

DRAFT

**ENVIRONMENTAL ASSESSMENT
FOR
SOUTH MOUNTAIN TOWER SITE NUMBER ONE,
MOUNT SUPPOA, SOUTH MOUNTAIN PARK,
PHOENIX, MARICOPA COUNTY, ARIZONA**

City of Phoenix Project No. IT2020008-8

prepared for

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EXECUTIVE SUMMARY

The City of Phoenix (City) is receiving financial assistance for the Proposed Action through the Arizona Department of Homeland Security, from the Public Safety Interoperable Communications Grant Program. That grant program is administered by the National Telecommunications and Information Administration (NTIA), an agency of the Department of Commerce. Because the proposed upgrades would involve the installation of a tower more than 200 feet tall, the grant application requires the City to complete an Environmental Assessment to ensure that the requirements of the National Environmental Policy Act and other federal laws are addressed.

The Proposed Action would involve the replacement of an existing 225-foot-tall monopole with a new 250-foot-tall four-leg, self-supporting lattice tower. The replacement tower would make another nearby 125-foot-tall monopole that was erected in 2003 obsolete, and it also would be removed. A temporary staging area, about 500 feet south of and down slope of the tower, would be used during construction. About 100 cubic yards of excess excavated rock would be temporarily stockpiled in an existing materials stockpile area about 1.8 miles west of the tower. The area of ground disturbance would be limited to less than one-third acre.

The Proposed Action is on City property in the South Mountain Communications Site within Phoenix South Mountain Park. South Mountain Park is located between Baseline Road and the alignment of Chandler Boulevard on the north and south, and between 47th Avenue and 48th Street on the west and east, near the southern boundary of the Phoenix city limits. The South Mountain Communications Site is located on the spine of South Mountain and includes 46 communication towers (including monopoles, guyed towers, and lattice towers) and 41 equipment buildings used by 104 licensees.

The Proposed Action is a subset of a larger project that would provide a network of seven high elevation radio sites in Arizona's Central Region. The main purpose of this network is to provide a platform, which all participating agencies (local, county, state, federal, and tribal) with compatible radio equipment, can use to interoperate with each other regardless of each individual agency's own radio system. The Proposed Action would improve South Mountain facility's radio and wireless conference interoperability by upgrading the existing site through the installation of a 10-channel, 700-megahertz digital communications system. A structural analysis indicated that the two existing monopoles on the South Mountain Tower 1 site would not be able to support the load of the new network's antennas or provide adequate space for future applications.

The Proposed Action would not involve any unusual risks or impacts to sensitive resources and would not have a significant impact on any of the eleven resource areas identified by the NTIA's Programmatic Environmental Assessment for the Public Safety Interoperable Communications grant program. Therefore, no further environmental analysis is required. The Proposed Action would have a beneficial impact on health and safety by improving public safety interoperable communications in Arizona's Central Region. Alternatively, the No Action Alternative would result in adverse impacts to human health and safety because no improvements to interoperable communications would occur. We recommend that the NTIA issue a finding of no significant impact (FONSI) for the Proposed Action.

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SECTION 1 – INTRODUCTION

Introduction

On behalf of the City of Phoenix (City), URS Corporation (URS) completed this Environmental Assessment (EA) for proposed upgrades to a transmitting and receiving facility within the South Mountain Communications Site. The City has received funding, through the Arizona Department of Homeland Security, from the Public Safety Interoperable Communications (PSIC) Grant Program administered by National Telecommunications and Information Administration (NTIA), an agency of the Department of Commerce. The PSIC grant program was established to assist state and local agencies in the improvement of their public safety interoperable communications capabilities. Because the proposed upgrades would involve the installation of a tower more than 200 feet tall, the grant application requires the City to complete an EA to ensure that the requirements of the National Environmental Policy Act and other federal laws are addressed.

The proposed upgrades to the South Mountain Tower Site Number One (South Mountain Tower 1) would involve the replacement of an existing 225-foot-tall monopole with a new 250-foot-tall four-leg, self-supporting lattice tower. The replacement tower would make another nearby 125-foot-tall monopole that was erected in 2003 obsolete, and it also would be removed. A temporary staging area, about 500 feet south of and down slope of the tower, would be used during construction. About 100 cubic yards of excess excavated rock would be temporarily stockpiled in an existing materials stockpile area about 1.8 miles west of the tower.

The project area is on City property within the City of Phoenix South Mountain Park. South Mountain Park is located between Baseline Road and the alignment of Chandler Boulevard on the north and south, and between 47th Avenue and 48th Street on the west and east, near the southern boundary of the Phoenix city limits (Figure 1). The park encompasses more than 16,000 acres and has 51 miles of recreational trails (City of Phoenix 2010). The Phoenix metropolitan area, with a population of approximately 3.3 million, is the fourteenth largest and one of the fastest growing metropolitan areas in the nation.

The South Mountain Communications Site is located on the spine of South Mountain and includes 46 towers (including monopoles, guyed towers, and lattice towers) and 41 equipment buildings used by 104 licensees. The proposed replacement tower site is at latitude 33° 20' 5.2" North, longitude 112° 03' 34.5" West in the SE1/4 SE1/4 SW1/4 of Section 16, Township 1 South, Range 3 East, Gila and Salt River Baseline and Meridian. The temporary construction staging area is in the N1/2 NE1/4 NW1/4 of Section 21, Township 1 South, Range 3 East, and the stockpile area is in the S1/2 NW1/4 SE1/4 of Section 18, Township 1 South, Range 3 East. These areas are depicted on the Lone Butte U.S. Geological Survey 7.5-minute topographic quadrangle (Figure 2).

Purpose and Need

The South Mountain Tower 1 project is a subset of a larger project that would provide a network of seven high elevation radio sites in Arizona's Central Region. The main purpose of this network is to provide a platform that all participating agencies with compatible radio equipment can use to interoperate with each other regardless of each individual agency's own radio system. Currently, agencies cooperate on a case-by-case basis to establish interoperability, which may be limited by the coverage and/or capability of the individual systems involved. The existing Regional Wireless Cooperative (RWC) network currently does facilitate interoperability between agencies, but the addition of the proposed high elevation radio sites would improve interoperability by (1) adding capacity to allow for a higher volume of interoperability cases, (2) increasing the coverage area for interoperability, and (3) providing a common interoperability platform.

This effort will be a partnership between the Arizona Department of Public Safety (DPS) (including DPS's Immigration and Apprehension Co-operative Teams and Gang and Immigration Intelligence Team Enforcement Mission); Arizona Public Safety Communications Advisory Commission; and the RWC, a multi-agency, multidisciplinary partnership of 16 jurisdictions, including:

- | | |
|-------------------|-------------------|
| 1. Avondale | 9. Phoenix |
| 2. Buckeye | 10. Peoria |
| 3. Chandler | 11. Scottsdale |
| 4. Daisy Mountain | 12. Sun City |
| 5. El Mirage | 13. Sun City West |
| 6. Goodyear | 14. Sun Lakes |
| 7. Guadalupe | 15. Surprise |
| 8. Maricopa | 16. Tempe |

Other interoperability users include private, local, county, state, tribal, and federal agencies such as the Union Pacific Railroad Police, Tolleson Police Department, Yuma Regional Communications System, Central Arizona Project, Maricopa County, Arizona Counter Terrorism Information Center, Arizona Department of Transportation, Arizona State University Police, Arizona Department of Emergency and Military Affairs, Arizona Department of Health Services, Arizona Department of Corrections, Arizona Liquor Control, Arizona Radiation Regulatory Agency, Arizona Government Information Technology Agency, Gila River Police, Federal Bureau of Investigations, Federal Reserve Bank, U.S. Drug Enforcement Administration, U.S. Department of Justice, and U.S. Marshalls.

The network would allow the RWC and other interoperability users to communicate across jurisdictional lines. This ability is useful when network users are providing public safety or emergency response for large, multi-jurisdictional events. These events could include sporting events (i.e., Fiesta Bowl, Super Bowl XLII, Bowl Championship Series, NASCAR races), public gatherings (i.e., 2006 Immigration March), criminal investigations (i.e., 2006 Baseline Killer / Serial Shooter cases), and Public Safety Funerals. The high elevation radio network also would provide backup communications for local agencies if their normal communications systems fail, whether or not they are members of the RWC.

The network also would provide on-street coverage for a majority of agencies in the Central Region without impacting any one agency's radio network. In the event of failure, the network

will serve as a backup for the largest multi-agency radio system in the state, maintaining operations to a significant population base in Arizona.

In 2007, the Arizona Public Safety Communications Advisory Commission developed an Arizona Statewide Communications Interoperability Plan to promote statewide interoperability. The proposed network of seven high elevation radio sites, which the South Mountain Tower 1 project is a part of, would meet the objectives of the plan. When completed, the network will enhance redundancy and allow for greater interoperability among most agencies in the Central Region.

Upgrades to the South Mountain Tower 1 site would involve the installation of a 10-channel, 700-megahertz (MHz) digital communications system that would improve the facility's radio and wireless conference interoperability. A structural analysis indicated that the two existing monopoles on the South Mountain Tower 1 site would not be able to support the load of the new network's antennas or provide adequate space for future applications (ISE Incorporated 2007).

The existing 225-foot-tall monopole, which was built on the facility site in 1976, has begun to degrade to the point where safety had become a concern and its corroding structure was identified as a reradiating source of interference. Replacement of the two older monopoles with a single tower also is consistent with the Phoenix Parks and Recreation Department's mandate of consolidation and no new growth at the South Mountain Communications Site.

Under the terms of an August 2003 Intergovernmental Agreement (Number 101007), the City provides the Gila River Indian Community space on the existing 225-foot-tall monopole and in the equipment shelter for a 4-channel, 800-MHz communications system, and also provides microwave backhaul connectivity into the Gila River Indian Community Reservation microwave system. An ancillary benefit of the proposed upgrades to the South Mountain Tower 1 site would be enhanced reliability of the Gila River Indian Community system and ability of the City to offer the Community more space for future expansion of their system.

SECTION 2 – PROPOSED ACTION

Project Description

Upgrades to the South Mountain Tower 1 site would involve the replacement of an existing 225-foot-tall monopole with a new 250-foot-tall four-leg, self-supporting lattice tower. The new galvanized steel lattice tower would be installed west and about 15 feet downhill of the existing monopole (Figure 3a). Therefore, the elevation of the top of the replacement tower would be about 10 feet higher than the top elevation of the current monopole. An 8-foot-tall whip antenna extends above the top of the existing monopole and would be installed on the replacement tower as well, but no beacon light or red and white paint would be necessary to meet Federal Aviation Administration (FAA) standards because other nearby towers within the South Mountain Communications Site are taller. The replacement tower would make another nearby 125-foot-tall monopole that was erected in 2003 obsolete, and it also would be removed.

The four legs of the replacement tower would be anchored in concrete foundations about 30 feet deep. The existing equipment shelter at the base of the replacement tower would be modified slightly by installing a new antenna entry port in one wall. One pole of an electrical line that provides power to the facility would be relocated to provide room for the replacement tower. Shifting the location of the pole and service line would require excavating a conduit trench about 3 feet deep and 100 feet long, mostly within the road used to access the facility. The City also would install a 10-channel 700-MHz digital communications system in the existing equipment building on two new equipment racks.

A temporary construction staging area, located in a partially cleared area adjacent to TV Road about 500 feet south and down slope of the tower, would be used for off loading and storing materials and equipment (refer to Figure 2; Figure 3b). Maricopa County has existing right-of-way ownership and no further acquisition is needed for construction easements. A 250-foot tall crane would be used for construction. Another crane would be used to erect the 250-foot crane. An existing access road (TV Road) would be used to bring the construction equipment to and from the site.

About 100 cubic yards of excess excavated rock would be hauled to and temporarily stockpiled in an existing materials stockpile area until it is reused as fill material. The stockpile area is next to a quarter-midget race track in South Mountain Park, about 1.8 miles west of the tower (refer to Figure 2; Figure 3C).

Alternatives

Several project alternatives, including the proposed action, were investigated during the facility selection process and are discussed below.

Proposed Action – South Mountain Tower Site Number One (Preferred Action)

The South Mountain Tower 1 site was selected as one of the seven high elevation radio sites because of its strategic location on one of the highest peaks in Phoenix. The site is well suited to provide wide area radio coverage to the Phoenix metropolitan area as well as to the City of Maricopa, Gila River Indian Community, and the Interstate 10 corridor to the south. Because of

its commanding elevation, the existing South Mountain Communications Site is extensively used by many agencies to provide radio communications.

The South Mountain Tower 1 site also was selected because it is an existing radio site, which would minimize the amount of construction and cost required to implement the network. An existing equipment building on the South Mountain Tower 1 site provides adequate space for the planned upgrades, and construction of a new equipment building would not be necessary. The existing backup generator, located in the lower level of the equipment building, has ample capacity to operate the proposed upgrades to the facility and would not need to be replaced.

Due to the topographic location and placement of the facility on the eastern end of the South Mountain Communications Site, the Proposed Action is best suited to interface with the existing RWC network. The Proposed Action requires minimal new construction and the new 250-foot-tall self-supporting lattice tower will provide an adequate platform for the existing applications, the new high site initiative, and future growth. Replacement of the two older monopoles with a single tower also is consistent with the Phoenix Parks and Recreation Department's mandate of consolidation and no new growth at the South Mountain Communications Site.

No Action

Under the No Action alternative, current radio system coverage requirements would not be met causing serious limitation on emergency response. Also, funding for interoperable communications and information systems infrastructure would not be released. Ongoing activities would continue using the current funding resources, but the safety and interference concerns associated with the existing 225-foot-tall monopole would not be addressed. The No Action Alternative would not address the needs of the City, RWC, and other local, county, state, tribal, and federal interoperability users.

The No Action Alternative will serve as the baseline for assessing the impacts of the Proposed Action.

Alternatives Considered But Not Carried Forward

The City also considered a DPS site located on the western end of the South Mountain Communications Site. In order to upgrade the DPS site to meet project needs, the City would need to construct a new tower to provide adequate space and load capacity for the new communications system, and a new building and larger-capacity generator also would be required.

The Proposed Action includes the replacement of two older monopoles with a single tower and would not require a new equipment building or generator, which is more consistent with the Phoenix Parks and Recreation Department's mandate of consolidation and no new growth at the South Mountain Communications Site. If the DPS alternative were carried forward, the structural and interference problems of the existing 225-foot-tall monopole on the South Mountain Tower 1 site also would not be addressed.

SECTION 3 – EXISTING ENVIRONMENT

This section provides information about the existing environment or baseline conditions of those resources that may be impacted by the proposed action and alternatives. Features of the existing environment discussed in this section include eleven resource areas including:

Noise

Air Quality

Geology and Soils

Water Resources (surface water, groundwater, floodplains, wild and scenic rivers)

Biological Resources (wildlife, vegetation, threatened and endangered species, and wetlands)

Historic and Cultural Resources

Aesthetic and Visual Resources

Land Use (zoning, farmlands)

Infrastructure (utilities, emergency services, traffic)

Socioeconomic Resources

Human Health and Safety

The NTIA completed a programmatic EA for the PSIC grant program to assess the expected environmental impacts associated with the grant program (NTIA 2009). Sections describing the potential impacted resources were taken directly from the NTIA's programmatic EA to avoid replication of efforts.

Resource 1 – Noise

Noise is defined as unwanted sound that interferes with normal human activities or wildlife behavior, or may otherwise diminish environmental quality (U.S. Environmental Protection Agency [EPA] 1974). Noise can come from a number of sources and at varying frequencies and may be continuous or intermittent, persistent, or occasional. Noise and sound share the same physical aspects; however, noise is generally considered a disturbance, whereas sound is defined as a particular auditory effect produced by a given source (e.g., a motor running). How sound is interpreted, as either pleasant (e.g., birdsong) or unpleasant (e.g., jackhammer), depends upon the listener's current activity, past experience, and attitude toward the source (NTIA 2009:3-1).

The measurement and perception of sound involve two physical characteristics: intensity and frequency. Intensity is a measure of the strength or magnitude of the sound vibrations and is expressed in terms of pressure. The higher the sound pressure, the more intense is the perception of that sound. The frequency of the sound is the number of times per second the sound oscillates. Sirens and screeches typically are high frequency sounds, whereas low frequency sounds are characterized as a rumble or roar (EPA 1974; NTIA 2009:3-1).

The sound pressure range that can be detected comfortably by the human ear is extremely large and covers an intensity scale from 1 to 100,000,000 (EPA 1974). Because of this wide

range of sound intensity, representation using a linear index becomes difficult. As a result, a unit of A-weighted decibels (abbreviated dB or dBA)—a logarithmic measure of the magnitude of a sound as the average person hears it—is normally utilized. Humans do not hear very low or very high frequencies nearly as well as they hear middle frequencies. Using an A-weighting corrects these relative inefficiencies of the human ear to low or higher frequencies (NTIA 2009:3-1 and 3-2). Generally, changes in noise levels of 3 dBA barely would be perceived by most listeners, whereas a 10 dBA change normally is perceived as a doubling of noise levels. Typical sound levels experienced by people range from about 40 dBA, the daytime level in a typical quiet living room, to 85 dBA, the approximate level occurring near the sidewalk adjacent to heavy traffic.

Existing Conditions

Typical noise patterns associated with transmitting and receiving sites include temporary noise produced by heating and air conditioning equipment and emergency backup generators, and traffic noise created by operation and maintenance activities. Backup generators provide electric power to communications equipment as needed. Electric generators at transmitting and receiving sites typically are powered by diesel, propane, or natural gas engines. Noise from backup generators is primarily composed of engine and exhaust noise (NTIA 2009).

The existing tower site includes an equipment building that houses equipment racks on the upper level and the battery and generator rooms on the lower level. The existing backup generator, located in the lower level of the equipment building, is a 100 kilowatt, Generac® diesel-powered generator. Noise levels for 100 kilowatt models of this brand of generator range between 61 dBA to 72 dBA at 23 feet from the source (BSA Power Solutions 2010; Norwall PowerSystems 2010). The noise produced by the backup generator is buffered by the equipment building's walls, and therefore, the generator's noise levels are much lower outside of the equipment building. The backup generator is only used occasionally during equipment testing and maintenance or during a power loss, and has a minimal impact on ambient noise levels.

The temporary construction staging area and existing materials stockpile area exhibit typical noise patterns of a mountain park/recreational area. Both areas are along low-volume traffic roadways. The ambient noise levels may increase in the materials stockpile area during activity at the adjacent quarter-midget race track, which occurs mostly on weekends.

Resource 2 – Air Quality

Air quality is a factor of the type and amounts of pollutants emitted into the atmosphere, pollutants that currently exist in the atmosphere, size and topography of the air basin, and prevailing meteorological conditions (NTIA 2009:3-4). The Clean Air Act amendments of 1990 authorized the EPA to designate those areas that have not met the National Ambient Air Quality Standards (NAAQS) as nonattainment areas and to classify them according to their degree of severity. States that fail to attain the NAAQS for any of the criteria pollutants are required to submit state implementation plans that outline actions that will be taken to attain compliance.

Existing Conditions

The project area lies within nonattainment areas for ozone and particulate matter equal to or smaller than 10 microns in diameter (PM₁₀). The nonattainment area for eight-hour ozone is a large area of Maricopa County and a small portion of Pinal County. The nonattainment area for PM₁₀ is an approximately 48-by-60-mile rectangular section of eastern Maricopa County plus a 6-by-6-mile section that includes the city of Apache Junction in Pinal County (Arizona Department of Environmental Quality 2010).

The study area also lies within an area that formerly was a nonattainment area for carbon monoxide (CO), but has been reclassified as a maintenance area. A maintenance area is defined as an area that has met the NAAQS for a particular criteria pollutant but must continue to meet the NAAQS for a defined period before it can be reclassified as an attainment area (Arizona Department of Environmental Quality 2010).

Backup generators are commonly used at transmitting and receiving sites to provide backup electric power during an emergency and are operated only as needed. Generator engines can run on gasoline, diesel, natural gas, or liquid propane and are a source of emissions. Existing backup generators do not have to meet any emissions standards, but they must be operated according to the generator manufacturer's maintenance and operating instructions to help minimize emissions (40 CFR §§ 89 and 90) (NTIA 2009:4-7).

The existing tower site currently has a backup generator that would not be replaced or altered. The generator is located within an existing equipment building and is operated in accordance to the manufacturer's instructions.

Resource 3 – 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 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 (NTIA 2009:3-8).

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 (NTIA 2009:3-8 and 3-9).

Soil resources 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 one in consultation with the Natural Resources Conservation Service (NRCS) of the U.S. Department of Agriculture (USDA) (NTIA 2009:3-9).

Existing Conditions

The Proposed Action is at an elevation of approximately 2,600 feet above sea level on the spine of South Mountain, which defines the southern edge of the Phoenix Basin. According to the USDA-NRCS (2010), the soil in the tower location and temporary staging area is classified as Cherioni complex with 65 percent rock outcrop. Slopes are 5 to 70 percent. Depth to lithic bedrock is 6 to 20 inches. The parent material is alluvium derived from andesite and/or colluvium derived from andesite. The soil in the stockpile area is 100 percent Ebon gravelly loam with slopes of 0 to 8 percent. The depth to a restrictive feature is more than 80 inches. The parent material is gravelly alluvium derived from granite and/or gravelly alluvium derived from gneiss.

