. Areas of particular concern include Coastal Zone Management (CZM) areas and coastal barrier islands.

Existing Conditions

The project site located atop the city and county government building at 1010 Tenth St in downtown Modesto. This property is designated for commercial use. The proposed action is located in a compatible area and does not pose a compatibility issue based on the property zoning.

Infrastructure

Infrastructure consists of the systems and physical structures that enable a population in a specified area to function. Infrastructure by definition includes a broad array of facilities (e.g., utility systems, streets, highways, railroads, airports, buildings and structures, and other manmade facilities). Individuals, businesses, governmental entities, and virtually all relationships between these groups depend upon this infrastructure for their most basic needs, as well as for critical and advanced needs (e.g., emergency response and health care).
Infrastructure is entirely man-made, with a high correlation between the type and extent of infrastructure and the degree to which an area is characterized as “developed.” An essential component of economic growth to an area is the availability of infrastructure and its capacity to support growth. The infrastructure components to be discussed in this section include utilities (electricity and communications), solid waste, and the transportation network.

Public utilities can be privately or publicly owned. Public utilities are often governed by a Public Utilities Commission that regulates the rates and services of a public utility. In recent years, several laws have been passed focusing on energy conservation and production. The Energy Policy Act of 2005 (P.L. 109–58) provides tax incentives and loan guarantees for energy production of various types. The Energy Independence and Security Act of 2007 (P.L. 110–140) expanded the production of renewable fuels and contains provisions for energy efficiency, smart grid, and carbon dioxide and incentives for plug-in hybrid electric vehicles to assist the electric power industry’s efforts to reduce greenhouse gas emissions.

Regulations governing communications infrastructure include Part 17 Construction, Marking, and Lighting of Antenna Structures of the FCC regulations (47 CFR Chapter 1), which prescribes procedures for antenna structure registration and requires the Federal Aviation Administration (FAA) to conduct an aeronautical study of the navigation air space to determine appropriate tower marking and lighting requirements to achieve safe air space. Before the FCC authorizes the construction of new antenna structures or alteration in the height of existing antenna structures, an FAA determination of “no hazard” may be required. FAA notification is required for any new construction greater than 200 feet above the ground, and near an airport runway (taller than 100:1 for a horizontal distance of 20,000 feet, 50:1 for a horizontal distance of 10,000 feet, and 25:1 for a horizontal distance of 5,000 feet of a heliport). By checking the heights of proposed antennae and their proximity to airports, the FCC’s TOWAIR software system assists in determining if FAA notification is required. The FAA can vary marking and lighting recommendations when requested, provided that aviation safety is not compromised. In all cases, safe aviation conditions around the tower are the FCC’s primary concern, and safety concerns dictate the marking and lighting requirements. Navigation air space, which starts at 200 feet above the ground, decreases in elevation in close proximity to airports; the minimum height for required marking or lighting would decrease in these areas.

**Existing Conditions**

The project site is located in a developed part of downtown Modesto. As the proposed tower will be installed atop an existing building, the building has adequate utilities and an established transportation network.

The Modesto Municipal Airport is located approximately two and a half miles to the southeast of the project site. The FAA conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 concerning the project site. The study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation. See Appendix D.

**Socioeconomic Resources**
Socioeconomics comprise the basic attributes and resources associated with the human environment, including demographic, economic, and social assets of a community. Demographics focus on population trends and age. Economic metrics provide information on employment trends and industries. Housing, infrastructure, and services are also influenced by socioeconomic factors.

EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) directs agencies to address environmental and human health conditions in minority and low-income communities. Environmental justice addresses the disproportionate and adverse effects of a Federal action on low-income or minority populations. The intent of EO 12898 and related directives and regulations is to ensure that low-income and minority populations do not bear a disproportionate burden of negative effects resulting from Federal actions. The general purposes of EO 12898 are the following:

- To focus the attention of Federal agencies on human health and environmental conditions in minority communities and low-income communities, with the goal of achieving environmental justice
- To foster nondiscrimination in Federal programs that substantially affect human health or the environment
- To give minority communities and low-income communities greater opportunities for public participation in, and access to, public information on matters relating to human health and the environment.