Geologic resources and soils were previously disturbed at the tower location and temporary staging area during the construction of the existing facility. The stockpile area has been previously graded and currently is used for materials storage.

Resource 4 – 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—make up 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 (NTIA 2009:3-12).

Federal statutes, executive orders, State statutes, and State agency regulations and directives protect water quality and the beneficial uses of water resources. Executive Order 11988 (Floodplain Management) and Executive Order 11990 (Protection of Wetlands) mandate the control of activities that indirectly influence water quality. Executive Order 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 (NTIA 2009:3-12 and 3-15).

The Safe Drinking Water Act (SDWA) provides for the protection of public health by regulating the U.S. public drinking water supply (P.L. 93-23, 42 U.S.C. §300f). The SDWA aims to protect drinking water and its sources (e.g., rivers, lakes, reservoirs, springs, and groundwater wells) and authorizes the EPA to establish national health-based standards for drinking water to protect against naturally occurring and man-made contaminants. Every public water system in the United States is protected by the SDWA. Under Section 1424(e) the SDWA prohibits Federal agencies from funding actions that would contaminate a sole-source aquifer or recharge area. Any Federally funded project (including those that are partially Federally funded) with the potential to contaminate a designated sole-source aquifer is subject to review by the EPA. EPA's regulations implementing the SDWA requirements are found in 40 CFR 141-149. Federal

SDWA groundwater protection programs are generally implemented at the State level (NTIA 2009:3-15).

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 washings” (channels that carry intermittent or seasonal flow) are considered “waters of the United States.” Administered by the 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 CFR 131 (NTIA 2009:3-12).

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 (NTIA 2009:3-12).

Existing Conditions

The South Mountain Communications Site is at an elevation of approximately 2,600 feet above sea level on South Mountain. A review of the Federal Emergency Management Agency’s (FEMA) Impact Hazard web site indicated that the proposed project is not within a 100-year FEMA-designated flood zone. There also are no wetlands, coastal management zones, or wild and scenic rivers in the project vicinity. Average annual precipitation is about 8 inches, with the greatest amounts falling during the summer monsoon season in July and August and during winter storms from December to March.

Resource 5 – 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 the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), or a State (NTIA 2009:3-19).

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 significant areas 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 the USFWS and NMFS, must ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened 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 (NTIA 2009:3-19; USFWS 2007).

The USFWS 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 USFWS or NMFS. After reviewing the BA, USFWS 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 USFWS 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 (NTIA 2009:3-19).

Executive Order 11990 (Protection of Wetlands) requires Federal agencies to provide leadership and take action to minimize the destruction, loss, or degradation of wetland habitat and to preserve and enhance the natural and beneficial values of wetland habitats in carrying out the agency’s responsibilities. Wetland habitats generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river outflows, mud flats, and natural ponds (NTIA 2009:3-20).

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). The USFWS’s Division of Migratory Bird Management established several initiatives in the past decade to research collisions of birds with communications towers. In 1999, the USFWS established the Communication Tower Working Group, composed of government, industry, and academic groups, to study and determine tower construction approaches to prevent bird strikes (NTIA 2009:3-20).

Existing Conditions

The project area is located within the Lower Colorado Subdivision of Sonoran Desertscrub vegetation community (Brown 1994). Commonly occurring species include creosote bush (*Larrea tridentata*), triangle-leaf bursage (*Ambrosia deltoidea*), foothills paloverde (*Parkinsonia microphylla*), brittlebush (*Encelia farinosa*), and various species of cacti including saguaro (*Carnegiea gigantea*), cholla (*Cylindropuntia* spp.), and barrel cactus (*Ferocactus wislizeni*).

Wildlife species common in Sonoran desertscrub in the project area include desert cottontails (*Sylvilagus auduboni*), black-tailed jackrabbit (*Lepus californicus*), Harris’ antelope ground squirrel (*Ammospermophilus harrisi*), coyote (*Canis latrans*), and western diamondback rattlesnake (*Crotalus atrox*). Common bird species include the cactus wren (*Campylorhynchus brunneicapillus*), Gambel’s quail (*Callipepla gambelii*), mourning dove (*Zenaida macroura*), and red-tailed hawk (*Buteo jamaicensis*).

The USFWS list of threatened, endangered, proposed, and candidate species for Maricopa County was reviewed by a qualified biologist (Jeff Johnson, URS Corporation) on July 7, 2009. This list was reviewed to identify species or critical habitat that would or would not be affected by implementation of the proposed project. The results are presented in Table 1.

On July 7, 2009, a query of the Arizona Game and Fish Department's (AGFD) Online Environmental Review Tool database was completed for the project vicinity. The online review query results indicated that there are records for the Sonoran population of desert tortoise (*Gopherus agassizii*) and the chuckwalla (*Sauromalus ater*) within three miles of the project area. The chuckwalla is a Federal Species of Concern and the desert tortoise (Sonoran population) is designated as Wildlife of Special Concern by the State of Arizona and as a Federal Species of Concern.

Plant species covered under the Arizona Native Plant Law were observed during a site visit conducted on July 8, 2009. Six Salvage Restricted species, saguaro, barrel cactus, strawberry hedgehog cactus (*Echinocereus engelmannii*), teddy bear cholla (*Cylindropuntia bigelovii*), buckhorn cholla (*Cylindropuntia acanthocarpa*), and ocotillo (*Fouquieria splendens*) were observed as well as one Salvage Assessed species, foothills paloverde (*Parkinsonia microphylla*).

**Table 1
Federally Threatened, Endangered, and Candidate Species in Maricopa County**

Common Name	Scientific Name	Status	Suitable Habitat Present?	Occupied Habitat Present?	Critical Habitat Present?	Species Affected?	Critical/Suitable Habitat Affected?
Mammals							
Lesser long-nosed bat	<i>Leptonycteris curasoae yerbabuena</i>	E	Yes*	No	No	No	No
Sonoran pronghorn	<i>Antilocapra americana sonoriensis</i>	E	No	No	No	No	No
Birds							
Bald eagle	<i>Haliaeetus leucocephalus</i>	T	No	No	No	No	No
California brown pelican	<i>Pelecanus occidentalis californicus</i>	PD	No	No	No	No	No
California least tern	<i>Sterna antillarum browni</i>	E	No	No	No	No	No
Mexican spotted owl	<i>Strix occidentalis lucida</i>	T	No	No	No	No	No
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	E	No	No	No	No	No
Yuma clapper rail	<i>Rallus longirostris yumanensis</i>	E	No	No	No	No	No
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	C	No	No	No	No	No
American peregrine falcon	<i>Falco peregrinus anatum</i>	D	No	No	No	No	No
Fish							
Desert pupfish	<i>Cyprinodon macularius</i>	E	No	No	No	No	No
Gila topminnow	<i>Poeciliopsis occidentalis occidentalis</i>	E	No	No	No	No	No
Razorback sucker	<i>Xyrauchen texanus</i>	E	No	No	No	No	No
Woundfin	<i>Plagopterus argentissimus</i>	E	No	No	No	No	No
Roundtail chub	<i>Gila robusta</i>	C	No	No	No	No	No
Plants							
Arizona cliffrose	<i>Purshia subintegra</i>	E	No	No	No	No	No
Arizona agave	<i>Agave arizonica</i>	D	No	No	No	No	No

NOTES: C = candidate, D = delisted, E = endangered, PD = proposed delisted, T = threatened

SOURCE: U.S. Fish and Wildlife Service 2009

*Foraging plants (saguaros) for the species are present in the project vicinity

Several salvage restricted plants were cataloged during the survey of the construction staging area on September 21, 2009. The layout of the main staging area included a single hedgehog cactus and an immature foothills paloverde. The arrangement of the auxiliary staging area included 10 to 13 foothills paloverde plants. A saguaro cactus and barrel cactus occurred immediately outside the western boundary of the main staging site. Another saguaro cactus was located in the vegetation between the two parts of the overall staging area. Additional plant species observed in the overall staging area included four-winged saltbush (*Atriplex canescens*), triangle-leaf bursage, creosotebush, desert senna, brittlebush, and white rhatany (*Krameria grayi*).

The material stockpile area showed evidence of many years of use and consisted of rock and soil material that has been flattened and spread along the ground's surface. The surrounding vegetation was characteristically upper Sonoran desertscrub. An ephemeral wash occurs immediately south of the material stockpile site. There was no evidence of previous dumping of excavated materials into the wash. Sparse, successional plant cover colonize the margins of the excavated material stockpile site. The most common species include creosotebush, triangle-leaf bursage, brittlebush, and flat topped buckwheat (*Eriogonum deflexum* var. *deflexum*). A foothills paloverde was found growing near the southwestern edge of the site, and a desert ironwood (*Olneya tesota*) was observed growing at the northwestern margin of the site.

A review of the Lone Butte, Arizona, United States Geological Survey 7.5 Minute Topographic Map and the USFWS National Wetlands Inventory Data (<http://www.fws.gov/wetlands/data/>) identified no mapped wetlands, and the site visit found no standing water or flora or fauna species that are indicators of wetlands.

Resource 6 – Historic and Cultural Resources

Regulations implementing NEPA stipulate that federal agencies consider the consequences of their undertakings (such as providing Federal funds for the proposed project) on historical and cultural resources (40 CFR 1502.16[g]). Section 106 of the National Historic Preservation Act requires that Federal agencies also consider the effects of their undertakings on properties eligible for the National Register of Historic Places (National Register). Regulations for *Protection of Historic Properties* (36 CFR 800) implement Section 106 by defining procedures for agencies to consult with the State Historic Preservation Officer and other interested parties.

To be considered for inclusion in the National Register, properties must be at least 50 years old (unless they have exceptional significance) and possess integrity of location, design, setting, feeling, materials, workmanship, and association. To be eligible, properties must meet one or more of the following criteria to demonstrate their significance in American history, architecture, archaeology, engineering, or culture:

- | | |
|-------------|---|
| Criterion A | Be associated with significant historical events or trends |
| Criterion B | Be associated with historically significant people |
| Criterion C | Have distinctive characteristics of style or type or have artistic value |
| Criterion D | Have yielded, or have potential to yield, important information (36 CFR 60.4) |

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 (NTIA 2009:3-26).

Traditional cultural properties include archaeological resources, structures, neighborhoods, prominent topographic features, habitats, or areas where particular plants, animals, or minerals exist that any cultural group considers to be essential for the preservation of traditional cultural practices (National Park Service 1998; NTIA 2009:3-26).

The National Historic Preservation Act 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. However, 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:

1. **Establish whether the Proposed Action constitutes an undertaking.** Per 36 CFR 800.16, and 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 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 in the National Register that may be affected by the proposed action.
3. **Assess effects of the Proposed Action on eligible historic properties.** If the assessment determines no historic properties or no adverse effect to listed or 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 listed or eligible historic properties through consultation with the SHPO/THPO and Advisory Council on Historic Preservation, as necessary.** (NTIA 2009:3-26).

In general, actions that have the potential to affect historic properties are those that involve modifications to land or buildings and structures, including construction, grading, excavation, maintenance, rehabilitation, and renovation, or the sale or lease of a historic property. Similarly, actions that have the potential to impact historic and cultural resources include those that affect

buildings, sites, structures, districts, and objects listed in or eligible for the National Register; cultural items as defined by the Native American Graves Protection and Repatriation Act of 1990 (P.L. 101-601, 104 Statute 3048); American Indian sacred sites for which access is protected under the American Indian Religious Freedom Act of 1978 (P.L. 95-341, 92 Statute 469); archaeological resources as defined by the Archaeological Resources Protection Act of 1979 (P.L. 96-95, 16 U.S.C. §470); and archaeological artifact collections and associated records as defined by 36 CFR Part 79.

A cultural resource survey (Albush and others 2009) was completed to provide information for evaluating the project alternatives assessed in this EA and also to support Section 106 consultations. The area of potential effects for direct construction impacts was defined as the areas of potential ground disturbance and any property that would be physically altered by the project. The area of potential effects for visual impacts of the proposed replacement tower was defined as extending 0.75 mile from replacement tower. That distance is consistent with Federal Communications Commission guidelines for wireless communications towers 200 to 400 feet tall.

Existing Conditions

Records were reviewed to identify and compile information about prior cultural resource studies and previously recorded archaeological and historical sites. The records review area was defined to cover the area of potential effects for visual impacts and extended 0.75 mile around the proposed replacement tower. Records also were reviewed for an area extending 0.75 mile beyond the temporary materials stockpile area.

The records review relied on the AZSITE Cultural Resources Inventory and the files of Pueblo Grande Museum and Phoenix Historic Preservation Office, including the Phoenix Historic Property Register. AZSITE is a geographical information system database that includes records of the AZSITE Consortium members (Arizona State Museum, Arizona State University, Museum of Northern Arizona, and SHPO), and other participating agencies, such as the Bureau of Land Management (AZSITE Consortium 2009). AZSITE includes information about properties listed in the National Register. The AZSITE database incorporates a vast quantity of information about prior studies and archaeological and historical resources recorded by thousands of researchers over many decades for a variety of purposes. The information in the database varies in completeness and accuracy.

Other records on file at the Arizona State Museum and reports of selected prior studies were reviewed to supplement the AZSITE database. General Land Office plats were reviewed for indications of potential unrecorded historical resources. The collected information was compiled in a geographic information system database.

The records review identified information about three previously recorded cultural resources within the records review area (Table 2). Site AZ T:12:140(ASM) is an abandoned historical radio transmitter facility built by the Arizona Highway Patrol in or prior to 1946 (Wenker 2000).¹

¹ The Arizona Highway Patrol built the first facility on ridge-top South Mountain Communications Site in 1943, but the first tower in the South Mountains apparently was a beacon erected in 1933 for the San Diego-El Paso Airway. The beacon was erected at the eastern end of the range in Section 5, Township 1 South, Range 4 East (Bostwick and Howard 1992). The decision to allow the beacon to be installed in the park apparently was based on the public good rather than for revenue generation because the City of Phoenix charged an annual fee of only one dollar for the lease of 100 square feet for the beacon.

When recorded, it was recommended that the facility be considered eligible for the National Register for its potential to yield important information (Criterion D). Site AZ T:12:140(ASM) is within the area of potential effects for visual impacts, but is not within the proposed project area.

Table 2
Previously Recorded Cultural Resources in the Records Review Area

	Site Name/Number	Description	Register Status	Reference
1	AZ T:12:140(ASM)	remnants of an abandoned radio transmitter facility constructed in or before 1946	recommended eligible, Criterion D	Wenker 2000
2	South Mountain Park and Preserves Historic District,	City of Phoenix park with facilities built by the Civilian Conservation Corps between 1933 and 1942	Phoenix Register listed; National Register nomination under Criterion A in progress	City of Phoenix 2009
3	South Mountain (Greasy Mountain, Muhadag, Avikwaxós) traditional cultural place	mountain that has prominent role in oral traditions and songs of the Akimel O’odham (Pima) and Pee Posh (Maricopa)	Gila River Indian Community and Salt River Pima-Maricopa Indian Community have passed tribal resolutions designating South Mountain as a sacred place/traditional cultural property	Gila River Indian Community 2007; Salt River Pima-Maricopa Indian Community 2007

NOTES: National Register = National Register of Historic Places, Phoenix Register = Phoenix Historic Property Register

The records review determined that the project area is within the South Mountain Park and Preserves Historic District, which encompasses the entire city park, located between Baseline Road and the alignment of Chandler Boulevard on the north and south, and between 47th Avenue and 48th Street on the west and east. The park is one of the largest master planned public parks in the United States, and was one of the earliest to consider natural setting, wilderness areas, wildlife refuges, and the protection of archaeological resources. The South Mountain Park and Preserves Historic District was added to the City of Phoenix Historic Property Register in 1989 and is being nominated to the National Register under Criterion A.

Twenty-three contributing buildings and structures built by the Civilian Conservation Corps between 1933 and 1942 within the historic district were identified within the records review area. None of those buildings are within the project area and only two—the Dobbins lookout shelter and another unnamed lookout shelter—are within the area of potential effects for visual impacts of the proposed replacement tower. The shelters are built of granite boulders with segmental arch openings and stone benches built into the interior walls. The shelters have flat wooden roofs sheathed in corrugated metal and, with the exception of the roofing, each shelter retains its historic materials.

The Gila River Indian Community and Salt River Pima-Maricopa Indian Community have passed resolutions declaring that they consider the South Mountains to be a sacred place/traditional cultural property because of the prominent role that the mountains have in oral traditions and songs of the Akimel O’odham (Pima) and Pee Posh (Maricopa) tribes.

The cultural resource survey did not identify any historical or archaeological artifacts or features. Most of the area surveyed was previously disturbed or very steep, rocky terrain. The visibility of the ground surface ranges from about 85 to 100 percent, and vegetation was not a significant impediment for recognizing archaeological resources.

Resource 7 – 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 (NTIA 2009:3-28).

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 (NTIA 2009:3-28).

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 Section 106 of the National Historic Preservation Act. 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 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 (P.L. 88-578, 16 U.S.C. §460) may need to be reviewed (NTIA 2009:3-28).

Existing Conditions

The project area is within the City of Phoenix South Mountain Park, which encompasses more than 16,000 acres and has 51 miles of recreational trails (City of Phoenix 2010). The South Mountain Park and Preserves Historic District, which encompasses the entire city park, was added to the City of Phoenix Historic Property Register in 1989 and is being nominated to the National Register under Criterion A.

There currently are 46 towers (including monopoles, guyed towers, and lattice towers) within the communications site and 41 equipment buildings used by 104 licensees. The tallest tower is 416 feet tall, and 12 towers are taller than 250 feet. Because of the undulating topography of the spine of South Mountain, the tower foundations are at various heights.

Resource 8 – 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 means of land use descriptions and definitions vary among jurisdictions (NTIA 2009:3-28).

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 (NTIA 2009:3-29).

Existing Conditions

The City has designated South Mountain Park as a mountain preserve and its general land use is public open space (Figure 4). The official zoning of the park is RE-35 HP, which is single family residence with historic preservation overlay. The historic preservation overlay is in place because South Mountain Park and Preserves Historic District, which encompasses the entire city park, was added to the City of Phoenix Historic Property Register in 1989 and is being nominated to the National Register under Criterion A. There are no residences in the project vicinity.

Resource 9 – 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) (NTIA 2009:3-31).

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 (NTIA 2009:3-31).

Public utilities can be privately or publicly owned. Public utilities often are governed by a Public Utilities Commission that regulates the rates and services of a public utility. In recent years, several laws have been passed for 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 (NTIA 2009:3-31).

Regulations governing communications infrastructure include Part 17 Construction, Marking, and Lighting of Antenna Structures of the Federal Communications Commission (FCC) regulations (47 CFR Chapter 1), which prescribes procedures for antenna structure registration and requires the 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 alternation in height of existing antennas 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, or 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 proximity to airports; the minimum height for required marking or lighting would decrease in these areas (NTIA 2009:3-31 and 3-32).

Existing Conditions

The proposed project area has a combination of utilities (electricity and communications) and an adequate network of roads provides access to the project area.

There is a small private airstrip about 3.5 miles northwest of the project area in Laveen, and Phoenix Sky Harbor International Airport is about 7 miles north of the project area. There are 46 towers within the South Mountain Communications Site and 12 of these are more than 250 feet tall. Because of their overall height, towers within the existing communications site currently have FAA required markings and/or lighting.

Resource 10 – 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 also are influenced by socioeconomic factors (NTIA 2009:3-34).

Executive Order 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 Executive Order 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 Executive Order 12898 are:

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. (NTIA 2009:3-34 and 3-35).

Existing Conditions

The proposed project is not located in low-income or minority areas.

Resource 11 – 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. Construction site safety is largely a matter of adherence to regulatory requirements imposed for the benefit of employees and implementation of operational practices that reduce the risks of illness, injury, death, and property damage. 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 (NTIA 2009:3-36).

Existing Conditions

There are safety protocols in place for maintenance and operation activities at the existing facility. In order to minimize health and safety risks, access to the facility is restricted to authorized personnel. Best Management Practices (BMP) for the handling, storage, use, and disposal of diesel for the existing backup generator also are implemented.

SECTION 4 – ENVIRONMENTAL CONSEQUENCES

Resource 1 – Noise

Noise analyses typically evaluate potential changes to the existing noise environment that would result from implementation of a Proposed Action (NTIA 2009:4-2).

Proposed Action

Construction-Related Impacts – There would be a temporary increase in localized noise generated during the South Mountain Tower 1 construction activities, which may result in short-term, negligible adverse impacts. The use of heavy equipment during construction activities may result in short-term minor adverse impacts on the noise environment, but the construction activities will occur in an unpopulated area. Noise from the construction activities will vary depending on the distance from the source of the noise. Construction-related noise generation would last only for the anticipated 90-day duration of construction activities and occur during normal working hours (i.e., 7:00 a.m. to 5:00 p.m.), when noise is tolerated better because of the masking effect of background noise, with equipment being shut off when not in use. Evening noise levels likely would drop to the ambient noise levels of the project area (NTIA 2009:4-3).

It is anticipated that noise impacts from the South Mountain Tower 1 construction activities would be short-term and would not exceed typical noise levels. Construction activities would occur in a remote area of South Mountain Park and there are no residential areas in the vicinity. Construction-related noise impacts would not be significant.