Existing Conditions

With regard to socioeconomic conditions of the proposed site, the proposed action area is not located in a low-income or minority area. Land area for Stanislaus County is 1,494 square miles with a population estimated at approximately 510,000 (U.S. Census Bureau). The project site is located in downtown Modesto atop the existing building at 1010 10th Street in a commercial sector of Modesto.

Human Health and Safety

A safe environment is one in which there is no, or an optimally reduced, potential for death, serious bodily injury or illness, or property damage. Human health and safety addresses workers’ health and safety, and public safety during demolition and construction activities and during subsequent operations of those facilities. The health and safety of onsite military and civilian workers are safeguarded by numerous regulations designed to comply with standards issued by Occupational Safety and Health Administration (OSHA), EPA, and State agencies. These standards specify the amount and type of training required for industrial workers, the use of protective equipment and clothing, engineering controls, and maximum exposure limits for workplace stressors.

Existing Conditions
The proposed action requires construction activities to occur atop an existing building, located in downtown Modesto. During the construction phase, all equipment and personnel will be located on the top of the building, limiting the public exposure to the construction environment. Construction activities will take place for approximately one week to drill anchor points and install guy wires. All construction activities will be in compliance with OSHA, EPA and state regulatory agencies.

Section 4- Environmental Consequences

Noise

Noise analyses typically evaluate potential changes to the existing noise environment that would result from implementation of a proposed action.

Proposed Action

Construction-Related Impacts- There will be a temporary increase in construction-related noise during the installation phase of this project. The increase in noise is limited to drilling anchor points and fastening the tower segments. The construction will take place during normal business hours (i.e. 7:00 a.m. to 5:00 p.m.) Monday through Friday and is expected to last one week. The building that the tower will be located on has an unoccupied top floor so the noise impact to employees will be minimal. It is anticipated that noise impacts from the proposed action construction activities would be temporary and would not exceed typical noise levels. Construction-related noise impacts from the proposed tower project would not be significant.

Operations-Related Impacts- Once the construction phase is completed, ambient noise levels will return to normal. Temporary noise could be generated by a small climate control unit. However, the current configuration of the building houses several large climate control units. The anticipated noise output of the new system is expected to be minimal in comparison to the existing system. Additionally, the project utilizes an existing back up generator so no additional noise will be produced to provide electric power as needed. The proposed action is not anticipated to measurably increase the ambient noise levels. Therefore, there would be no significant noise impacts.

No Action Alternative

Under the no action alternative, there would be no upgrades to the existing system due to lack of tower space and out-dated equipment. Since there would be no construction or new equipment, no adverse impacts on the ambient noise environment would occur under this option.

Air Quality

Proposed Action
Impacts to air quality can come from a variety of sources located at transmitting and receiving sites, across all categories described in Section 4.1. During construction, sources of new emissions include construction vehicles and equipment and fugitive dust emissions resulting from ground-disturbing activities and demolition. Operations-related impacts to air quality from transmitting and receiving sites would occur as a result of the operation of backup generators, which burn fossil fuels. Air quality impacts are not site-specific in nature but are instead typically addressed at a regional level based on the airshed, as described in Section 3.2.

Construction-Related Impacts - Air quality impacts during construction would be minimal given the location of the proposed tower. Since the project location is on top of an existing building, there is no ground disturbance and therefore, no fugitive dust to contain. The presence of construction vehicles will also be minimal; their role being to drop off equipment and personnel. Therefore, there would be no significant impact to air quality from construction activities.

Operations-Related Impacts - Following the construction phase, ambient air quality level would return to normal. Implementation of the proposed action does not include any long-term operation of significant emission-generating sources. Although back-up generators can be a source of emissions, the proposed plan will utilize a generator that is already in place. Therefore, there would be no significant impact to existing ambient air quality levels.

No Action Alternative

Under the no action alternative, there would be no upgrades to the existing system due to lack of tower space and out-dated equipment. Since there would be no construction or new equipment, no adverse impacts on the ambient air quality would occur under this option.