Operations-Related Impacts – After construction activities have concluded, the ambient noise level would return to its normal level. The City would continue to use its existing backup generator within the existing equipment building and the new self-supporting tower is not expected to generate noise. Therefore, the Proposed Action is not expected to impact the current ambient noise environment at the site.

No Action Alternative

Under the No Action Alternative, there would be no new construction. Ambient noise would remain at the existing level and no adverse impacts on the noise environment would occur.

Resource 2 – Air Quality

Impacts to air quality can come from a variety of sources located at transmitting and receiving sites. 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 also could occur as a result of the operation of backup generators, which burn fossil fuels (NTIA 2009:4-5).

Proposed Action

Construction-Related Impacts – Air quality impacts during construction would originate from emission of construction vehicles and equipment and fugitive dust stirred up during ground disturbing activities. Both would be temporary and of limited duration. The use of heavy equipment during construction activities may result in short-term minor adverse impacts on air quality on and near the proposed site. The construction-related air quality impacts would last only during the 90-days of construction activities and occur during normal working hours (i.e., 7:00 a.m. to 5:00 p.m.), and would not result in increases in air pollutants greater than exceedance levels. Therefore, it is anticipated that short-term negligible adverse impacts would be expected as a result of construction activities, but there would be no significant impact to air quality from construction activities (NTIA 2009:4-6).

Maricopa County requires a dust permit for projects that require ground disturbance of greater than 0.1 acre. Because the Proposed Action will require more than 0.1 acre of ground disturbance, the City will acquire a dust permit from the county, which requires the implementation of dust control measures. The City will further reduce or mitigate minor emissions and fugitive dust from construction through the use of BMPs. BMPs for dust control could include spraying water to minimize dust, limiting the area of uncovered soil to the minimum needed for each activity, siting of staging areas to minimize fugitive dust, using a soil stabilizer (chemical dust suppressor), mulching, using a temporary gravel cover, limiting the number and speed of vehicles on the site, and covering trucks hauling dirt. BMPs for construction vehicle and equipment emissions could include limiting vehicle idling time, using low or ultra-low sulfur fuel (including biodiesel), conducting proper vehicle maintenance, and using electric instead of gas-powered tools (NTIA 2009:4-6).

The South Mountain Tower 1 project will require less than one-third acre of ground disturbance, which is unlikely to result in any exceedance of air quality standards, regulated release of Hazardous Air Pollutants (HAP), or more than a *de minimis* increase in emissions. The Proposed Action would have no significant impact to air quality from construction activities.

Operations-Related Impacts – After the construction activities have concluded, the ambient air quality level would return to its normal level. Implementation of the Proposed Action would not result in the long-term operation of significant emission-generating sources or significantly increase or alter the existing ambient air quality levels. There would be no significant impact to air quality from operations-related activities.

No Action Alternative

Under the No Action Alternative, there would be no renovations or new construction within the existing communications facility. There would be no increase in air quality impacts from the No Action Alternative.

Resource 3 – 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 (NTIA 2009:4-7).

Proposed Action

Construction-Related Impacts – Minor, temporary impacts to geology and soils may occur from the construction of the South Mountain Tower 1 project as the result of ground disturbing activities, such as grading and digging. Geologic resources and soils were previously disturbed during the construction of the existing facility, reducing the likely presence of pristine geologic resources and possibility of adverse impacts.

Ground disturbing activities would be limited to less than one-third acre, which is unlikely to result in a significant amount of erosion. Although steep slopes are prevalent at the tower site and temporary staging area, the potential for soil erosion and runoff would be reduced because of the rocky soils and the use of BMPs to control erosion. BMPs for soil erosion include silt fencing or straw bales to control erosion, limiting the area of uncovered soil to the minimum needed for each activity, siting of staging areas to minimize erosion, replanting as soon as practicable, mulching, using temporary gravel cover, and limiting the number and speed of vehicles on the site (NTIA 2009:4-10). The USDA soil classification for the Proposed Action did not identify any prime or unique soil types in the project area, and there are no farmlands in the project vicinity. There would be no significant impact to geology and soils from construction-related activities.

Operations-Related Impacts – The operation of the South Mountain Tower 1 site would not involve any ground disturbing activities or other activities that would affect geology and soils. There would be no impacts to geology and soils from operation of the facility.

No Action Alternative

Under the No Action Alternative, there would be no new construction of transmitting and receiving projects, removal of existing towers, and no ground disturbing activities. There would be no impact to geology and soils as a result of the No Action Alternative.

Resource 4 – 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. The use of erosion control BMPs to reduce impacts is common practice and may improve water quality at the 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 (NTIA 2009:4-9).

Proposed Action

Surface Water and Ground Water

Construction-Related Impacts – Water quality impacts during the construction of the South Mountain Tower 1 project could occur from erosion and runoff resulting from soil disturbance.

Vehicle and equipment refueling has the potential for spills of petroleum products. These activities would be temporary and of limited scope.

Because ground disturbance activities would be limited to less than one-third acre, construction activities are unlikely to result in a significant amount of erosion and runoff. The minor amount of erosion and runoff that could result from construction-related activities would be further reduced by the rocky soils in the tower site and temporary staging area and through the use of BMPs to control erosion. BMPs for soil erosion include silt fencing or straw bales to control erosion, limiting the area of uncovered soil to the minimum needed for each activity, siting of staging areas to minimize erosion, replanting as soon as practicable, mulching, using temporary gravel cover, and limiting the number and speed of vehicles on the site (NTIA 2009:4-10).

Chemical, physical, or biological effects to water resources are not expected to result in the violation of water quality standards and criteria. There would be no significant impact to water quality from construction activities.

Operations-Related Activities – Impacts relating to operations of the South Mountain Tower 1 facility would be limited to erosion that may occur before the site is brought back to its original condition. BMPs from the construction stage should be continued until the site is restored. Chemical, physical, or biological effects to water resources are not expected to result in the violation of water quality standards and criteria. There would be no significant impact to water quality from operations activities.

Accidental fuel spills that could occur during refueling of the backup generator also could contaminate surface water. Because the existing backup generator would not be replaced as part of this project, operation of the generator is not considered an operations-related activity for the South Mountain Tower 1 project. The existing spill plan should be followed to guide the required response in the event of a spill.

Floodplains

The FEMA Flood Insurance Rate Map Panels 04013C2605F and 04013C2610F dated September 30, 2005 indicate that the project area is not located within a flood hazard area. The Proposed Action is not within the 500-year floodplain, and there would be no impact to floodplains.

No Action Alternative

Under the No Action Alternative, there would be no PSIC-funded site upgrades and no risk of soil erosion or runoff from construction-related activities or hazardous spills from pesticides or fertilizers used to re-vegetate a disturbed site. Therefore, there would be no increase in impacts to either water resources or floodplains from the No Action Alternative.

Resource 5 – 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 behavior impacts to certain animal species that could affect feeding and reproductive patterns and habits (NTIA 2009:4-11).

Proposed Action

Wildlife, Wildlife Habitat, and Vegetation

Construction-Related Impacts – On July 7, 2009, a query of the AGFD Online Environmental Review Tool database was completed for the project vicinity. The online review query results indicated that there are records for the Sonoran population of desert tortoise (*Gopherus agassizii*) and the chuckwalla (*Sauromalus ater*) within three miles of the project area. The chuckwalla is a Federal Species of Concern and the desert tortoise (Sonoran population) is designated as Wildlife of Special Concern by the State of Arizona and as a Federal Species of Concern.

A site visit conducted on July 8, 2009 did not find evidence of the presence of either species within the project area; however, the vegetation community is suitable for use by desert tortoise. Rock outcrops, which are suitable habitat for the chuckwalla, are present in the project area. Rock outcrops should be avoided whenever possible during construction of the proposed tower; in addition the AGFD Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects (AGFD 2007) should be followed if a desert tortoise is found on site (refer to URS Biological Review Report for additional information).

Plant species covered under the Arizona Native Plant Law were observed during a site visit conducted on July 8, 2009. Six Salvage Restricted species as well as one Salvage Assessed species were observed. These species were observed away from the area to be disturbed during the proposed project; however, if the project footprint does require the removal of any of these plants the Arizona Department of Agriculture would need to be contacted (refer to URS Biological Review Report for additional information).

Several salvage restricted plants were cataloged during a survey of the construction staging area on September 21, 2008. The recommended construction staging area has been configured and subdivided to avoid disturbance to existing saguaro, larger groups of mature foothills paloverde, and a wash at the base of the slope (Figure 5). Two saguaro cacti immediately outside the staging areas should remain intact and should be isolated from activity. Tower sections should not be staged and trucks, trailers, and other heavy equipment should refrain from driving over the root systems of these cacti, which would avoid damage or possible mortality to these plants. The root system of this cactus radiates out to about the height of the plant. A small ephemeral wash lies 5 to 10 meters outside the construction staging area, and equipment, personnel, and materials should avoid the wash to prevent damage to the wash bed and vegetation along the banks, which would lessen the likelihood of erosion. The configuration of the construction staging area would leave the wash undisturbed (refer to URS Biological Review Report for additional information).

Two salvage restricted species were observed at the material stockpile area, which should be avoided. A large ephemeral wash occurs about 10 meters south of the stockpile area, but the configuration of the stockpile area would leave the wash undisturbed (refer to URS Biological Review Report for additional information).

Correspondence with the AGFD indicated that the Proposed Action would have no significant adverse effects to wildlife resources. Operations-related activities are expected to have no significant impact on wildlife, wildlife habitat, and vegetation.

Operations-Related Impacts – Routine maintenance activities at transmitting and receiving sites could include landscaping activities and pest control to maintain vegetation. Operations practices also could lead to habitat degradation and mortality of some wildlife species (NTIA 2009:4-13). The South Mountain Tower 1 site would retain its existing natural desert landscape, which eliminates the need for landscaping activities such as mowing and weed control. Because the Proposed Action includes the installation of a replacement tower at an existing facility, operations practices would not change significantly.

Following the completion of site development, potentially adverse impacts on wildlife species sensitive to disturbance also could result from temporary noise generated by climate control equipment or backup generators at the project site. This temporary and low level, but recurring, disturbance might exclude wildlife species or promote colonization by tolerant species (NTIA 2009:4-13). However, no new climate control equipment or backup generators would be installed as part of the Proposed Action.

Correspondence with the AGFD indicated that the Proposed Action would have no significant adverse effects to wildlife resources. Operations-related activities are expected to have no significant impact on wildlife, wildlife habitat, and vegetation.

Migratory Birds

Construction-Related Impacts – Impacts to migratory birds from construction activities could occur during the removal of the existing monopole and the installation of the new self-supporting lattice tower, which would be accomplished by using a portable crane. However, these potential impacts would be limited to the 90-day construction period. Operations-related activities are expected to have no significant impact on migratory birds.

Operations-Related Impacts – The new 250-foot-tall galvanized steel lattice tower would be installed west and about 15 feet downhill of the existing 225-foot-tall monopole that would be removed. Therefore, the elevation of the top of the replacement tower would be only about 10 feet higher than the top elevation of the current monopole. Migratory bird species may be present in the project area, but because the Proposed Action would involve minimal changes to the location and elevation of the existing monopole, no additional impacts on migratory birds are expected. The removal of the nearby 125-foot-tall monopole also could reduce impacts to migratory birds by decreasing the possibility of collision.

The USFWS recommends that for towers over 199 feet above ground level that the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used (USFWS 2000). However, the FAA has determined that because there are other taller towers in the South Mountain Communications Site, lights do not need to be installed on the proposed replacement tower and no other markings are required. Operations-related activities are expected to have no significant impact on migratory birds.

Threatened or Endangered Species

Construction-Related Impacts – The USFWS list of threatened, endangered, proposed, and candidate species for Maricopa County was reviewed by a qualified biologist (Jeff Johnson, URS Corporation) on July 7, 2009. This list was reviewed to identify species or critical habitat that would or would not be affected by implementation of the proposed project. The project will not impact threatened and endangered species and/or critical habitats (Federal and State) (URS 2009).

Correspondence with the USFWS indicated that the Proposed Action would have no effect on federally listed species and critical habitats. Operations-related activities are expected to have no significant impact on threatened or endangered species.

Operations-Related Impacts – No operations-related impacts to threatened and endangered species are expected and operations would have no significant impact on this resource.

Wetlands

Construction-Related Impacts – Since no wetlands were observed in the project vicinity, construction-related impacts would have no impact on wetland habitats.

Operations-Related Impacts – Since no wetlands were observed in the project vicinity, operations-related impacts would have no impact on wetland habitats.

No Action Alternative

Under the No Action Alternative, there would be no updates to the facility and the City would continue to maintain the existing site conditions, facilities, and operations. No significant impacts on vegetation and wildlife, migratory birds, threatened or endangered species, or wetlands would occur under the No Action Alternative.

Resource 6 – Historic and Cultural Resources

Assessment of potential impacts on National Register-eligible properties was based on criteria defined by regulations for *Protection of Historic Properties* (36 CFR 800). Those regulations define an effect as a direct or indirect alteration of the characteristics of a historic property that qualify it for inclusion in the National Register. Effects are adverse when the alterations diminish the integrity of a property's location, design, setting, materials, workmanship, feeling, or association. Impacts to historic and cultural resources can occur both from physical disturbance and from aesthetic changes to a historic property and its viewshed.

Proposed Action

Construction-Related Impacts – Cultural resource studies, including a records review and survey, were conducted for the South Mountain Tower 1 project (Albush 2009). The records review did not identify any previously recorded historic or cultural resources within the area of potential effects for construction impacts (Figure 6). The cultural resource survey also did not identify any historical or archaeological artifacts or features within these areas.

An abandoned 1946 radio transmitter facility [designated AZ T:12:140(ASM)] was identified within the area of potential effects for visual impacts and, when recorded, was recommended eligible for the National Register for its potential to yield important information (Criterion D). The proposed project would not disturb the radio transmitter facility, which is located at the opposite end of the South Mountain Communications Site from the proposed replacement tower. There are 46 towers (including monopoles, guyed towers, and lattice towers) within the communications site and 41 equipment buildings used by 104 licensees. The tallest tower is 416 feet tall, and 12 towers are taller than the proposed 250-foot-tall replacement tower. Because of the undulating topography of the spine of South Mountain, the tower foundations are at various heights; 19 of the existing towers would be above the absolute height of the proposed replacement tower. In views to the east from the radio transmitter facility, the proposed replacement tower would be visible but would be a minor background element behind the other towers. The proposed project would have no effect on the potential of the equipment shelter to yield important information.

The Proposed Action is within the South Mountain Park and Preserves Historic District, which is being nominated to the National Register under Criterion A (association with significant historic events). Two historical lookout shelters that are contributing buildings of the South Mountain Park and Preserves Historic District are within the area of potential effects for visual impacts. The proposed project would not disturb those buildings or other buildings and structures identified as contributing elements of the district. Photographs taken from those two lookout shelters indicate that the existing towers that would be removed are visible on the skyline of the spine of South Mountain, but the full array of the 46 towers in the South Mountain Communications Site is visible from those locations. Photo simulations indicate that the removal of two towers and installation of a replacement tower that would extend to an elevation 10 feet higher would not substantially alter the existing views from the lookout shelters. None of the 21 other contributing buildings and structures of the district that are within 0.75 mile of the existing temporary materials stockpile area are visible from the stockpile area.

The Gila River Indian Community and Salt River Pima-Maricopa Indian Community have passed resolutions declaring that they consider the South Mountains to be a sacred place/traditional cultural property because of the prominent role that the mountains have in oral traditions and songs of the Akimel O'odham (Pima) and Pee Posh (Maricopa) tribes. The removal of two monopoles and installation of a replacement tower is not expected to affect the traditional cultural values of the South Mountains. The traditional cultural significance of the South Mountains and the nature of the impacts, however, are defined by the perspectives of traditional Akimel O'odham and Pee Posh.

On October 15, 2009, City Archaeologist Todd Bostwick and other staff presented information at a meeting of the Cultural Resources Working Group of the Four Southern Tribes. Barnaby Lewis, Tribal Historic Preservation Officer of the Gila River Indian Community, confirmed that the South Mountains are a sacred traditional cultural resource for the Four Southern Tribes (Ak-Chin Indian Community, Gila River Indian Community, Salt River Pima-Maricopa Indian Community, and Tohono O'odham Nation). Mr. Lewis indicated that the tribes would object to new communication towers on the mountain, but the proposed replacement tower seemed to be a justifiable project and would have a minor impact on the mountain. Subsequently, the cultural resource report was provided to the Four Southern Tribes as well as the Fort McDowell Yavapai Nation, Hopi Tribe, and Yavapai-Prescott Indian Tribe. None of the tribes objected to the proposed replacement tower, and the Gila River Indian Community sent a February 9, 2010, letter confirming the project's no adverse effect on cultural resources.

The State Historic Preservation officer concurred that the proposed project would not adversely affect any properties listed in or eligible for the National Register. Construction-related activities would have no significant impact on historic and cultural resources.

Operations-Related Impacts – Operation of the South Mountain Tower 1 site would not require any ground disturbing activities and no archaeological resources would be impacted. Cultural resource studies conducted for the South Mountain Tower 1 site identified two historic properties and one traditional cultural property with the area of potential effects for visual impacts and determined that the Proposed Action would have no adverse effect on historic properties.

The State Historic Preservation officer concurred that the proposed project would not adversely affect any properties listed in or eligible for the National Register. Operations-related activities would have no significant impact on historic and cultural resources.

No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented, and the proposed upgrades would not be completed. Therefore, there would be no impact to historic and cultural resources resulting from the No Action Alternative.

Resource 7 – Aesthetic and Visual Resources

Potential impacts on aesthetic and visual resources are likely to be greater in more natural or rural settings than commercial or residential settings, where development is more prevalent. 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.

Proposed Action

Construction-Related Impacts – Because the Proposed Action involves renovations to an existing site, the impacts to aesthetic and visual resources during construction would be minimal and temporary. Cranes, trucks, and other construction equipment that would be present in the project area would be removed, and activities associated with the removal of the existing monopoles and the installation of the new self-supporting lattice tower would be completed after the 90-day construction period. The short-term impacts on aesthetic and visual resources resulting from construction-related activities would have no significant impact.

Operations-Related Impacts – Although the Proposed Action is within the City of Phoenix South Mountain Park, the project area is within an existing communications site that includes 41 towers and 46 equipment buildings, and the proposed would not significantly alter the current appearance of the communications site. The project area is within the National Register-eligible South Mountain Park and Preservations Historic District. A cultural resource study conducted for the South Mountain Tower 1 project determined that the Proposed Action would have no adverse effect on cultural resources within the area of potential effects for visual impacts and the State Historic Preservation Office concurred with that determination. The operation of the South Mountain Tower 1 site would have no significant impact on aesthetic and visual resources.

No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented, and the proposed upgrades would not be completed. Therefore, there would be no impact to aesthetic and visual resources resulting from the No Action Alternative.

Resource 8 – Land Use

Impacts to land use can occur when incompatible land uses are placed adjacent to one another. PSIC-funded transmitting and receiving projects would not be compatible with all land use types and should be carefully sited, in accordance with local master plans, planning initiatives, and local zoning restrictions. Transmitting and receiving sites are most compatible with industrial, commercial, or public and quasi-public land uses, such as utilities, because of the basic intended function of these sites and the associated activities by which their operation is characterized. Compatibility with land use planning is derived from the function or purpose of the site; construction activities do not have any substantive bearing on impacts to land use planning. Therefore, only impacts from operations will be discussed in this section (NTIA 2009:4-22).

Proposed Action

The Proposed Action is located within the South Mountain Communications Site on the spine of South Mountain, which currently includes 46 towers (including monopoles, guyed towers, and lattice towers) and 41 equipment buildings. The proposed project would be compatible with current land uses within the communications site and the Proposed Action will have no significant impact on land use.

No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented, and the proposed upgrades would not be completed. Therefore, there would be no impact to land use compatibility resulting from the No Action Alternative.

Resource 9 – Infrastructure

Impacts to infrastructure are typically observed as disruptions in service and utilities, either short- or long-term, resulting from increases in demand that may overwhelm the capacity of the local area to absorb them. Engagement in a planning process to ensure that the system capacity will be able to meet projected increases in demand is the most effective way to avoid impacts to infrastructure, although resources may not always be available to implement upgrades (NTIA 2009:4-23).

Proposed Action

Utilities

Construction-Related Impacts – The South Mountain Tower 1 project, which is located in an unpopulated area, would require additional short-term electric and communication services from available utility networks during construction. However, construction-related impacts to utilities would not cause major disruptions or changes to the existing system. Impacts to utilities would not be significant.

During construction, precautions would be taken to avoid damage to existing utility lines. All potential modifications to utility services would be evaluated. Coordination with potentially affected local and regional utility service providers would occur to avoid unnecessary damage or interruption of service. There would be no significant impact to utility services from construction-related activities.

Operations-Related Impacts – The operation of the South Mountain Tower 1 site is not expected to cause noticeable impacts to local utility services across all category types. Operation of the facility is not expected to lead to major supply shortages or require major changes to the services. There would be no significant impact to utility services from operations-related activities.

Solid Waste

Construction-Related Impacts – Some temporary minor impacts could occur during construction activities, since waste requiring disposal would be generated. Solid waste that could be generated from construction of the facility modification includes building materials, such as concrete and other material from the removed monopoles. When possible, these materials will be recycled. There would be no significant impact to solid waste from construction activities.

Operations-Related Impacts – Normal operation of the South Mountain Tower 1 site would not require solid waste collection and disposal services. The amount of waste generated during normal operations would not cause a significant impact on local or regional solid waste management resources (NTIA 2009:4-25). There would be no significant impact to solid waste from operations-related activities.

Transportation Network

Construction-Related Impacts – Existing roads would be used to access the South Mountain Tower 1 project area. The South Mountain Park road network is used to access recreational trails and scenic overlooks, as well as the South Mountain Telecommunications Site. Due to the low-traffic volume of the road network, the transport of heavy equipment and construction materials during the 90-day construction period would not result in unique transportation network considerations. During the construction period, a short-term increase in traffic could occur as construction materials are hauled to the site and waste materials and excess excavated rock are hauled out. Delays may occur in the vicinity of the tower location, temporary staging area, and material stockpile area. There would be no significant impact to transportation networks from construction-related activities.

Operations-Related Impacts – Because the Proposed Action would occur at an existing communications site, transportation activities associated with day-to-day operation of the facility are not expected to change from the existing conditions, which includes a small number of daily or weekly trips by medium-duty or personal vehicles. There would be no significant impact to transportation networks from operations-related activities.

No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented, and the proposed upgrades would not be completed. Therefore, there would be no impact to infrastructure resulting from the No Action Alternative.

Resource 10 – Socioeconomic Resources

Impacts to socioeconomic resources are assessed in terms of the effects of expenditures on the overall local economy and the impact of in-migration on demographics, employment, the availability of housing, and the ability of a jurisdiction to provide services such as education and public safety. In addition, disproportionate impacts to low-income or minority populations would result in adverse environmental justice impacts (NTIA 2009:4-26).

Proposed Action

Under the Proposed Action, expenditures associated with the implementation of the South Mountain Tower 1 project would represent a small portion of overall statewide spending and economy. Project implementation may result in employment increases, but those increases are not expected to be significant. Therefore the Proposed Action is not expected to impact in-migration, demographics, housing supply, and public services. The South Mountain Tower 1 project is not within a low-income or minority area and no significant impacts to socioeconomic resources is expected.

No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented, and the proposed upgrades would not be completed. Therefore, there would be no impact to infrastructure resulting from the No Action Alternative.

Resource 11 – Human Health and Safety

Impacts to human health and safety can come from a wide range of activities. Workplace and construction site safety can adversely impact health and safety, as well as the generation, handling, storage, use, or disposal of hazardous and toxic materials (NTIA 2009:4-28).

Proposed Action

Construction-Related Impacts – Under the proposed action, there would be a slight increase in workplace safety hazards during the construction phase of the Proposed Action because of the nature of the construction work and the increased intensity of the work at the existing site. Work areas surrounding construction areas would be fenced, and appropriate signs would be posted to further minimize safety risks. In addition, implementation of worker safety rules, derived from OSHA safety and health standards, will establish a uniform set of safety practices and procedures to protect workers. Demolition of older transmitting and receiving sites could result in exposure to polychlorinated biphenyls (PCB) and other hazardous material regulated under the Toxic Substances Control Act (TSCA). If these materials are located on the existing site, they would need to be handled and disposed of in accordance with applicable Federal, State, and local regulations (NTIA 2009:4-28). Construction-related impacts to human health and safety would not be significant.

Operations-Related Impacts – The Proposed Action is not expected to result in significant changes to the manner in which site safety is addressed at the existing site, and current safety protocols will remain in place. In order to minimize health and safety risks, the facility would be fenced and access restricted to authorized personnel. BMPs for the handling, storage, use, and disposal of diesel for the existing backup generator will continue to be implemented. Analysis by the City of Phoenix Information Technology Services concluded that the Proposed Action would not result in human exposure to radio frequency radiation that exceeds the limits specified by FCC regulations (Title 47, CFR, Parts 1.1310 and 2.1093).

The implementation of the Proposed Action would enable public safety agencies to improve interoperable communications resulting in more effective communications during an emergency or crisis situation, which would be a beneficial impact to human health and safety.

No Action Alternative

Under the No Action Alternative, the Proposed Action would not be implemented, and the proposed upgrades would not be completed. Current interoperability gaps would continue, compromising the ability of first responders to react effectively and rapidly to emergency situations. There would be adverse impacts to human health and safety resulting from the No Action Alternative.

SECTION 5 – FINDINGS AND CONCLUSIONS

The Proposed Action would involve the replacement of an existing 225-foot-tall monopole with a new 250-foot-tall four-leg, self-supporting lattice tower. The replacement tower would make another nearby 125-foot-tall monopole that was erected in 2003 obsolete, and it also would be removed. A temporary staging area, about 500 feet south of and down slope of the tower, would be used during construction. About 100 cubic yards of excess excavated rock would be temporarily stockpiled in an existing materials stockpile area about 1.8 miles west of the tower. The area of ground disturbance would be limited to less than one-third acre.

This EA was completed pursuant to the Programmatic EA that NTIA completed for the PSIC grant program, which determined that the preparation of site-specific EAs would be required for transmitting and receiving sites involving new towers 200 or more feet tall (NTIA 2009).

The Proposed Action would not involve any unusual risks or impacts to sensitive resources and would not have a significant impact on any of the eleven resource areas identified by the Programmatic EA. In accordance with 47 CFF Section 1.1307 (a) (1) through (8), a FCC National Environmental Policy Act Checklist also was prepared to determine if any FCC special interest items would be significantly impacted the Proposed Action, and no significant impacts were identified. Therefore, no further environmental analysis is required. The Proposed Action would have a beneficial impact on health and safety by improving public safety interoperable communications in Arizona's Central Region. Alternatively, the No Action Alternative would result in adverse impacts to human health and safety because no improvements to interoperable communications would occur. We recommend that the NTIA issue a finding of no significant impact (FONSI) for the Proposed Action.

SECTION 6 – LIST OF PREPARERS

Name	EA Responsibilities	Education
URS Corporation		
Jennifer Frownfelter	Principal In Charge	MS, Environmental Management MS, Public Policy BS, Environmental, Population, Organismic Biology BS, Environmental Conservation
Kim Bidle	Project Manager	BS, Environmental Resources
William T. Jackson	Task Manager, Technical Oversight and Review	BS, Wildlife and Fisheries Science – Aquatic Ecology/Aquaculture
Robert DeBaca	Biological Assessment, Biological Resources	PhD, Biology MS, Biology BS, Environmental Conservation BS, EPO Biology
Jeffery Johnson	Biological Assessment, Biological Resources	MS, Plant Biology BS, Plant Biology
Robert Evans	Socioeconomic Resources	MCP, Community Planning MLP, Landscape Architecture BSEV, Environmental Design
Gene Rogge	Historic and Cultural Resources	PhD, Anthropology MA, Anthropology BA, Anthropology
Kirsten Erickson Johnson	Aesthetic and Visual Resources, Air Quality, Geology and Soils, Historic and Cultural Resources, Human Health and Safety, Infrastructure, Land Use, Noise, Water Resources	MA, Public History and U.S. History BA, History
Cassandra Albush	Historic and Cultural Resources	MA (in progress), Anthropology BA, Anthropology
Brian Colson	Geographic Information System/Graphics	BS, Geography
Ron Savage	Geographic Information System/Graphics	BS, Sociology/Anthropology
Meg Quarrie	Technical Editor and Word Processor	BA, Liberal Arts (English)

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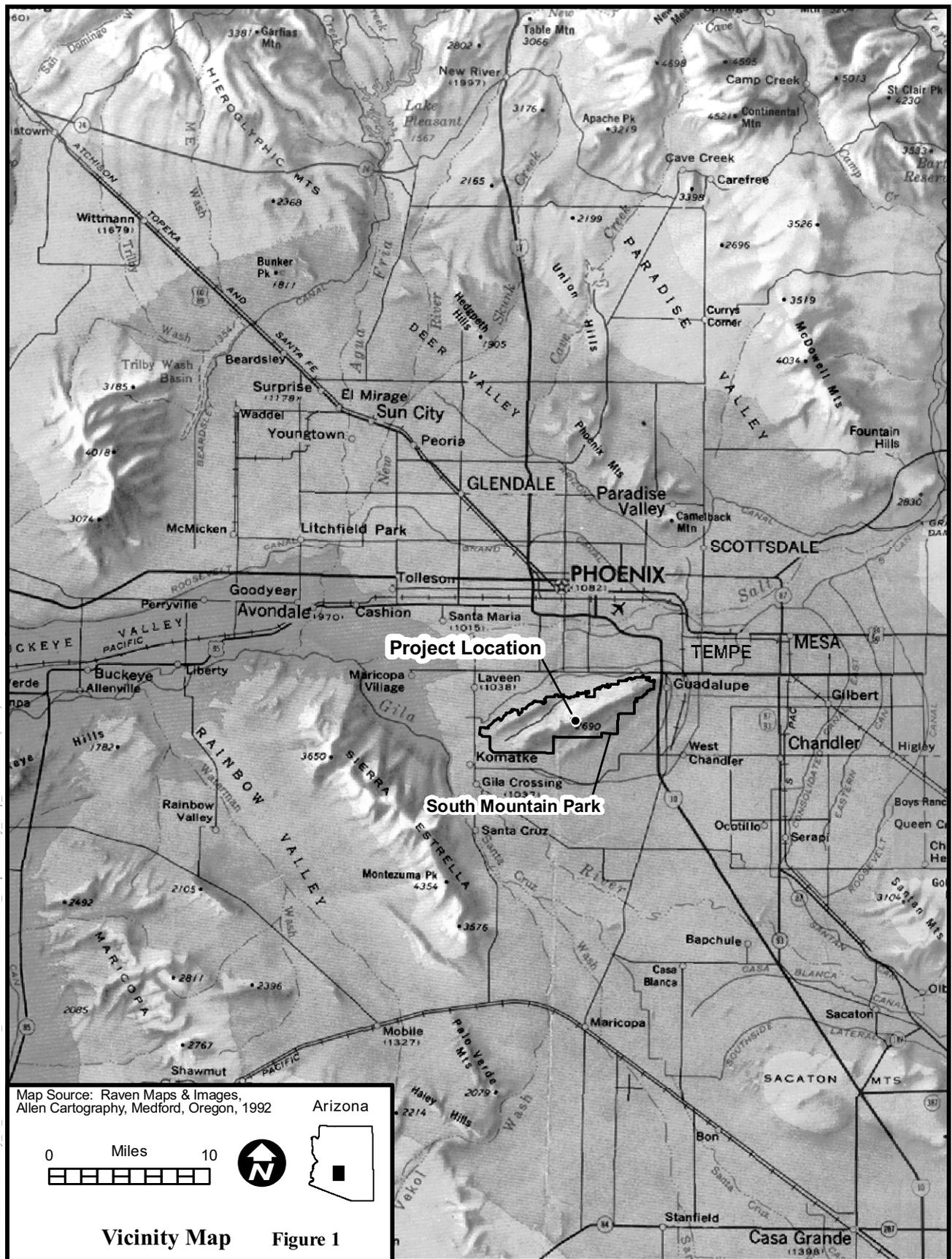
_____. 2009. Threatened and Endangered Species for Maricopa County, Arizona. Available at <http://www.USFWS.gov/southwest/es/arizona/Documents/CountyLists/Maricopa.pdf>, accessed July 7, 2009.

_____. 2007. *Consultations with Federal Agencies Section 7 of the Endangered Species Act*. February 2007.

Wenker, Chris T., 2000. *Archaeological Evaluation of 22 800 MHz Radio Sites in Maricopa County, Arizona*. Cultural Resource Report 00-84. SWCA Environmental Consultants, Phoenix, Arizona.

APPENDIX A

FIGURES



PHOENIX PLANNING CITY OF PHOENIX\23445683_S\MapTower\GIS\mxd\EA_Maps\Vicinity_Map_S\MtnP.mxd (RDS)

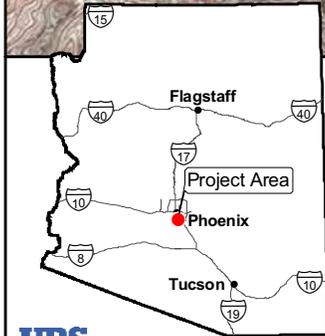
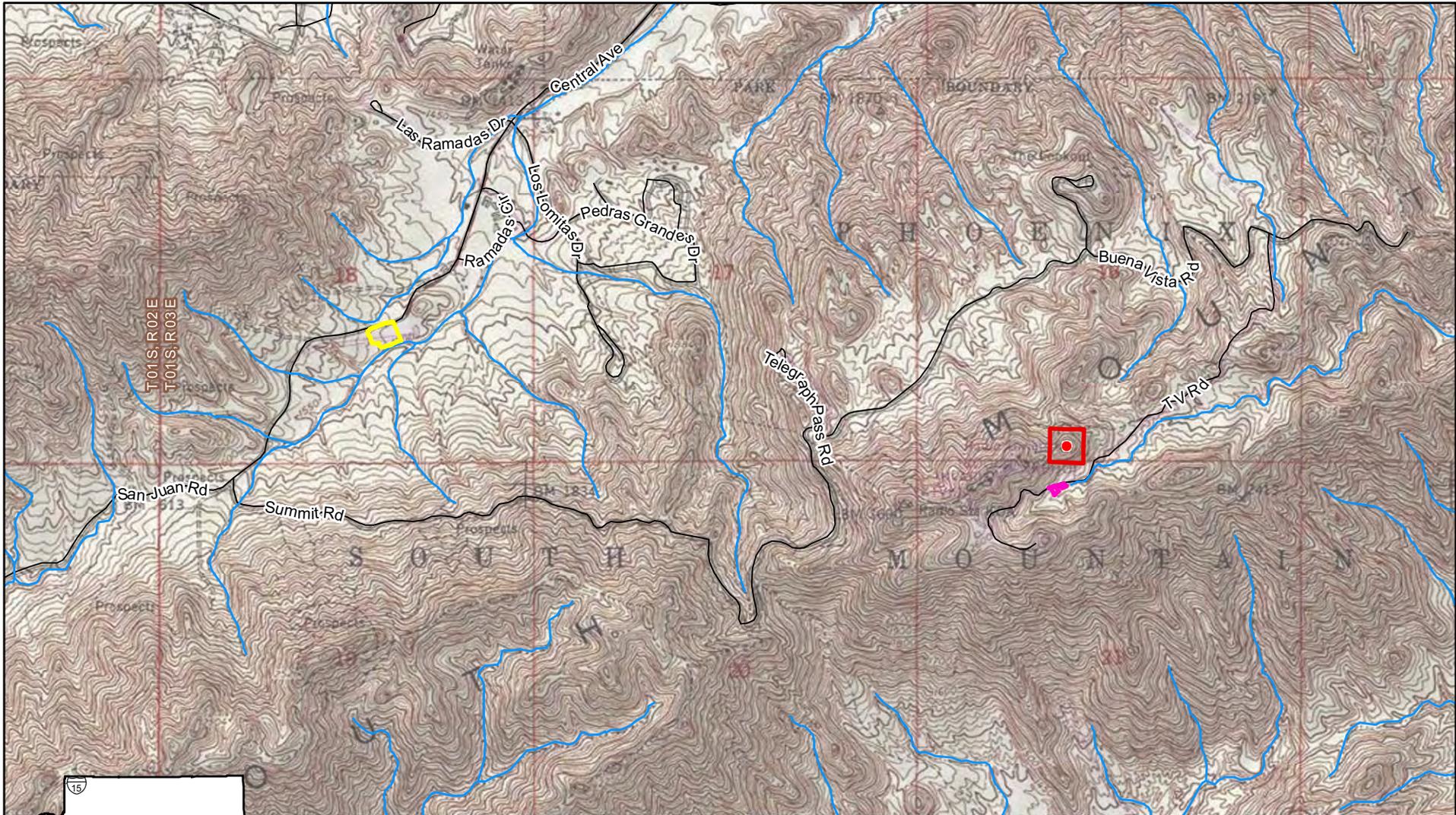
Map Source: Raven Maps & Images,
 Allen Cartography, Medford, Oregon, 1992

Arizona

0 Miles 10

Vicinity Map **Figure 1**



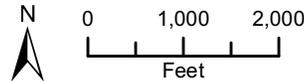
LEGEND

- South Mountain Tower Site
- ▭ 5-Acre Study Area of South Mountain Tower Site
- ▭ Construction Staging Area
- ▭ South Mountain Tower Excavated Material Stockpile Site
- Road
- Wash

**Figure 2
Topographic Map**

South Mountain Tower Site -
Record of Environmental Review
City of Phoenix Project: IT20200008-8

Source:
Base Map: ALRIS 1997 - 2008, ADOT 2009
Project Features: URS 2009
Wash: USGS NHD 2008
Base topographic data:
Copyright: © 2009 National Geographic Society





LEGEND

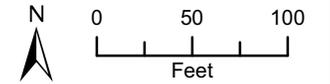
- South Mountain Tower Site
- ▭ 5-Acre Study Area of South Mountain Tower Site
- ▭ Section Boundary (within T. 01 S., R. 03 E.)



Figure 3a
South Mountain Tower Site
Aerial Photograph

South Mountain Tower Site -
Record of Environmental Review
City of Phoenix Project: IT20200008-8

Source:
Base Map: ALRIS 1997 - 2008
Project Features: URS 2009
Imagery: City of Phoenix 2008





LEGEND

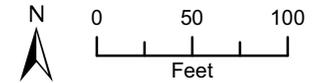
 Construction Staging Area

Map extent is within T. 01 S., R. 03 E., Section 21

Figure 3b
Construction Staging Area
Aerial Photograph

South Mountain Tower Site -
Record of Environmental Review
City of Phoenix Project: IT20200008-8

Source:
Base Map: ALRIS 1997 - 2008
Project Features: URS 2009
Imagery: City of Phoenix 2008





LEGEND

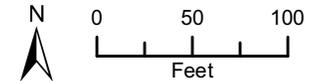
-  South Mountain Tower
-  Excavated Material Stockpile Site

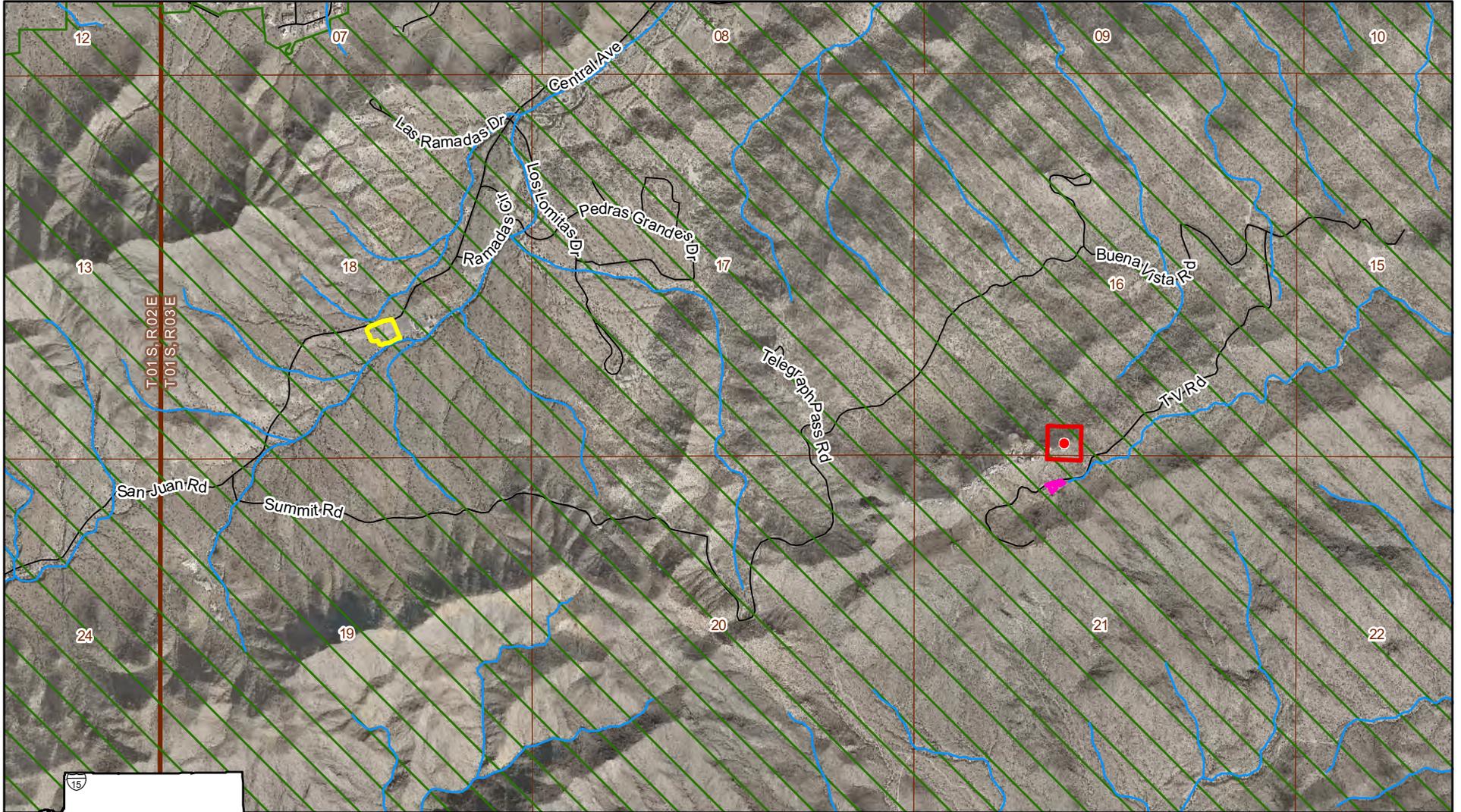
Map extent is within T. 01 S., R. 03 E., Section 18