Geology and Soils

Impacts to geology and soils from transmitting and receiving sites would result from ground disturbing activities, such as excavation, grading, backfilling, trenching, and other activities. Since PSIC-funded projects are characterized by substantial geographic diversity across all 50 States, 5 Territories, and the District of Columbia and impacts to geology and soils are site specific in nature, impacts were evaluated qualitatively based on the activities normally associated with the proposed project reviewed. Once a specific proposed project area has been finalized, quantitative analyses of impacts to geology and soils can be conducted in future site specific environmental documentation, as required by Federal or State laws and regulations, on the basis of the potential impact anticipated.

Proposed Action

Since the project location is on top of an existing building, there is no ground disturbance. Therefore, would be no significant impact to the geology, topography or soils.

No Action Alternative
Under this alternative, there would also be no impact to the geology, topography or soils since there would be no new construction.

**Water Resources**

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 a water body or absorbed into the water table, and building directly in or adjacent to a water resource such as a wetland. The use of erosion-control BMPs to reduce impacts is common practice and may improve water quality at a site. Development in floodplains poses a hazard both to human safety from flood events and to natural resources from the disruption of natural hydrologic patterns. Impacts to water resources resulting from the Proposed Action have been evaluated qualitatively.

**Proposed Action**

Since the project location is on top of an existing building, there is no ground disturbance. Therefore, there would be no significant impact to the current water quality or hydrologic conditions of the area.

**No Action Alternative**

Under this alternative, there would also be no impact to the current water quality or hydrologic conditions since there would be no new construction.

**Biological Resources**

Impacts to biological resources can result from several activities, including construction activities such as demolition, grading, excavation, and construction that could alter or destroy habitat, either temporarily or permanently. In addition, the continued presence of human activity on a smaller scale could result in behavioral impacts to certain animal species that could affect feeding and reproductive patterns and habits. Impacts to biological resources are often site specific in nature.

**Proposed Action**

**Wildlife, Wildlife Habitat and Vegetation**

**Construction-Related Impacts** - No short- or long-term minor or significant adverse impacts on wildlife habitats or vegetation are anticipated from the proposed action. The project site is located on top of an existing building so there are no activities such as demolition, grading or excavation associated with the construction phase of the project. Construction-related activities will not have an impact on wildlife, habitat and vegetation at the proposed site due to its location on top of an existing building. Database searches were made for wildlife, wildlife habitat and vegetation at the proposed site (Appendix B). While several special-status species have been identified within Stanislaus County, based on data from the US Fish and Wildlife Service’s Critical Habitat Mapper, none of these species or habitats exist at or in the vicinity of the project site. Consultation with the US Fish and Wildlife Service was submitted on October 21, 2010. As of December 8,
2010, there has been no response for consultation. It is anticipated that the proposed tower will not have an effect to wildlife, wildlife habitats or vegetation.

**Operations-Related Impacts**- Given the location of the project site, the on-going operation of this site will not create any adverse impact to wildlife, habitats or vegetation.

**Migrating Birds**

**Construction-Related Impacts**- Construction activities could potentially have an adverse impact on migratory birds. Impacts include tower erection, and antennae and climate control equipment installation. Project sites located along a migratory flyway would have a greater impact on migrating populations. While the Central Valley is home to a vast number of wintering birds, the Central Valley Joint Venture, USFWS and other sources indicate that the major flyway through the valley lies to the west of Modesto, along the corridor of wildlife refuges (Figure 7). Furthermore, the construction of the tower is anticipated to be concluded prior to the start of migration season in the Central Valley. As of December 8, 2010, the USFWS has not responded to the request for consultation.

**Operations-related Impacts**- Minor long-term impacts to migratory birds would be expected from the proposed project. Anticipated impacts include collision with the tower or antennae, especially during times of low visibility. Although the probability of collision is difficult to calculate and beyond the scope of this assessment, there are existing sites in the downtown area with towers, guy wires and antennae that do not experience collisions from migratory or local birds. As of December 8, 2010, the USFWS has not responded to the request for consultation.