Figure 3c
Materials Storage Area
Aerial Photograph

*South Mountain Tower Site -
 Record of Environmental Review
 City of Phoenix Project: IT20200008-8*

Source:
 Base Map: ALRIS 1997 - 2008
 Project Features: URS 2009
 Imagery: City of Phoenix 2008





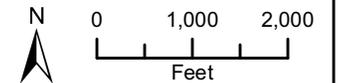
LEGEND

- South Mountain Tower Site
- 5-Acre Study Area of South Mountain Tower Site
- Construction Staging Area
- South Mountain Tower
- Excavated Material Stockpile Site
- Open Space
- ▭ Township and Range Boundary
- ▭ Section Boundary
- Road
- Wash

**Figure 4
Land Use**

South Mountain Tower Site -
Record of Environmental Review
City of Phoenix Project: IT20200008-8

Source:
Base Map: ALRIS 1997 - 2008, ADOT 2009
Project Features: URS 2009
Open Space: Maricopa County 2004
Wash: USGS NHD 2008
Imagery: City of Phoenix 2008





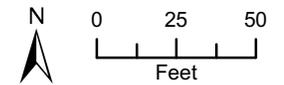
LEGEND

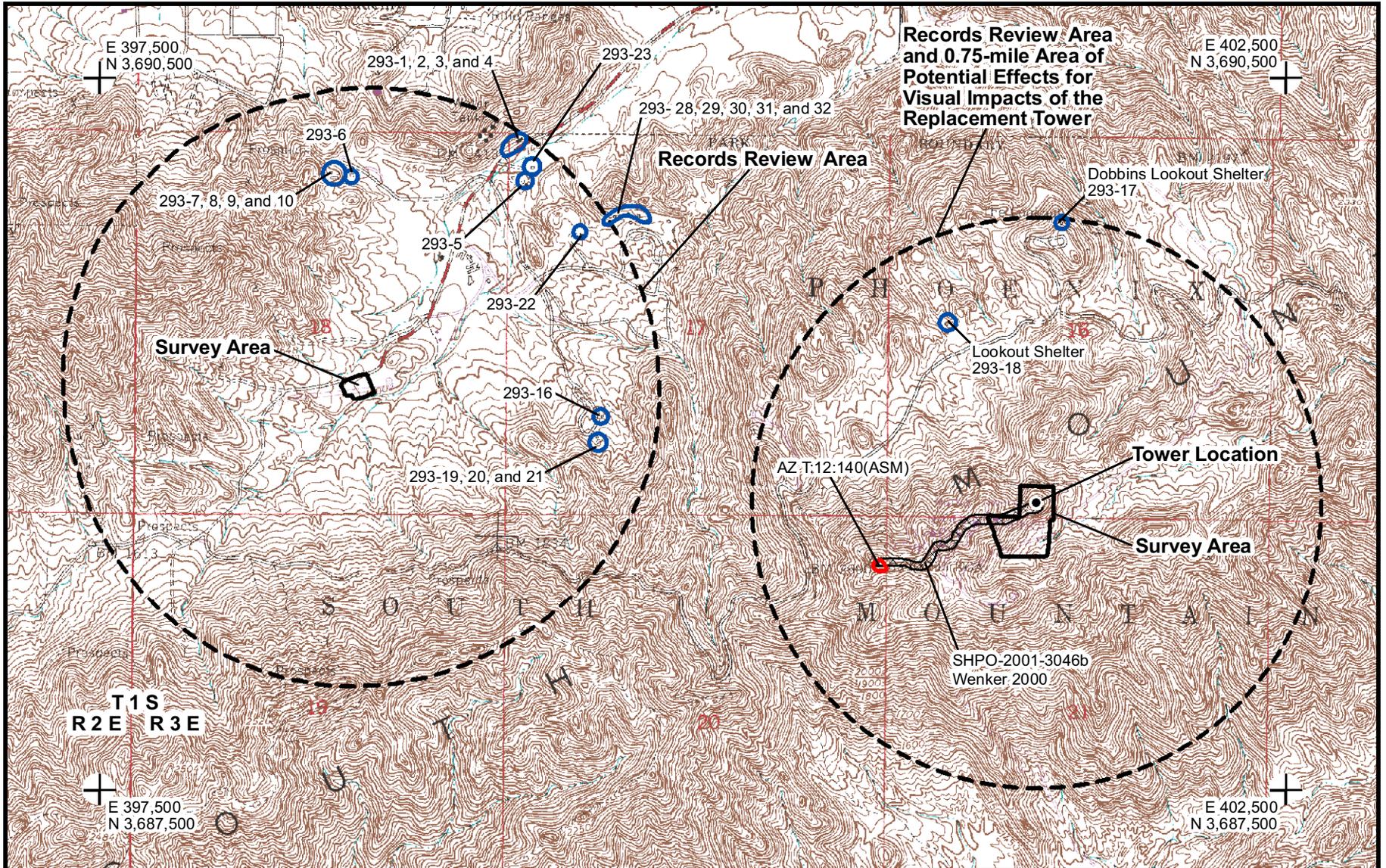
-  Construction Staging Area
-  Hedgehog Cactus
-  Saguaro
-  Palo Verde (Single)
-  Palo Verde (Group of 2)
-  Palo Verde (Group of 5)

Figure 5
Construction Staging Area
Plant Survey

South Mountain Tower Site -
Record of Environmental Review
City of Phoenix Project: IT20200008-8

Source:
Base Map: ALRIS 1997 - 2008
Project Features, Plant Survey: URS 2009
Imagery: City of Phoenix 2008





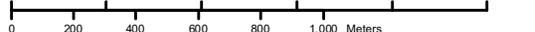
<h3>Historic and Cultural Resources Map</h3>	<ul style="list-style-type: none">  Prior Project  Previously Recorded Archaeological Resource  Historic Structure Location (Numbers correspond to Table 2 in text.) 	<p>Restrict distribution of this map to avoid vandalism, as provided for by Section 304 of the National Historic Preservation Act, Section 9(a) of the Archaeological Resources Protection Act, and Section 39-125 of the Arizona Revised Statutes.</p>	<div data-bbox="1407 1347 1470 1404" style="display: inline-block; vertical-align: middle;">  </div> <p data-bbox="1480 1347 1942 1404">Map Source: Lone Butte, Arizona, USGS 7.5' Quadrangle 1952/73&82 (33112c1/T-12 SE) NAD 1927, UTM Zone 12 Gila and Salt River Baseline and Meridian</p> <div data-bbox="1407 1412 1942 1469" style="display: flex; align-items: center;"> <div style="flex: 1;">  <p style="font-size: small; margin-top: 5px;">0 1,000 2,000 3,000 4,000 5,000 Feet</p> </div> <div style="flex: 1;">  <p style="font-size: small; margin-top: 5px;">0 200 400 600 800 1,000 Meters</p> </div> </div>
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Figure 6

APPENDIX B

SITE PLANS

CITY OF PHOENIX

ENGINEERING & ARCHITECTURAL SERVICES DEPARTMENT

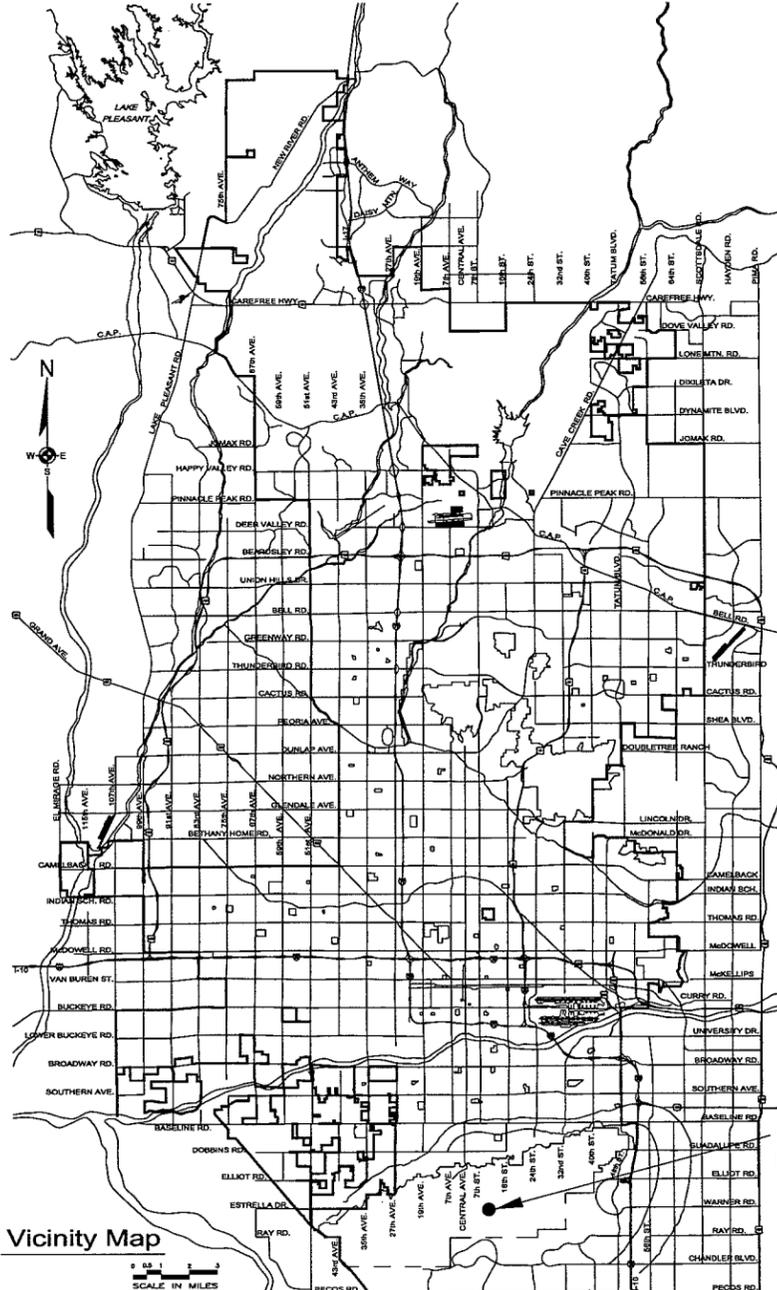
PROJECT NAME SOUTH MOUNTAIN COMMUNICATIONS SITE

PROJECT ADDRESS SOUTH MOUNTAIN PARK

PROJECT NUMBER: IT20200008



2009



MAYOR
PHIL GORDON

CITY COUNCIL

DISTRICT NO. 1	THELDA WILLIAMS	DISTRICT NO. 5	CLAUDE MATTOX
DISTRICT NO. 2	PEGGY NEELY	DISTRICT NO. 6	SAL DICICCO
DISTRICT NO. 3	BILL GATES	DISTRICT NO. 7	MICHAEL NOWAKOWSKI
DISTRICT NO. 4	TOM SIMPLOT	DISTRICT NO. 8	MICHAEL JOHNSON

CITY MANAGER FRANK FAIRBANKS
ACTING CITY ENGINEER Tauny G. Woo, PE

APPROVALS

ENGINEERING SUPERVISOR DATE

POLICE DEPARTMENT DATE

KIVA #
SDEV #

Note:
Per City of Phoenix Ordinance G-4396, these plans are for official use only and may not be shared with others except as required to fulfill the obligations of your contract with the City of Phoenix.

KIVA # PROJECT NAME, PROJECT NUMBER SHEET #



ROBERT POLCAR ARCHITECTS, INC.
7107 EAST THOMAS ROAD
SCOTTSDALE, AZ 85251
P (480) 675-9760
F (480) 675-9761

CITY OF PHOENIX
INFORMATION TECHNOLOGY - WIRELESS
SOUTH MOUNTAIN PARK COMMUNICATIONS SITE
PHOENIX, ARIZONA

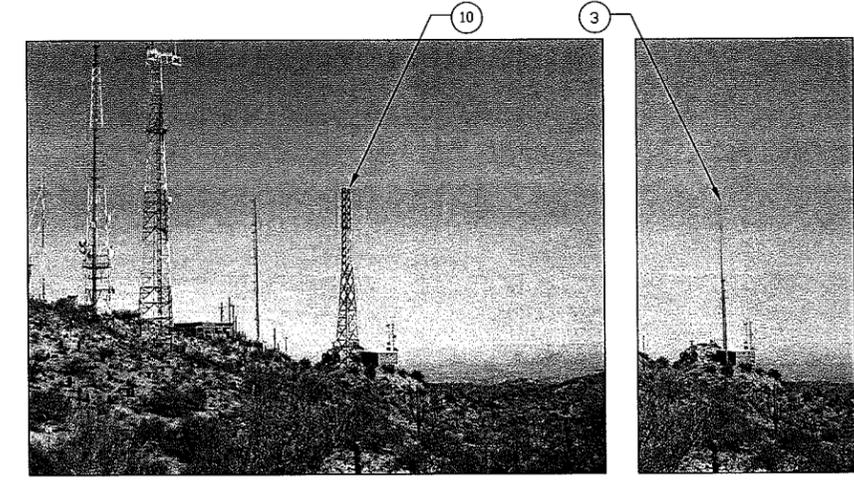


EXPIRES 12/31/09

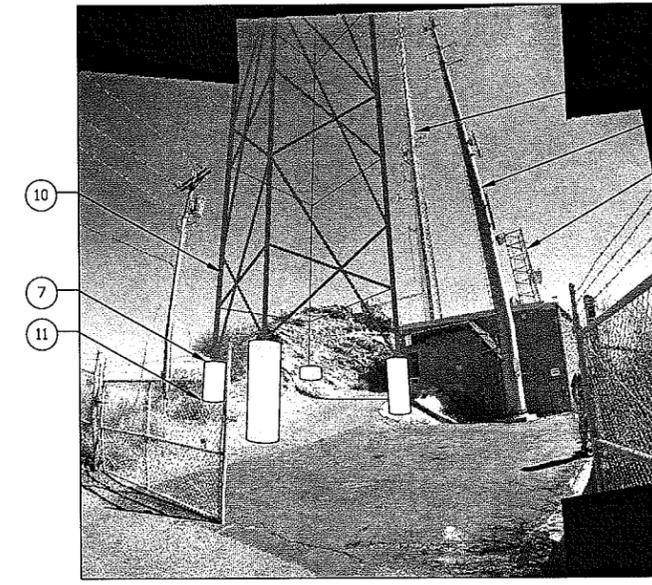
REVISIONS:
1 05/29/09

DRAWN BY: chp
CHECKED BY: bp
FILE: cophx/sntn/a1
ISSUED: 06/30/09

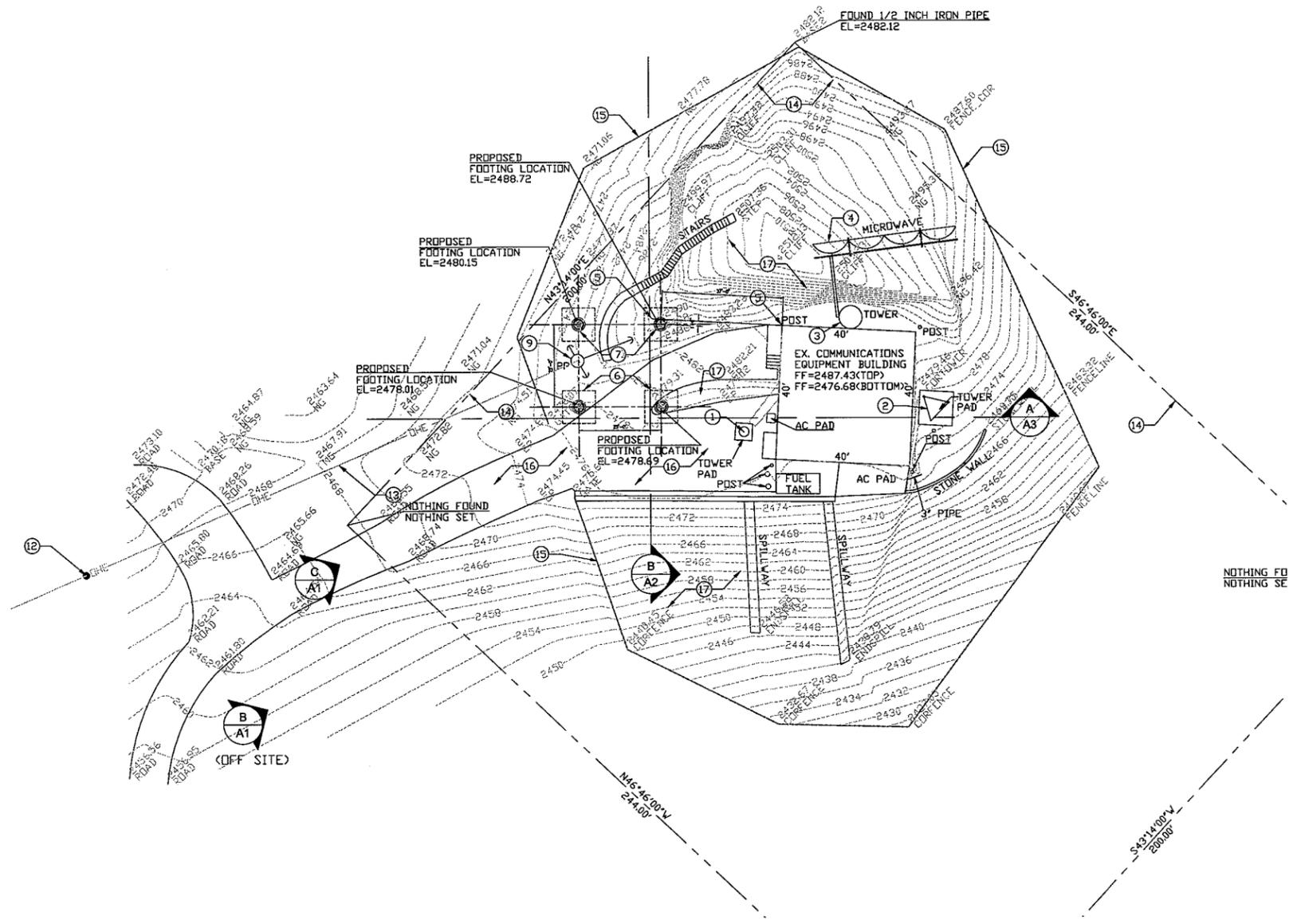
SITE PLAN
A1



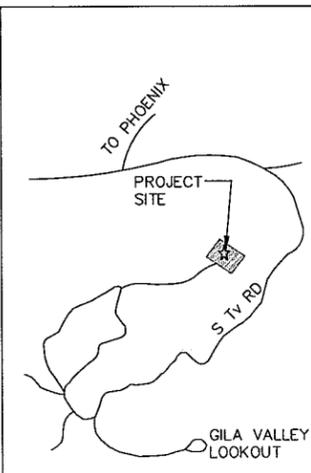
B LOOKING EAST PROPOSED EXISTING
SCALE: 1"=10'



C PROPOSED PIERS
SCALE: 1"=10'



A SITE PLAN
SCALE: 1"=20'



VICINITY MAP
SOUTH MOUNTAIN PARK

SITE PLAN KEYNOTES

- EXISTING 115' MONOPOLE TOWER, TO BE REMOVED AT COMPLETION OF NEW TOWER INSTALLATION.
- EXISTING 55' TALL LATTICE TYPE TOWER REMAINS.
- EXISTING 225' MONOPOLE TOWER, TO BE REMOVED AT COMPLETION OF NEW TOWER INSTALLATION WITH THE EXCEPTION OF APPROXIMATELY THE LOWER 40'. LOWER PORTION OF TOWER AND MICROWAVE SUPPORTS SHALL REMAIN.
- EXISTING MICROWAVE DISHES AND SUPPORTING STRUCTURES ARE TO REMAIN.
- START POINT FOR LOCATION LAYOUT OF NEW TOWER FOUNDATION.
- NEW CONCRETE PAD FOOTINGS, SEE STRUCTURAL DETAILS FOR SIZE AND REINFORCING, TYPICAL FOR 4.
- NEW CONCRETE PIERS, SEE STRUCTURAL DETAILS FOR SIZE AND REINFORCING, TYPICAL FOR 4.
- ALIGN OFF NORTH FACE OF EXISTING BUILDING.
- EXISTING UTILITY POLE TO BE RELOCATED AND NEW SERVICE INSTALLED TO EXISTING SERVICE ENTRANCE BY OTHERS.
- NEW 250' TALL 4 LEG TOWER. RED AND WHITE ALTERNATING COLOR SECTIONS.
- AFTER INSTALLATION OF NEW TOWER AND FOUNDATIONS THE EXISTING PAVEMENT AND/OR SITE MATERIAL SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND PROFILE UNLESS NOTED.
- PROPOSED LOCATION FOR RELOCATED UTILITY POLE, BY OTHERS.
- NEW SERVICE FROM RELOCATED POLE TO BE BURIED, BY OTHERS.
- EXISTING PROPERTY LINE.
- EXISTING 6' HIGH CHAIN LINK FENCE.
- EXISTING PAVED DRIVEWAY AND PARKING AREA.
- EXISTING NATIVE MATERIAL.

PROJECT DATA:

PROJECT DESCRIPTION:
INSTALLATION OF NEW COMMUNICATIONS TOWER AT SOUTH MOUNTAIN

PROJECT LOCATION:
ADJACENT TO SOUTH TV ROAD SOUTH MOUNTAIN PARK, PHOENIX, AZ

PROPERTY OWNER:
CITY OF PHOENIX
KEITH CODY, INFORMATION TECHNOLOGY
(602) 534-7394

APPLICANT:
CITY OF PHOENIX
JUAN GIRON, EAS
(602) 262-4956

ARCHITECT:
ROBERT POLCAR ARCHITECTS, INC.
BOB POLCAR
(480) 675-9760

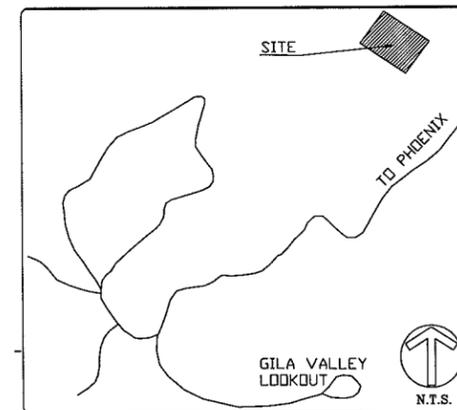
DRAWING LIST:

- A1 ARCHITECTURAL SITE PLAN
- A2 TOWER AND ANTENNA INFORMATION
- A3 SECTIONS AND ELEVATIONS
- S1 STRUCTURAL FOUNDATION AND DETAILS
- C1 CIVIL SURVEY

SITE DATA	
PROJECT NUMBER	29028
SITE PLAN NUMBER	A1
QUARTER SECTION NUMBER	N/A
ZONING DISTRICT	RE35 HP OVERLAY
ZONING CASE NUMBER AND STIPULATIONS (if available)	
USE PERMIT CASE NUMBER AND STIPULATIONS (as applicable)	
SPECIAL PERMIT CASE NUMBER AND STIPULATIONS (as applicable)	

APPROVAL STAMP

TOPOGRAPHIC SURVEY OF SOUTH MOUNTAIN RADIO FACILITY.



VICINITY MAP

OWNER:

OWNER:
CITY OF PHOENIX

NOTE:

SURVEY WAS PERFORMED WITHOUT BENEFIT OF TITLE REPORT OR LEGAL DESCRIPTION. DOCUMENTATION USED WAS PROVIDED BY THE CITY OF PHOENIX IN THE FOLLOWING FORMS.
 1. MAP DATED FEB 7, 1978 (SOUTH MOUNTAIN RADIO TOWER SECURITY FENCE.)
 2. MAP DATED 1989 (RADIO AND TELEVISION TOWER SITES.)

THIS SURVEY IS TO BE USED FOR TOPOGRAPHY ONLY. THIS IS NOT A BOUNDARY SURVEY. IT IS BASED ON THE BEST INFORMATION AVAILABLE AND IS FOR REFERENCE ONLY.

BENCHMARK:

U.S.C. & GS TRIANGULATION MARKER
 BRONZE PLATE SET IN CONCRETE
 UNDER CAIRN OF ROCK
 LAT. N33°20'00.82"
 LONG. W112°03'45.248"
 ELEVATION BEING 2860.00'

BASIS OF BEARINGS:

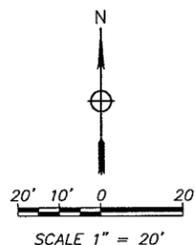
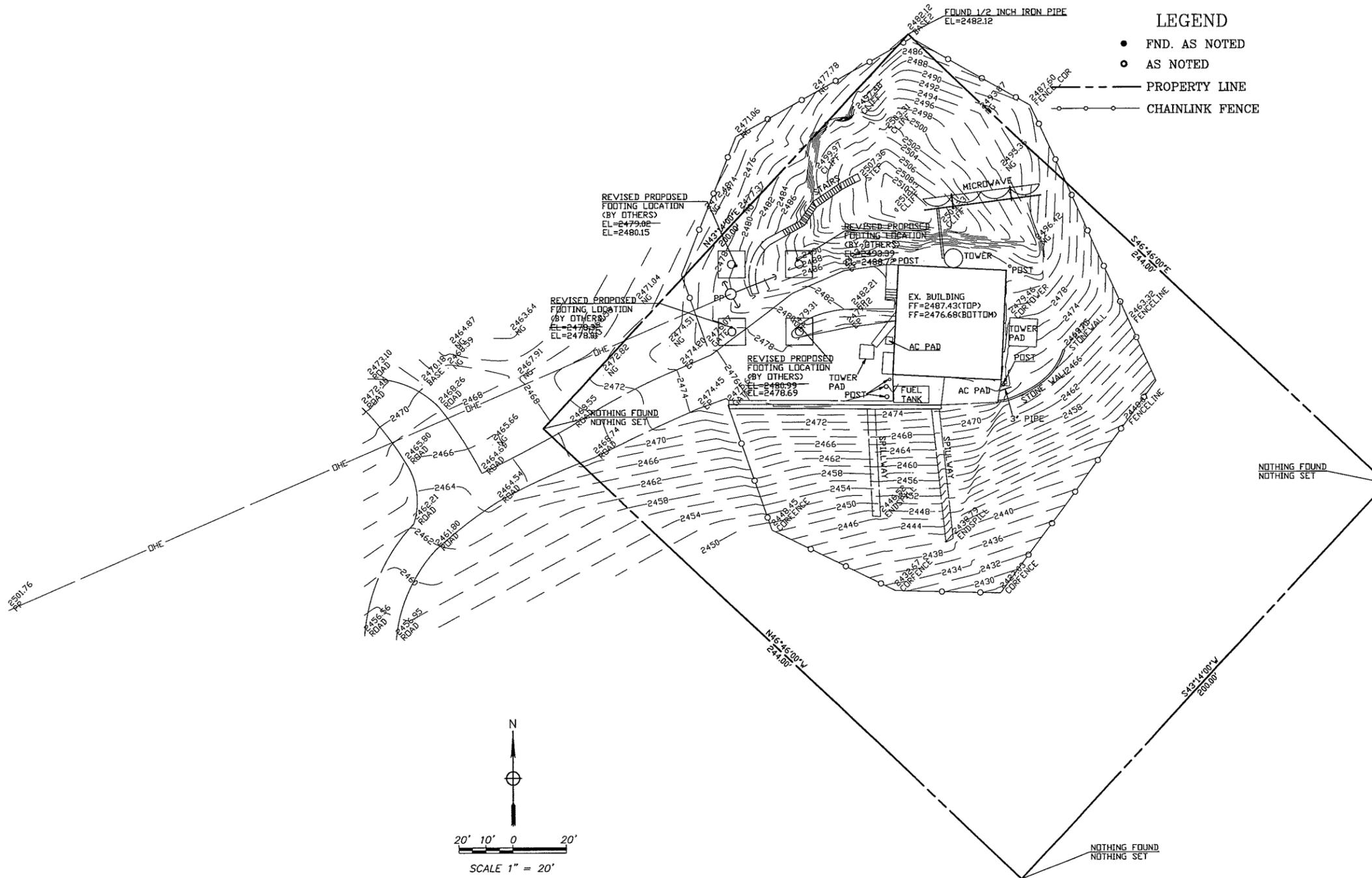
BEARINGS SHOWN ON THIS MAP ARE BASED ON A BEARING OF N43°14'00"E, ALONG THE NORTH LINE OF PROPERTY AS SHOWN ON THE MAP OF RADIO AND TELEVISION TOWER SITES, TOP OF SOUTH MOUNTAIN, SOUTH MOUNTAIN PARK, CITY OF PHOENIX, ARIZONA, PARKS AND RECREATION DEPARTMENT (UNRECORDED).

SURVEYORS CERTIFICATION:

THIS IS TO CERTIFY THAT THIS MAP AND THE SURVEY ON WHICH IT IS BASED ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND WAS SURVEYED AND DRAWN UNDER MY DIRECTION IN THE MONTH OF APRIL, 2009.



- LEGEND**
- FND. AS NOTED
 - AS NOTED
 - PROPERTY LINE
 - CHAINLINK FENCE



PROJECT MANAGER: T. D. Johnson PE ENGR. of RECORD: T. D. Johnson PE REC. NO.: 1792 SERV. of RECORD: T. D. Johnson RLS REC. NO.: 16557
GENERAL ENGINEERING SUPPORT, LLC
ACCOUNT: 090392 DATE: 4-27-2009 DESIGNED BY: TM CHECKED BY: TDJ APPROVED BY: TDJ
COVER
TOPOGRAPHIC SURVEY OF SOUTH MOUNTAIN RADIO FACILITY
DRAWING
SHEET 1 OF 1

APPENDIX C
PHOTOGRAPHS AND SIMULATIONS



Photograph 1. View from the Approximate Location for the Proposed Replacement Tower to the North



Photograph 2. View from the Approximate Location for the Proposed Replacement Tower to the Northeast



Photograph 3. View from the Approximate Location for the Proposed Replacement Tower to the East



Photograph 4. View from the Approximate Location for the Proposed Replacement Tower to the Southeast



Photograph 5. View from the Approximate Location for the Proposed Replacement Tower to the South



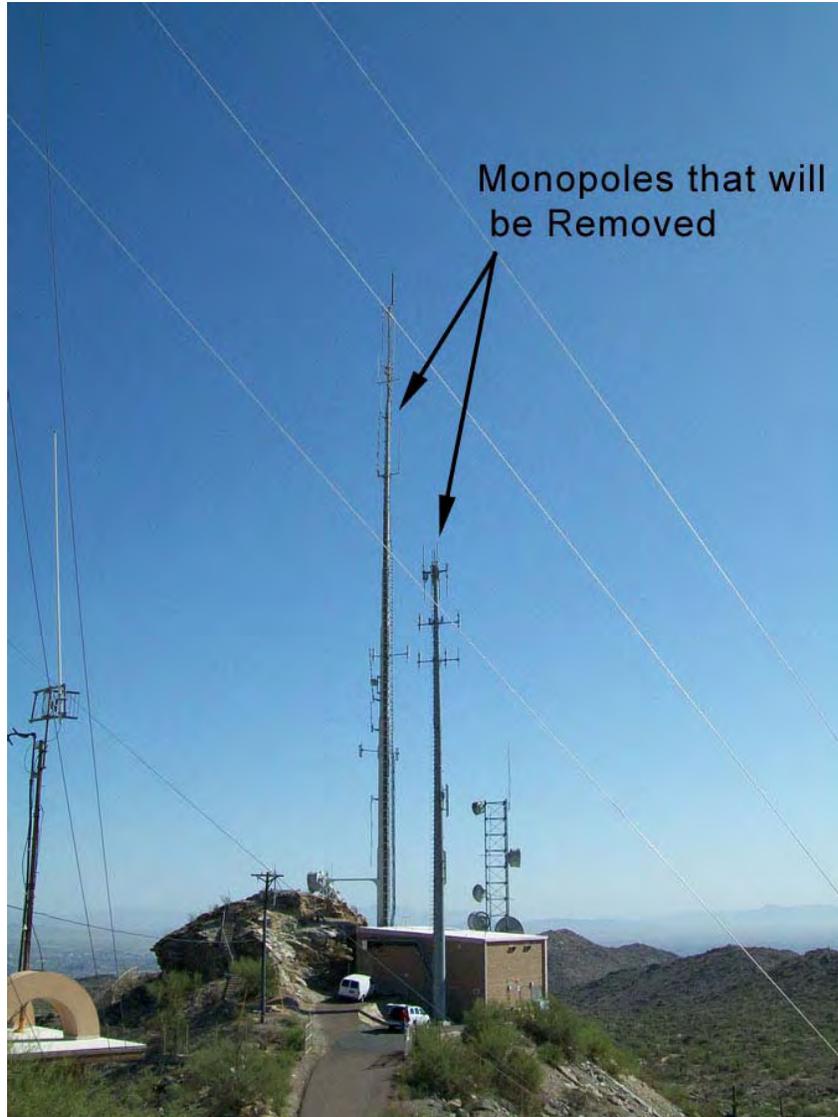
Photograph 6. View from the Approximate Location for the Proposed Replacement Tower to the Southwest



Photograph 7. View from the Approximate Location for the Proposed Replacement Tower to the West



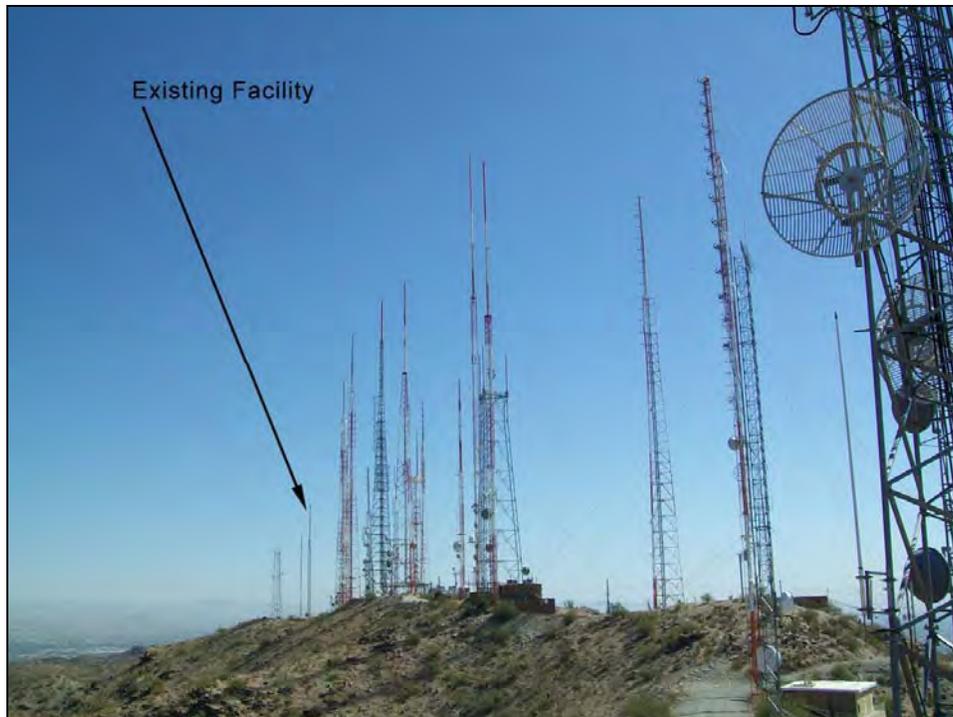
Photograph 8. View from the Approximate Location for the Proposed Replacement Tower to the Northwest



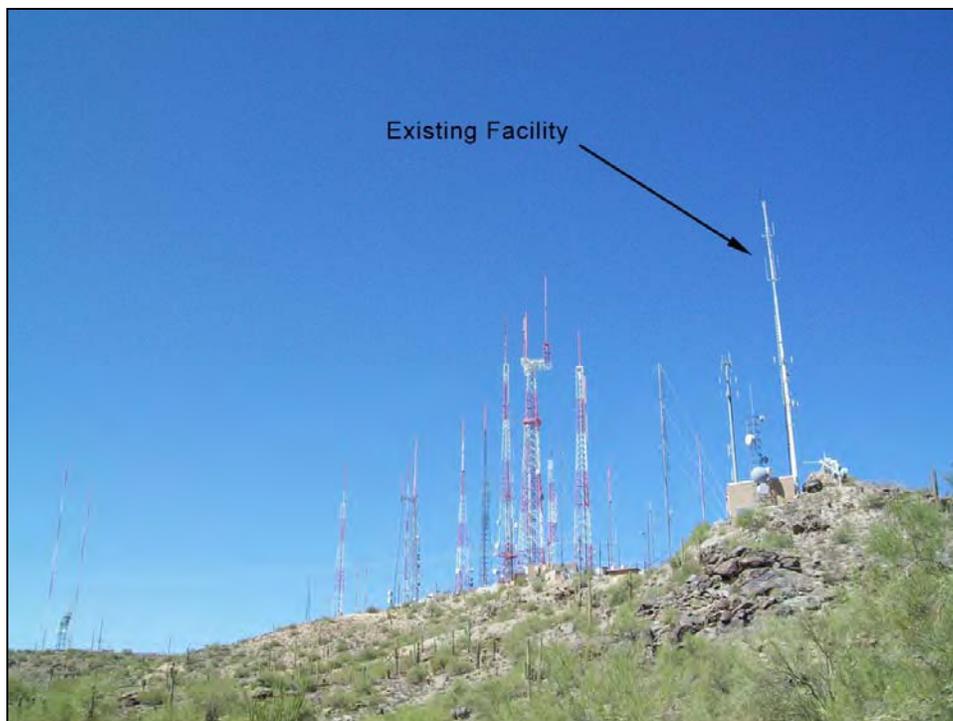
Photograph 9. Existing Facility (view east-northeast)



Photograph 10. 1946 Radio Transmitter Facility [AZ T:12:140(ASM)] (view west)



Photograph 11. View from 1946 Radio Transmitter Facility toward the Proposed Replacement Tower Location (view northeast)



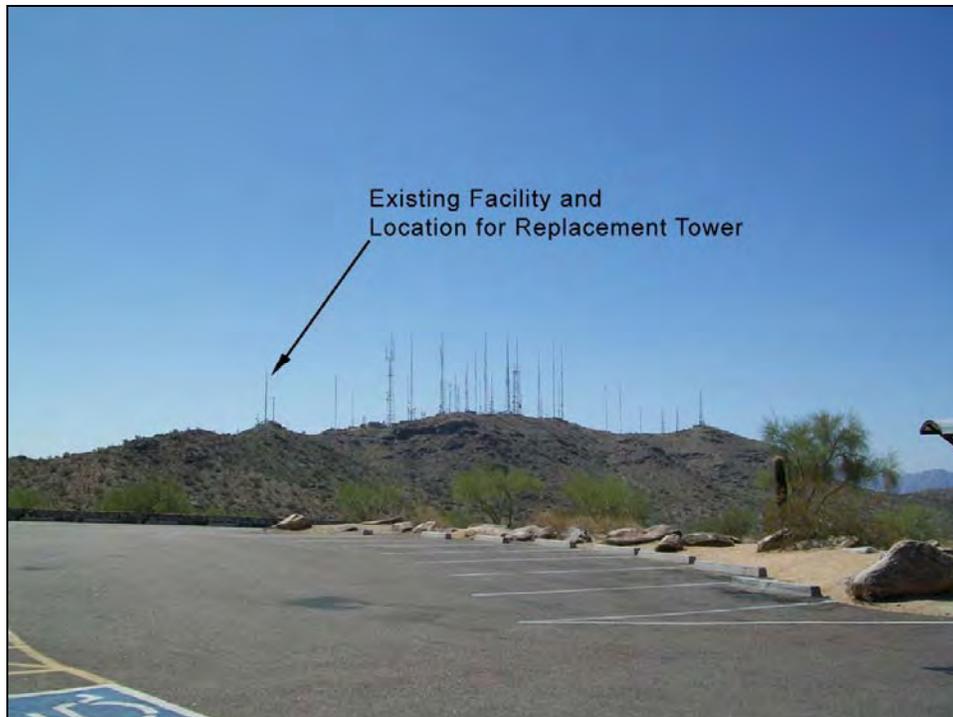
Photograph 12. View of South Mountain Communications Facility from the Proposed Staging Area (view west)



Photograph 13. View of South Mountain Communications Facility from TV Road (view west)



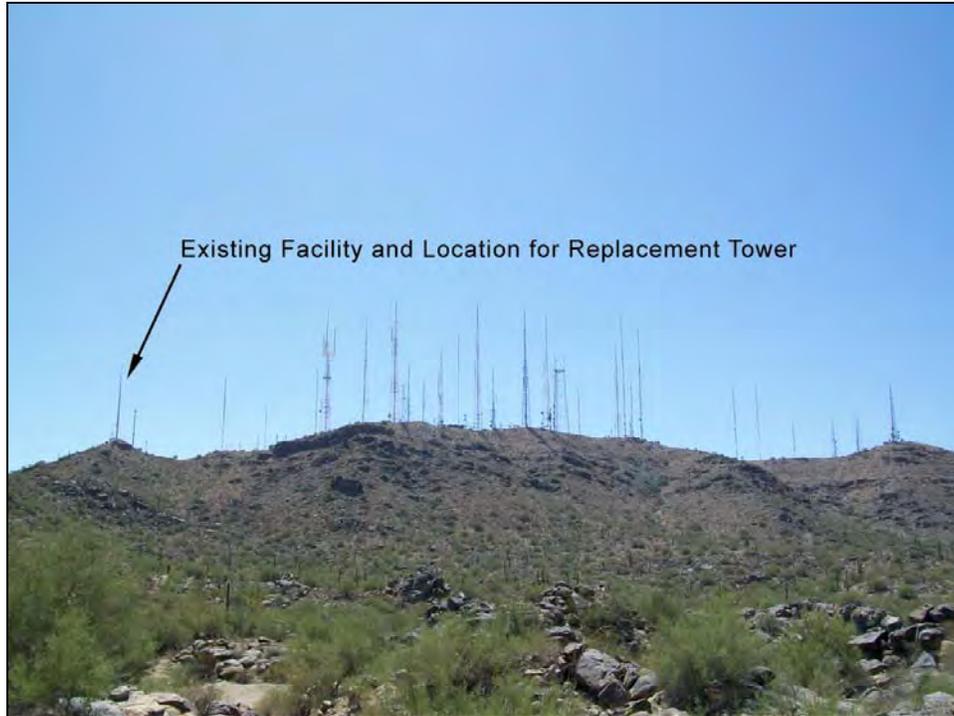
Photograph 14. Dobbins Lookout Shelter (view north-northwest)