**Threatened and Endangered Species**

**Construction-Related Impacts**- Construction-related activities will not have an impact on threatened and endangered species due to the fact that the proposed project site is located on top of an existing building in downtown Modesto. While the California Natural Diversity Database lists several special-status species in Stanislaus County (Appendix B) none of these species exist in downtown Modesto. Great lengths have been taken to preserve the existing natural habitat for these species. The San Joaquin River National Wildlife Refuge was established in 1987 under the authority of the Endangered Species and Migratory Bird Conservation Acts. Located over 10 miles from the project site, the refuge encompasses 6,500 acres of riparian woodlands, wetlands and grasslands, providing breeding grounds, hunting grounds and shelter for numerous species of wildlife. In the City of Modesto’s Environmental Impact Report for 2008, the city identified the biodiversity of the downtown area to be low, with house mice, rats, rock doves, house sparrows and starlings composing most of the species. Since no threatened, endangered or sensitive species habitat were observed at the proposed action project site or within the surrounding area of downtown Modesto, construction-related activities would be expected to have no impact on threatened, endangered or sensitive species habitats.

**Operations-Related Impacts**- Similarly to construction-related impacts, the continuing operation of the proposed action will not have an impact on threatened, endangered or sensitive species.
Wetlands

Construction-Related Impacts- There are no wetland habitats in the vicinity of the proposed action. Therefore, there will be no adverse impact on these habitats.

Operations-Related Impacts- There are no wetland habitats in the vicinity of the proposed action. Given the location of the project site, there are no impacts to wetlands due to on-going operations.

No Action Alternative

Under this option, there would be no construction; therefore, there would be no impact to wildlife habitats, vegetation, migratory birds, threatened or endangered species or wetlands.

Historical and Cultural Resources

Impacts to historic and cultural resources can occur both from physical disturbance of historic properties and from aesthetic changes to a historic property or its viewshed. To determine the nature of impacts to historic properties, as defined under the NHPA, consultation with the relevant State or Territory SHPO, or THPO, may be required.

As described in Section 3, Existing Environment, several historic places were identified within a quarter-mile of the proposed action project site (National Register of Historic Places). These sites include one building registered with the National Historic Places Registry and nine buildings that are considered Landmark Preservation Sites by the city of Modesto. Field reconnaissance was conducted to determine if the viewshed from these sites would be adversely affected by the proposed action.

- The U.S. Post Office, located on the corner of I St and Twelfth St, is listed on the National Historic Registry. Picture 1A shows the view from the front of the post office. From this angle, the building at 1010 10th Street is not visible. Picture 1B shows the view from the rear of the Post Office, looking in the direction of 1010 Tenth St. Based on this picture, it is clear that the project site is obscured by another building and is not within the viewshed from the post office. Therefore, the proposed action would not adversely impact this historic site.

- Picture 2B shows the view from the front of Teamsters Hall, looking towards the proposed project site. From this perspective, the proposed project site is clearly not within the viewshed of this site. Therefore, the proposed project would not have an adverse impact on the current or potential historical standing of this building.

- Picture 3B shows the view from the State Theater, facing the direction of the project site. The State Theater is a Landmark Preservation Site within the City of Modesto. Although the project site is a mere two blocks away, the proposed tower location is not in the viewshed of the theater. Given the existing skyline between the State Theater and the proposed project...
site, the proposed project would not have an impact on the current or potential historic standing of this landmark.

- Abel and Ellman Office (Picture 4A) is currently listed as a Landmark Preservation Site with the City of Modesto. Picture 4A was taken facing both the building and in the direction of the proposed project site. From this perspective, it is clear that the line of sight between this landmark site and the proposed project site is obscured by tall buildings common to the downtown area. Therefore, the proposed project would not have an adverse impact on the current or potential historic standing of this building.

- The Beatty Building is the closest Landmark Preservation Site to the proposed project site. This building is located on J Street, directly across from the proposed project site. The building complex that houses 1010 10th Street extends to the corner of 10th Street and J Street (Picture 5B). This building is constructed with five stories at the corner of 10th Street and J Street and four stories at 1010 10th Street, thereby obscuring 20 feet of the proposed tower. Furthermore, the height of the building at 1010 10th Street places the proposed tower out of the direct line of sight of people utilizing this area. The Modesto Downtown Improvement District has gone to great lengths to beautify the street scene by planting tall trees, adding hanging baskets of flowers and commissioning art work to draw the eye to street-level. Therefore, the proposed project would not have an adverse impact on the current or potential historic standing of this building.

- The Southern Pacific Transportation Center is located approximately 0.15 miles south of the project site. Although the transportation center is considered a Landmark Preservation Site, it is currently being utilized as the city of Modesto’s transportation center. Given the proximity to the project site, the tower would be visible from the transportation center. Picture 6B was taken at the transportation center facing the direction of the proposed project site. However, since the tower is being built without lights or other reflective features that would make it stand out against the existing skyline- which includes overhead power lines and guyed towers- the proposed action would not have an adverse impact on the existing or potential historic standing of this building.

- St. Stanislaus Catholic Church is located approximately a quarter-mile from the project site. The rooftop of the project site is visible in the distant horizon (Picture 7B). However, the proposed project would not detract from the view from this building given that the proposed tower will be constructed without lights or other reflective surfaces that will make it stand out against the existing skyline. Additionally, the existing skyline consists of overhead power lines that are not aesthetically pleasing, yet have not detracted from this buildings historic standing. Therefore, the proposed project would not have an adverse impact on the current or potential historic standing of this building.
• The Modesto arch is located within a quarter-mile of the project site and is listed as a Landmark Preservation Site. Picture 8B shows the view from beneath the arch, at the corner of I Street and Ninth Street, facing in the direction of the project site. From this picture, the proposed project site is obscured by mature trees. Furthermore, the existing skyline consists of overhead power lines, street lights and tall buildings. Therefore, the proposed project would not have an adverse impact to the current or potential historic standing of this feature.

Construction-Related Impacts- Construction-related impacts to historic and cultural resources at and near the proposed tower site were assessed to determine if temporary impacts to viewsheds or permanent impacts or harm to historic properties exist. Consultation with the California SHPO was conducted to determine whether the construction of the proposed tower may generate any short- or long-term indirect impacts to historic and cultural resources and with the viewshed of any historic and cultural resources. Information available on the California SHPO website indicated several historic places are located within the APE.

Given the project location and the data collected from the field, the proposed action would have no adverse impact to any of the identified historical and cultural sites during the construction phase of the proposed action.

Operations-Related Impacts- Operation of the proposed tower would not typically require any ground-disturbing activities; therefore, it is expected that there would be no impact to archaeological resources. Based on correspondence with the California SHPO, no adverse impacts would occur (See Appendix C).

No Action Alternative

Under the No Action Alternative, there would be no new construction. Therefore, there would be no impact to historic and cultural resources resulting from the No Action Alternative.

Aesthetic and Visual Resources

Potential impacts on aesthetic and visual resources could be greater in rural areas, where development is at a minimum or in urban areas that contain historical sites. Impacts on aesthetic and visual resources may be short- or long-term, depending on whether the impact is related to construction activities or the feature that is being constructed.

Construction-Related Impacts- The proposed action is located on top of an existing building in the downtown area. The Preferred Alternative does not include any modifications to the existing infrastructure, i.e. building new roads or utilities. The construction phase of the proposed action is estimated to last no longer than one week with limited equipment, also located on top of the building. Based on the visual data gathered from the historical and cultural sites, the proposed action is not within the viewshed of these sites. Therefore, there would be no significant construction-related impacts to any aesthetic or visual resources from the proposed action.
Operations-Related Impacts- Since the project site is not within the viewshed of any cultural or historical sites in the downtown area, the continued operations of the proposed action would not have an adverse impact on these resources.

No Action Alternative

Under the No Action Alternative, there would be no new construction. There would be no impact to aesthetic or visual resources resulting from the No Action Alternative.

Land Use

Impacts to land use would occur when the proposed action is not compatible with the existing or planned land use. The degree of compatibility is site-specific.

The project site is located in an area classified as commercial/mixed urban. The Proposed Action is compatible with this type of land use classification. Therefore, there would be no impact to the existing land use pattern.