Photograph 15. View from Dobbins Lookout Shelter toward the South Mountain Communications Site (view southwest)



Photograph 16. Unnamed Lookout Shelter (view north)



Photograph 17. View from Unnamed Lookout Shelter toward the South Mountain Communications Site (view south)



Photograph 18. Temporary Stockpile Location (view southwest)



Photograph 19. View from the Temporary Stockpile Location to the North



Photograph 20. View from the Temporary Stockpile Location to the Northeast



Photograph 21. View from the Temporary Stockpile Location to the East



Photograph 22. View from the Temporary Stockpile Location to the Southeast



Photograph 22. View from the Temporary Stockpile Location to the South



Photograph 23. View from the Temporary Stockpile Location to the Southwest



Photograph 24. View from the Temporary Stockpile Location to the West



Photograph 25. View from the Temporary Stockpile Location to the Northwest



Photograph 26. Quarter-Midget Racetrack near the Temporary Stockpile Location (view east-southeast)



Photo Simulation 1. Existing Towers (view to the west)



Photo Simulation 2. Rendering of Replacement Tower (by Robert Polcar Architects)



Photo Simulation 3. Existing Towers
(view to the south from Dobbins Lookout Shelter 0.75-mile to the north)



Photo Simulation 4. Rendering of Replacement Tower (by Robert Polcar Architects)

APPENDIX D
BIOLOGICAL COORDINATION



United States Department of the Interior

U.S. Fish and Wildlife Service
Arizona Ecological Services Field Office

2321 West Royal Palm Road, Suite 103

Phoenix, Arizona 85021-4951

Telephone: (602) 242-0210 Fax: (602) 242-2513



In Reply Refer to:

AESO/SE
22410-2010-I-0178

January 19, 2010

Mr. Juan Giron
Project Manager
Engineering and Architectural Services Department
200 West Washington Street, 7th Floor
Phoenix, Arizona 85003

RE: Proposed Improvements to an Existing Communications Facility in South Mountain City Park, Located in the City of Phoenix, Maricopa County, Arizona

Dear Mr. Giron:

Thank you for your December 17, 2009, request for informal consultation with the U.S. Fish and Wildlife Service pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), as amended (Act). As an agent of the Federal Communications Commission (FCC), you are requesting our review of proposed improvements to a telecommunications facility located in South Mountain City Park in the City of Phoenix, Maricopa County, Arizona. We received your request for informal consultation on December 21, 2009. You requested our concurrence that the proposed action will not affect any federally-listed or proposed species, or designated critical habitat. We concur with your determination and provide our rationale below.

Projects that involve a "no effect" determination for federally listed species and critical habitat pursuant to section 7 of the Act typically do not require coordination or consultation with our office. However, you state in your letter that the City of Phoenix is applying for Federal assistance from the Public Safety Inoperable Communications Grant Program, which requires that the City meet Federal environmental compliance requirements including the National Environmental Policy Act and therefore, requires that you receive a response from our office prior to the processing of your Grant application. We appreciate your efforts to ensure compliance with the Act, and we willingly respond to your request.

PROPOSED ACTION

A complete description of the proposed action is found in your November 2009 Biological Review. The City of Phoenix plans to develop a transmitting and receiving site tower by installing a 10-channel 700 megahertz digital communications system for radio and wireless conference interoperability. The proposed improvements includes the replacement of a 225-foot monopole telecommunications tower with a 250-foot four leg telecommunications tower to accommodate the new antenna loading. The existing equipment shelter will require slight modifications to allow the installation of a new antenna entry port. Ground disturbance activities include: 1) a trench approximately 3 feet deep and 100 feet long to move the existing electrical service to the new tower, and 2) excavation for the new tower leg (i.e., concrete piers) foundations. A construction staging area will be located on previously disturbed land less than 500 feet from the tower facility, and an excavated materials deposit site will be located along an existing paved road and parking lot on previously disturbed ground. The area of potential effects for visual impacts was defined as extending 0.75 miles from the project.

DETERMINATION OF EFFECTS

We concur with your determination that the proposed action will not affect any federally-listed species or their habitats. We base our determination on the following:

- The proposed improvements will occur in an existing telecommunications facility. Thus, the replacement 250-foot telecommunications tower will be located amongst existing telecommunication towers that vary in height below or above 250-feet. This area does not support habitat that may be occupied by endangered, threatened, or proposed species or designated critical habitat, either within the footprint of the construction or adjacent to the site.
- Neither suitable or potentially suitable habitat for endangered, threatened, or proposed species nor designated or proposed critical habitat occurs in the construction staging area and excavated materials deposit site.

We understand that the Sonoran Desert tortoise occurs in South Mountain. Although the species was not found in the project area, the project area contains vegetation that may be suitable for use by the species. We appreciate your efforts to avoid rock outcrops that may be used for burrows and incorporating the Arizona Game and Fish Department's *Guidelines for Handling Sonoran Desert Tortioses Encountered on Development Projects* into your proposed project. We recommend coordination with the Arizona Game and Fish Department.

Thank you for your continued coordination. No further section 7 consultation is required for this project at this time. Should project plans change, or if information on the distribution or abundance of listed species or critical habitat becomes available, this determination may need to be reconsidered. In all future correspondence on this project, please refer to consultation number 22410-2010-I-0178.

Should you require further assistance or if you have any questions, please contact Kathy Robertson (x232) or Debra Bills (x239).

Sincerely,


for Steven L. Spangle
Field Supervisor

cc: Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ

W:\Kathy Robertson\Section 7\No effect\City of Phoenix South Mountain cell tower.doc:cgg



THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT

5000 W. CAREFREE HIGHWAY
PHOENIX, AZ 85086-5000
(602) 942-3000 • WWW.AZGFD.GOV

GOVERNOR
JANICE K. BREWER
COMMISSIONERS
CHAIRMAN, BOB HERNBRODE, TUCSON
JENNIFER L. MARTIN, PHOENIX
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JACK F. HUSTED, SPRINGVILLE
DIRECTOR
LARRY D. VOYLES
DEPUTY DIRECTORS
GARY R. HOVATTER
ROBERT D. BROSCHEID



January 21, 2010

Mr. Juan Giron, P.E., LEED AP Civil Engineer III
Project Manager
Engineering and Architectural Services Department
200 W. Washington St. 7th Floor
Phoenix, AZ 85003

Re: Project Evaluation Request for Wildlife and Plant Species – Facility Upgrade at the South Mountain Communication Site

Dear Mr. Giron:

The Arizona Game and Fish Department (Department) has received your letter, dated December 17, 2009, regarding improvements to an existing communications facility within the South Mountain communications site. The Department understands the City of Phoenix (City) plans to develop a transmitting and receiving site tower by installing a 10 channel 700MHz digital communications system for radio and wireless conference interoperability on 2,400 square feet of an existing tower facility. The Department also understands the existing 250-foot tower will be replaced with a new 250-foot, four leg tower.

Your letter requested a list of potential species occurring in the project area. Upon review of URS Corporation's "Biological Review for South Mountain Communications Tower Upgrade, November 2009" prepared for the City, it was noted that this project was previously entered into the Arizona On-Line Environmental Review Tool (Tool) on July 7, 2009. Typically, Tool receipts expire after 6 months due to continually updated information. I have re-evaluated the project area and have determined that the special status species indicated on the Tool receipt are still valid and considered current. I have enclosed a copy of the Tool receipt for your records. Also enclosed are the Department's "Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects" should this species be present during project activities. For additional information on Arizona's wildlife resources please refer to Arizona's State Wildlife Action Plan at http://www.azgfd.gov/w_c/cwcs.shtml.

Because the proposed project activities will consist of replacing an existing facility and be located in previously disturbed areas, the Department does not anticipate that any significant adverse impacts to wildlife resources will occur as a result of this project. The enclosed Tool receipt provides general recommendations and additional contact information. As long as these recommendations are followed, the Department does not have any concerns at this time. The

Mr. Juan Giron
January 21, 2010
Pg. 2

Department appreciates the opportunity to review this project and feel free to contact me at 623-236-7486 if you have any questions regarding this letter.

Sincerely,

A handwritten signature in black ink that reads "Reuben Terán". The signature is written in a cursive style with a large, stylized initial 'R'.

Reuben Terán
Project Evaluation Specialist

Enclosure

cc: Project Evaluation Program Supervisor
Habitat Program Manager, Region VI

AGFD #M09-12291344

GUIDELINES FOR HANDLING SONORAN DESERT TORTOISES
ENCOUNTERED ON DEVELOPMENT PROJECTS

Arizona Game and Fish Department

Revised October 23, 2007

The Arizona Game and Fish Department (Department) has developed the following guidelines to reduce potential impacts to desert tortoises, and to promote the continued existence of tortoises throughout the state. These guidelines apply to short-term and/or small-scale projects, depending on the number of affected tortoises and specific type of project.

The Sonoran population of desert tortoises occurs south and east of the Colorado River. Tortoises encountered in the open should be moved out of harm's way to adjacent appropriate habitat. If an occupied burrow is determined to be in jeopardy of destruction, the tortoise should be relocated to the nearest appropriate alternate burrow or other appropriate shelter, as determined by a qualified biologist. Tortoises should be moved less than 48 hours in advance of the habitat disturbance so they do not return to the area in the interim. Tortoises should be moved quickly, kept in an upright position parallel to the ground at all times, and placed in the shade. Separate disposable gloves should be worn for each tortoise handled to avoid potential transfer of disease between tortoises. Tortoises must not be moved if the ambient air temperature exceeds 40° Celsius (105° Fahrenheit) unless an alternate burrow is available or the tortoise is in imminent danger.

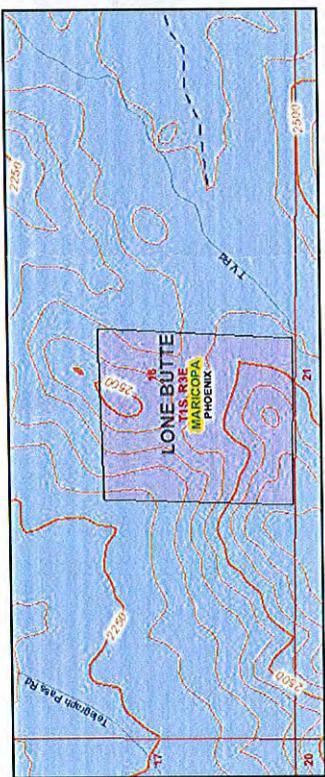
A tortoise may be moved up to one-half mile, but no further than necessary from its original location. If a release site, or alternate burrow, is unavailable within this distance, and ambient air temperature exceeds 40° Celsius (105° Fahrenheit), the Department should be contacted to place the tortoise into a Department-regulated desert tortoise adoption program. Tortoises salvaged from projects which result in substantial permanent habitat loss (e.g. housing and highway projects), or those requiring removal during long-term (longer than one week) construction projects, will also be placed in desert tortoise adoption programs. *Managers of projects likely to affect desert tortoises should obtain a scientific collecting permit from the Department to facilitate temporary possession of tortoises.* Likewise, if large numbers of tortoises (>5) are expected to be displaced by a project, the project manager should contact the Department for guidance and/or assistance.

Please keep in mind the following points:

- . These guidelines do not apply to the Mojave population of desert tortoises (north and west of the Colorado River). Mojave desert tortoises are specifically protected under the Endangered Species Act, as administered by the U.S. Fish and Wildlife Service.
- . These guidelines are subject to revision at the discretion of the Department. We recommend that the Department be contacted during the planning stages of any project that may affect desert tortoises.
- . Take, possession, or harassment of wild desert tortoises is prohibited by state law. Unless specifically authorized by the Department, or as noted above, project personnel should avoid disturbing any tortoise.

Arizona's On-line Environmental Review Tool
 Search ID: 20090707009265
 Project Name: South Mountain communications tower upgrade
 Date: 7/7/2009 12:26:30 PM

Project Location



Project Name: South Mountain communications tower upgrade
Submitted By: Jeff Johnson
On behalf of: OTHER
Project Search ID: 20090707009265
Date: 7/7/2009 12:26:24 PM
Project Category: Communication, Cell or communication tower including access roads, Modification to existing tower
Project Coordinates (UTM Zone 12-NAD 83): 401377.190, 3689047.196 meter
Project Area: 30.174 acres
Project Perimeter: 1402.825 meter
County: MARICOPA
USGS 7.5 Minute Quadrangle ID: 1345
Quadrangle Name: LONE BUTTE
Project locality is not anticipated to change

Location Accuracy Disclaimer

Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Receipt is solely responsible for the project location and thus the correctness of the Project Review Receipt content.

The Department appreciates the opportunity to provide in-depth comments and project review when additional information or environmental documentation becomes available.

Special Status Species Occurrences/Critical Habitat/Tribal Lands within 2 miles of Project Vicinity:

Name	Common Name	ESA	USFS	BLM	State
Gopherus agassizii (Sonoran Population)	Sonoran Desert Tortoise	SC		S	WSC
Sauromalus ater (Arizona Population)	Arizona Chuckwalla	SC		S	

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Please review the entire receipt for project type recommendations and/or species or location information and retain a copy for future reference. If any of the information you provided did not accurately reflect this project, or if project plans change, another review should be conducted, as this determination may not be valid.

Arizona's On-line Environmental Review Tool:

1. This On-line Environmental Review Tool inquiry has generated recommendations regarding the potential impacts of your project on Special Status Species (SSS) and other wildlife of Arizona. SSS include all U.S. Fish and Wildlife Service federally listed, U.S. Bureau of Land Management sensitive, U.S. Forest Service sensitive, and Arizona Game and Fish Department (Department) recognized species of concern.

2. These recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation). These recommendations are preliminary in scope, designed to provide early considerations for all species of wildlife, pertinent to the project type you entered.

3. This receipt, generated by the automated On-line Environmental Review Tool does not constitute an official project review by Department biologists and planners. Further coordination may be necessary as appropriate under the National Environmental Policy Act (NEPA) and/or the Endangered Species Act (ESA).

The U.S. Fish and Wildlife Service (USFWS) has regulatory authority over all federally listed species under the ESA. Contact USFWS Ecological Services Offices: <http://arizonaes.fws.gov/>.

Phoenix Main Office
2321 W. Royal Palm Road, Suite 103
Phoenix, AZ 85021
Phone 602-242-0210
Fax 602-242-2513

Tucson Sub-Office
201 North Bonita, Suite 141
Tucson, AZ 85745
Phone 520-670-6144
Fax 520-670-6154

Flagstaff Sub-Office
323 N. Leroux Street, Suite 101
Flagstaff, AZ 86001
Phone 928-226-0614
Fax 928-226-1099

Disclaimer:

1. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area.
2. The Department's Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there.
3. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. HDMS data contains information about species occurrences that have actually been reported to the Department.

Arizona Game and Fish Department Mission

To conserve, enhance, and restore Arizona's diverse wildlife resources and habitats through aggressive protection and

Arizona's On-line Environmental Review Tool
Search ID: 200907009265
Project Name: South Mountain communications tower upgrade
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management programs, and to provide wildlife resources and safe watercraft and off-highway vehicle recreation for the enjoyment, appreciation, and use by present and future generations.

documented within the vicinity of your project area (refer to the species list on page 1 of the receipt). Please review the Tortoise Handling Guidelines found on the Environmental Review Home Page.

<http://www.azgfd.gov/hgis/guidelines.azpx>

Project Category: Communication, Cell or communication tower including access roads, Modification to existing tower

Project Type Recommendations:

Based on the project type entered; coordination with U.S. Fish and Wildlife Service (Migratory Bird Treaty Act) may be required (<http://arizonaes.fws.gov/>)

Consider designs and tower modifications that reduce or eliminate impacts to migratory birds. Please refer to the U.S. Fish and Wildlife Service's page on cellular towers in Arizona <http://www.fws.gov/arizonaes/CellTower.htm>. On this page there are guidelines for tower siting, construction, operation, and decommissioning. Also see the Service's Interim Guidelines for Recommendations on Communications Tower Siting, Construction, Operation, and Decommissioning, <http://www.fws.gov/habitatconservation/communicationtowers.htm>.

Project Location and/or Species recommendations:

HDMS records indicate that Sonoran desert tortoise have been

Recommendations Disclaimer:

1. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project.
2. These recommendations are proposed actions or guidelines to be considered during **preliminary project development**.
3. Additional site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. The Department is interested in the conservation of all fish and wildlife resources, including those Special Status Species listed on this receipt, and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
6. **Further coordination requires the submittal of this initialed and signed Environmental Review Receipt with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map).**
7. Upon receiving information by AZGFD, please allow 30 days for

Arizona's On-line Environmental Review Tool
Search ID: 20090707009265
Project Name: South Mountain communications tower upgrade
Date: 7/7/2009 12:26:30 PM

completion of project reviews. Mail requests to:

Project Evaluation Program, Habitat Branch
Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086-5000
Phone Number: (623) 236-7600
Fax Number: (623) 236-7366

Terms of Use

By using this site, you acknowledge that you have read and understand the terms of use. Department staff may revise these terms periodically. If you continue to use our website after we post changes to these terms, it will mean that you accept such changes. If at any time you do not wish to accept the Terms, you may choose not to use the website.

1. This Environmental Review and project planning website was developed and intended for the purpose of screening projects for potential impacts on resources of special concern. By indicating your agreement to the terms of use for this website, you warrant that you will not use this website for any other purpose.
2. Unauthorized attempts to upload information or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.
3. The Department reserves the right at any time, without notice, to enhance, modify, alter, or suspend the website and to terminate or restrict your access to the website.
4. This Environmental Review is based on the project study area that was entered. The review must be redone if the project study area, location, or the type of project changes. If additional information becomes available, this review may need to be reconsidered.
5. A signed and initialed copy of the Environmental Review Receipt indicates that the entire receipt has been read by the signer of the

Environmental Review Receipt.

Security:

The Environmental Review and project planning web application operates on a complex State computer system. This system is monitored to ensure proper operation, to verify the functioning of applicable security features, and for other like purposes. Anyone using this system expressly consents to such monitoring and is advised that if such monitoring reveals possible evidence of criminal activity, system personnel may provide the evidence of such monitoring to law enforcement officials. Unauthorized attempts to upload or change information; to defeat or circumvent security measures; or to utilize this system for other than its intended purposes are prohibited.

This website maintains a record of each environmental review search result as well as all contact information. This information is maintained for internal tracking purposes. Information collected in this application will not be shared outside of the purposes of the Department.

If the Environmental Review Receipt and supporting material are not mailed to the Department or other appropriate agencies within six (6) months of the Project Review Receipt date, the receipt is considered to be null and void, and a new review must be initiated.

Print this Environmental Review Receipt using your Internet browser's print function and keep it for your records. Signature of this receipt indicates the signer has read and understands the information provided.

Signature: _____

Arizona's On-line Environmental Review Tool

Search ID: 20090707009265

Project Name: South Mountain communications tower upgrade

Date: 7/7/2009 12:26:30 PM

Date: _____

Contact Name: _____

Proposed Date of Implementation: _____

Address: _____

Please provide point of contact information regarding this Environmental Review.

City, State, Zip: _____

Application or organization responsible for project implementation

Agency/organization: _____

Phone: _____

E-mail: _____

Contact Name: _____

Address: _____

City, State, Zip: _____

Phone: _____

E-mail: _____

Person Conducting Search (if not applicant)

Agency/organization: _____

APPENDIX E

HISTORIC AND CULTURAL RESOURCES (SECTION 106) COORDINATION



SHPO-2010-0256 (76813)

City of Phoenix
HISTORIC PRESERVATION OFFICE

RECEIVED

FEB 12 2010
JMB 2/11/10
ARIZONA STATE PARKS/S.H.P.

February 12, 2010

Jo Anne Medley, Compliance Specialist/Archaeologist
State Historic Preservation Office
Arizona State Parks
1300 W. Washington Street
Phoenix, Arizona 85007

Subject: Section 106 Review, South Mountain Communications Tower, Phoenix, Arizona

Dear Jo Anne:

The purpose of this letter is to initiate the Section 106 process in accordance with the National Historic Preservation Act of 1966 (as amended). On behalf of the Federal Communications Commission (FCC), the city is requesting your concurrence with the determination that the proposed expansion of the above-referenced communications facility in Phoenix, Arizona, will result in a determination of "no adverse effect" under the Section 106 process.