No Action Alternative

Under the No Action Alternative, there would be no new construction. Therefore, there would be no impacts to general land use compatibility, coastal zone or coastal barrier resources resulting from the No Action Alternative.

Infrastructure

Impacts to the infrastructure include disruption to the human or natural environment, including utilities, wastewater and communications.

The project site is located on top of an existing building in downtown Modesto. This is a developed part of the city and no new infrastructure is required for the continued operation of the proposed action. The proposed action would not be expected to cause noticeable impacts to local utility services. Therefore, there would be no impact on the existing infrastructure.

No Action Alternative

Under the No Action Alternative, there would be no new construction. Therefore, there would be no impact to utilities or the transportation network resulting from the No Action Alternative.

Socioeconomic Resources

Socioeconomic resources include demographics, employment, housing and services. Impacts to these resources are defined in terms of measurable changes to demographics, employment, demand for housing or services and disproportionate effects to low-income or minority populations.

The potential for impacts on minority and low-income populations would be based on the evaluation of specific site characteristics. The project site is located in a commercial
sector of downtown Modesto. The proposed action would not cause a change in existing demographics, employment or interfere with the demand for housing or services. Given the project site’s location on top of an existing government building, there is no impact to low-income or minority populations.

No Action Alternative

Under the No Action Alternative, there would be no new construction. Under this alternative, there would be no impacts to demographics, the availability of housing, the availability to services or environmental justice.

Human Health and Safety

As with any project involving construction or on-going operations, human health and safety is important. Key factors to protecting human health and safety are the generating, handling and disposal of hazardous materials and maintaining a safe work environment during the construction phase by adhering to established safety guidelines and regulations.

Construction-Related Impacts- During the construction phase of the proposed action, there would be an increase in workplace safety hazards due to the nature of construction work. The impact, however, would be negligible. The project site is isolated from the general public and proper care would be taken to cordon off the construction area to minimize safety risks. Furthermore, strict adherence to worker safety rules and regulations, set forth by OSHA, would lessen the risk of construction-related hazards even more. Construction-related impacts to human health and safety impacts would not be significant.

Operations-Related Impacts- The project site is a secured site. There is no access for the general public to the rooftop of 1010 Tenth St. Constructing the proposed action in this type of environment greatly minimizes the risks to human health and safety.

The proposed action includes using an existing generator for back-up power. Therefore, no extra fuel or storage tanks or the hazards associated with them would be present.

Implementing the proposed action will enable the public safety agencies of Stanislaus County to communicate more effectively and advance their interoperability among agencies, from a local to a national level. There would be no significant adverse impacts to human health and safety resulting from operation of the proposed tower.

No Action Alternative

By not implementing the proposed action, there are no human health and safety hazards to address. Adverse impacts would only occur to the public safety and welfare of the citizens due to continued operations of out-dated equipment and the absence of space on the existing tower for communications improvements.
Section 5- Findings and Conclusion

Findings

The proposed project will require the construction of a new telecommunications tower on top of an existing building in downtown Modesto. There will be no ground disturbance.

The proposed project will not involve any unusual risks or impacts to sensitive areas identified in Chapter 4. The No Action Alternative would result in adverse impacts to human health and safety. Therefore, the proposed project would warrant the issuance of a FONSI to cover those actions for which no significant impact has been determined.

In accordance with 47 CFR Section 1.1307 (a) (1) through (8), an evaluation has been made to determine whether any of the listed FCC special interest items would be significantly affected if a tower structure and/or antenna and associated equipment were constructed at the proposed site. No FCC special interest items were identified that would require an EA to be prepared.

Consequences of the Proposed Action

The proposed action would not have a significant impact on any resource area for those projects falling within the eleven resource parameters described in Chapter 4. The proposed action would have a beneficial impact on human health and safety, because it would enable countywide improvements to public safety interoperable communications.

Consequences of the No Action Alternative

Under the No Action Alternative, no interoperable communications would occur. Continued use of outdated equipment would result in an adverse impact to human health and safety.
Section 6- List of Preparers

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Chapter 7 - References


United States Geologic Survey (USGS)- 7.5 Minute Topographic Quadrangle of Salida and Riverbank, California, 1987.