The city is seeking financial assistance for the project, through the Arizona Department of Homeland Security, from the Public Safety Interoperable Communications Grant Program. That grant program is administered by the National Telecommunications and Information Administration, an agency of the Department of Commerce. The project also requires a Radio Service Authorization from the FCC and the City is complying with FCC procedures for compliance with the National Environmental Policy Act and Section 106 of the National Historic Preservation Act. [A Program Comment published by the Advisory Council on Historic Preservation in the Federal Register (Vol. 74, No. 223, Page 60280) on November 20, 2009, stipulates that the National Telecommunications and Information Administration does not have to conduct a separate Section 106 consultation before issuing a grant for the project.] The City retained URS Corporation to conduct studies to support compliance with the FCC procedures, and one of those was a cultural resource study. The Cultural Resources Survey Report and an FCC Form 620 report are enclosed for your review.

To address objectives of the Department of Homeland Security, the city of Phoenix (City) plans to upgrade a transmitting and receiving facility within the South Mountain Communications Site by installing a 10-channel, 700-megahertz digital communications system for radio and wireless conference interoperability. The communications site is on land owned by the city in the South Mountain Park. The project location is shown on Figure 1 and in the Cultural Resources Survey Report and on the 11 X 17" construction drawings included in the Form 620 Report.

The antennas for the current radio system are on an existing 225-foot-tall monopole that is structurally unsound, and failure of the monopole would disrupt critical communications between police, firefighters, and other emergency response operations. The City plans to remove the existing monopole and replace it with a new 250-foot-tall four-leg, self-supporting lattice tower; however the lower 40 feet of the monopole will remain. The new galvanized steel lattice tower will be installed west and about 15 feet downhill of the existing monopole. The top of the replacement tower will be about 10 feet higher than the current monopole. An 8-foot-tall whip antenna extends above the top of the existing monopole and will be installed on the replacement tower as well, but no beacon light will be necessary to meet Federal

Aviation Administration standards. The replacement tower will be either striped red and white, or painted grey. Antennas on another nearby 125-foot-tall monopole would be consolidated within the new system, making that monopole obsolete, and it will also be removed.

The four legs of the replacement tower will be anchored in concrete foundations about 30 feet deep. The existing equipment shelter at the base of the replacement tower will be modified slightly by installation of a new antenna entry port in one wall. One pole of an electrical line that provides power to the facility will be relocated to provide room for the replacement tower. Shifting of the location of the pole and service line will require excavating a conduit trench about 3 feet deep and 100 feet long, mostly within the road used to access the facility. A temporary construction staging area about 50 feet wide and 100 feet long, located in a partially cleared area adjacent to TV Road about 500 feet south of and down slope of the tower, will be used for off loading and storing materials and equipment. About 100 cubic yards of excess excavated rock will be hauled to and temporarily stockpiled in an existing materials stockpile area next to the quarter-midget race track in South Mountain Park, about 1.8 miles west of the tower.

The cultural resource study defined the area of potential effects for direct construction impacts as the areas of potential ground disturbance and any property that would be physically altered by the project. Those areas cover about 0.9 acre (at the tower facility, temporary construction staging area, and temporary materials stockpile area). The intensive cultural resource survey covered those areas and surrounding buffers accumulating to 16 acres. The survey did not identify any archaeological or historical features or artifacts.

The area of potential effects for visual impacts was defined as extending 0.75 mile around the replacement tower, which is appropriate for towers that are 200 to 400 feet tall, as stipulated by the FCC Nationwide Programmatic Agreement, executed in compliance with Section 106 of the National Historic Preservation Act. A records review documented remnants of an abandoned historical radio transmitter facility [AZ T:12:140(ASM)] recorded within the area of potential effects for visual impacts. The records review also documented that the planned project is within the South Mountain Park and Preserves Historic District, which is listed in the Phoenix Historic Property Register and is proposed to be nominated to the National Register of Historic Places. Two historical lookout shelters that are contributing buildings of the district are within the area of potential effects for visual impacts.

The cultural resource report also documents that the Gila River Indian Community and Salt River Pima-Maricopa Indian Community have passed tribal resolutions stating that they consider South Mountain to be a sacred place/traditional cultural property because of its prominent role in the oral traditions and songs of the Akimel O'odham and Pee Posh. For the purposes of the proposed project, the historic district and South Mountain were considered eligible for the National Register of Historic Places under Criterion A (association with significant historic events) and the equipment shelter designated AZ T:12:140(ASM) was considered eligible under Criterion D (potential to yield important information), as recommended when it was originally recorded.

There are 46 towers and 41 equipment buildings within the South Mountain Communications Site, spread along approximately 0.5 mile of the spine of South Mountain. The tallest tower is 416 feet tall, and 12 towers are taller than the proposed 250-foot-tall replacement tower. Because of the undulating topography of the spine of South Mountain, the tower foundations are at various heights; 19 of the existing towers would be above the absolute height of the proposed replacement tower. Appendix B of the enclosed survey report has two photographs that show the existing facility from a nearby location northeast of the facility and from the historic Dobbins Lookout Shelter about 0.75 mile north of the tower location, as well

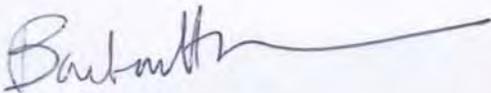
Jo Anne Medley
February 12, 2010
Page 3

as photo simulations of the planned replacement tower from those two locations. The simulations indicate that the removal of two towers and installation of a slightly taller replacement tower would result in only minor changes to existing views of the 46 towers in the South Mountain Communications Site.

On 15 October 2009, City Archaeologist Todd Bostwick and other staff presented information at a meeting of the Cultural Resources Working Group of the Four Southern Tribes. Barnaby Lewis, Tribal Historic Preservation Officer of the Gila River Indian Community, confirmed that the South Mountains are a sacred traditional cultural resource for the Four Southern Tribes (Ak-Chin Indian Community, Gila River Indian Community, Salt River Pima-Maricopa Indian Community, and Tohono O'odham Nation). Mr. Lewis indicated that the tribes would object to new communication towers on the mountain, but the proposed replacement tower seemed to be a justifiable project and would have a minor impact on the mountain. Subsequently, the cultural resource report was provided to the Four Southern Tribes as well as the Fort McDowell Yavapai Nation, Hopi Tribe, and Yavapai-Prescott Indian Tribe. None of the tribes objected to the proposed replacement tower, and the Gila River Indian Community sent a letter on February 9, 2010, agreeing that the project will have no adverse effect on cultural resources. (Documentation of the tribal consultations is included in the attached Form 620 report.)

The City has completed a records check, conducted a field survey, assessed ground disturbance and visual impacts, consulted with American Indian tribes, and prepared a Form 620 report in accordance with the 2004 FCC Nationwide Programmatic Agreement. On behalf of the FCC, we request your concurrence with the project's area of potential effects, the project's identification efforts and determinations of eligibility, and a determination of "no adverse effect." Todd Bostwick, the city Archaeologist has been involved with this project; Mr. Bostwick has reviewed and approved the survey report, and concurs with the findings. We have enclosed a concurrence line for your convenience. If you have questions or comments, you can contact me at 602-262-7468 or Barbara.Stocklin@phoenix.gov, or contact Gene Rogge at URS Corporation at 602-861-7414 or gene_rogge@urscorp.com. Thank you for your cooperation.

Sincerely,



Barbara Stocklin
City Historic Preservation Officer

Enclosures: Cultural Resource Report and FCC Form 620 Report

cc: Juan Giron, Project Manager, Engineering and Architectural Services Department, city of Phoenix
Todd Bostwick, City Archaeologist, city of Phoenix
Gene Rogge, URS Corporation

William Collins
SHPO Concurrence

Feb 24, 2010
Date



GILA RIVER INDIAN COMMUNITY

POST OFFICE BOX 2140, SACATON, AZ 85147

TRIBAL HISTORIC PRESERVATION OFFICE

(520) 562-7150

(520) 562-7152

Fax: (520) 562-4008

February 9, 2010

Juan Giron, P.E., LEED AP Civil Engineer III
Engineering and Architectural Department
City of Phoenix
200 West Washington Street, 7th Floor
Phoenix, Arizona 85003

RE: South Mountain Communications Tower, Environmental Review.

Dear Mr. Giron,

In response to your letter dated October 20, 2009 in which you advised the following; The City of Phoenix (the City) plans to upgrade a transmitting and receiving facility within the existing South Mountain Communications Site by installing a 10-Channel, 700-megahertz digital communications system for radio and wireless conference interoperability. The communications site is on land owned by the City in the South Mountain Park, Maricopa County, Arizona. The proposed project consists of removing a structurally unsound monopole and replacing the monopole with a new 250-foot-tall four-leg, self-supporting lattice tower. The new galvanized steel lattice tower will be installed west and about 15 feet downhill from the current monopole. The City is seeking financial assistance for the project through the Arizona Department of Homeland Security, from the Public Safety Interoperable Communications Grant Program. The Grant requires the City to complete and Environmental Information Review Spreadsheet to ensure the requirements of the National Environmental Policy Act; Section 106 of the National Historic Preservation Act and the Federal Communications Commission are addressed.

On Friday, October 15, 2009 at a regular monthly meeting of the Four Tribes Cultural Resources Working Group at the Gila River Indian Community (GRIC) Governance Center, Mr. Todd Bostwick, City Archaeologist; Juan Giron, P.E., LEED AP Civil Engineer III and Bill Phillips, Enterprise Technology Manager via power point provided information on the proposed project. The GRIC previously in response to a proposed federal undertaking through the South Mountain Range provided comments that we wish to assert to the proposed tower project in the following comments:

The cultural significance of South Mountain figures prominently in oral traditions of the Four Southern Tribes (Gila River Indian Community; Salt River Pima-Maricopa Indian Community; Ak-Chin Indian Community and the Tohono O'Odham Nation) as well as the Pee Posh, formally known as the Maricopa Tribe of the Gila River Indian Community and of the Salt River Pima-Maricopa Indian Community.

The Gila River Indian Community identifies South Mountain as a Traditional Cultural Property. Traditional cultural properties are defined as historic sites that are important because of "their association with cultural practices or beliefs of a living community that (a) are rooted in the community's history, and (b) are important in maintaining the continuing cultural identity of the community" (National Register Bulletin 38). Historic sites must exhibit four attributes: an age greater than 50 years; existence as a tangible property; integrity in relationship to the transmission and retention of cultural beliefs or the performance of ceremonial practices; and integrity of condition wherein their traditional cultural significance has not been reduced through alteration of location, setting, design or materials.

The Gila River Indian Community was established by an act of Congress in 1859 that comprises 372,000 acres that protected some of our ancestral lands and provided a land base for the Akimel O'Odham and Pee Posh. However Muhadagi Doag (Greasy Mountain) was not included as part of the present day community. This mistake restricted and prevented access by community members to this sacred mountain. South Mountain stands prominently within the landscape and is central to our traditional and spiritual understanding of respect for the natural resources and vast ecosystem that we believe will continue the imitate the relationship that enables us to live harmoniously within this desert environment. Our elders through oral tradition reaffirm valuable cultural information regarding our people's use of the mountain area that are continuously reiterated through stories and songs of the people of this community.

The Akimel O'Odham base the origin of Muhadagi Doag as the traditional name from the story of creation that has been documented by researchers Bahr 2001:13, 32,; Bostwick 2002:1; Densmore 1929:41; Lloyd 1911:77, 125; Saxton and Saxton 1973:328; Rea 1996:18; Russell 1908:216,224, 278; Spier 1933:351 and the Pee Posh identify South Mountain as Avikwax'os that has been documented by researchers; Harrington 1908:33; Rea 1996; Spier 1933:252-253. From our story of creation Se'ehe also known as I'itoi an ancient deity of the O'Odham has different mountain homes. Muhadagi Doag is one of his mountain homes where he resided before traveling to south to other mountain homes.

Some modern impacts have occurred since the establishment of the City of Phoenix but the South Mountain range still holds it's physical and cultural integrity and does not diminish the mountain's religious and cultural significance. South Mountain has numerous petroglyphs that have been recorded within and around South Mountain that demonstrates its traditional religious uses since the prehistoric days of our Hohokam ancestors.

In review of the information in your letter and URS Cultural Resource Report 2009-40 (AZ) titled "Cultural Resource Survey for the Replacement of a Tower within the South Mountain Communication Site" the GRIC concurs with your determination of no adverse effect as defined by regulations for Protection of Historic Properties [Title 36, Code of Federal Regulations, Part 800.5(b)].

The GRIC appreciates the efforts of the City in addressing our concerns on adverse impacts on the traditional cultural values of South Mountain. The GRIC is pleased that the City has taken the position that no new communication towers will be erected on South Mountain. Please call me at 1-520-562-7152 should you have any questions or require further information.

Sincerely,

A handwritten signature in black ink, appearing to read "Barnaby V. Lewis". The signature is written in a cursive style with a large initial "B".

Barnaby V. Lewis, Tribal Historic Preservation Officer
Gila River Indian Community,

cc; Four Southern Tribes
Todd Bostwick, City of Phoenix Archaeologist



City of Phoenix

ENGINEERING & ARCHITECTURAL SERVICES DEPARTMENT
200 West Washington Street, 7th Floor
Phoenix, Arizona 85003-1611

20 October 2009

CERTIFIED MAIL 7005 2570 000 4852 2924

← added after mailing

The Honorable Louis J. Manuel Jr., Chairman
Ak-Chin Indian Community
42507 W. Peters & Nall Road
Maricopa, Arizona 85239

Subject: South Mountain Communications Tower, Environmental Review

Dear Chairman Manuel:

To address objectives of the Department of Homeland Security, the City of Phoenix (City) plans to upgrade a transmitting and receiving facility within the South Mountain Communications Site by installing a 10-channel, 700-megahertz digital communications system for radio and wireless conference interoperability. The communications site is on land owned by the City in the South Mountain Park. An existing 225-foot-tall monopole in the facility is structurally unsound and failure of the monopole would disrupt critical communications between police, firefighters, and other emergency response operations. The City plans to remove the existing monopole and replace it with a new 250-foot-tall four-leg, self-supporting lattice tower. The new galvanized steel lattice tower will be installed west and about 15 feet downhill of the existing monopole. The top of the replacement tower will be about 10 feet higher than the current monopole. An 8-foot-tall whip antenna extends above the top of the existing monopole and will be installed on the replacement tower as well, but no beacon light or red and white paint will be necessary to meet Federal Aviation Administration standards because there are other taller towers within the South Mountain Communications Site. The replacement tower will make another nearby 125-foot-tall monopole within the facility obsolete, and it will be removed.

Under the terms of an August 2003 Intergovernmental Agreement (Number 101007), the City provides the Gila River Indian Community space on the existing monopole and in the equipment shelter for a 4-channel, 800-megahertz communications system, and also provides microwave backhaul connectivity into the Gila River Indian Community Reservation microwave system. An ancillary benefit of the proposed project would be enhanced reliability of the Gila River Indian Community system.

The four legs of the replacement tower will be anchored in concrete foundations about 30 feet deep. The existing equipment shelter at the base of the replacement tower will be modified slightly by installation of a new antenna entry port in one wall. One pole of an electrical line that provides power to the facility will be relocated to provide room for the replacement tower. Shifting of the location of the pole and service line will require excavating a conduit trench about 3 feet deep and 100 feet long, mostly within the road used to access the facility. A temporary construction staging area about 50 feet wide and 100 feet long, located in a partially cleared area adjacent to TV Road about 500 feet south of and down slope of the tower, will be used for off loading and storing materials and equipment. About 100 cubic yards of excess

EAS MISSION STATEMENT:
ENGINEERING EXCELLENCE
ARCHITECTURAL VISION
SUPERIOR CUSTOMER SERVICES
EAS MAKES IT ALL HAPPEN

excavated rock will be hauled to and temporarily stockpiled in an existing materials stockpile area next to the quarter-midget race track in South Mountain Park, about 1.8 miles west of the tower.

The City is seeking financial assistance for the project, through the Arizona Department of Homeland Security, from the Public Safety Interoperable Communications Grant Program, which is administered by the National Telecommunications and Information Administration, an agency of the Department of Commerce. The grant application requires the City to complete an Environmental Information Review Spreadsheet to ensure that the requirements of the National Environmental Policy Act and other federal laws, such as Section 106 of the National Historic Preservation Act are addressed. The City retained URS Corporation to conduct studies to support completion of the Environmental Information Review Spreadsheet, and one of those was a cultural resource study. The study report is enclosed for your review.

The cultural resource study defined the area of potential effects for direct construction impacts as the areas of potential ground disturbance and any property that would be physically altered by the project. Those areas cover about 0.9 acre (at the tower facility, temporary construction staging area, and temporary materials stockpile area). The area of potential effects for visual impacts was defined as extending 0.75 mile around the replacement tower, which is consistent with Federal Communications Commission guidelines for assessing visual impacts of wireless communication towers.

The cultural resource survey did not identify any archaeological or historical features or artifacts within or near the area of potential effects for direct construction impacts, but a records review documented that the planned project is within the South Mountain Park and Preserves Historic District, which is listed in the Phoenix Historic Property Register and is being nominated to the National Register of Historic Places. The records review determined that two historical lookout shelters that are contributing buildings of the district and one historic-age equipment shelter [designated AZ T:12:140(ASM)] are within the area of potential effects for visual impacts. The cultural resource report also documents that the Gila River Indian Community and Salt River Pima-Maricopa Indian Community have passed tribal resolutions stating that they consider South Mountain to be a sacred place/traditional cultural property because of its prominent role in the oral traditions and songs of the Akimel O'odham and Pee Posh. For the purposes of the current analysis, the historic district and South Mountain were considered eligible for the National Register of Historic Places under Criterion A (association with significant historic events) and the equipment shelter designated AZ T:12:140(ASM) was considered eligible under Criterion D, as recommended when it was originally recorded.

There are 46 towers and 41 equipment buildings within the South Mountain Communications Site, spread along approximately 0.5 mile of the spine of South Mountain. The tallest tower is 416 feet tall, and 12 towers are taller than the proposed 250-foot-tall replacement tower. Because of the undulating topography of the spine of South Mountain, the tower foundations are at various heights; 19 of the existing towers would be above the absolute height of the proposed replacement tower. Appendix B of the enclosed report has two photographs that show the existing facility from a nearby location northeast of the facility and from the historic Dobbins Lookout Shelter about 0.75 mile north of the tower location, as well as photo simulations of the planned replacement tower from those two locations. The simulations indicate that the removal of two towers and installation of a slightly taller replacement tower would result in only minor changes to existing views of the 46 towers in the South Mountain Communications Site. Because the replacement tower would not diminish the integrity of the South Mountain Park and Preserve Historic

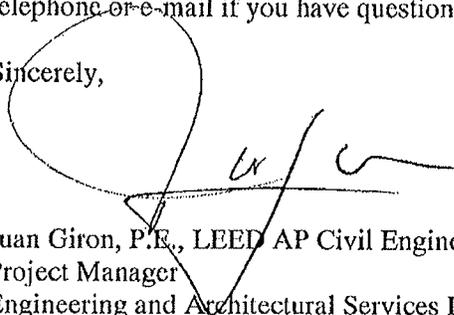
Chairman Manuel
20 October 2009
Page 3

District, a determination of no adverse effect, as defined by regulations for Protection of Historic Properties [Title 36, Code of Federal Regulations, Part 800.5(b)], seems appropriate.

On 15 October, City staff presented information at a meeting of the Cultural Resources Working Group of the Four Southern Tribes. Barnaby Lewis, Tribal Historic Preservation Officer of the Gila River Indian Community, confirmed that the South Mountains are a sacred traditional cultural resource for the Four Southern Tribes (Ak-Chin Indian Community, Gila River Indian Community, Salt River Pima-Maricopa Indian Community, and Tohono O'odham Nation). Mr. Lewis indicated that the tribes would object to new communication towers on the mountain, but the proposed replacement tower seemed to be a justifiable project and would have a minor impact on the mountain. He indicated that the tribes looked forward to reviewing the cultural resource report, and probably would not object to the proposed project.

To complete the Environmental Information Review Spreadsheet, I am contacting you to determine if your tribe has concerns about the project, especially with regards to potential impacts on traditional cultural resources that have significance for your tribal community. By copy of this letter, I am providing the cultural resource survey report to your Cultural Resources Manager. Please indicate your concurrence with a determination of no adverse effect in the space provided below, or submit your comments to me. We would appreciate your response within 2 weeks of your receipt of this letter. Please contact me by telephone or e-mail if you have questions. Thank you for your cooperation.

Sincerely,



Juan Giron, P.E., LEED AP Civil Engineer III
Project Manager
Engineering and Architectural Services Department
City of Phoenix
200 W. Washington Street, 7th Floor
Phoenix, AZ 85003
Phone: (602) 262-4956
Email: juan.giron@phoenix.gov

Enclosure: cultural resource report

cc: Caroline Antone, Cultural Resources Manager (w/ enclosure)

Signature for Ak-Chin Indian Community Concurrence

Date

SENDER: COMPLETE THIS SECTION

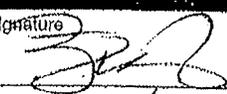
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- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

THE HONORABLE LOUIS J MANUAL JR
CHAIRMAN
AK-CHIN INDIAN COMMUNITY
42507 W PETERS & NALL ROAD
MARICOPA AZ 85239

2. Article Number
(transfer from service label)

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A. Signature
X  Agent
 Address

B. Received by (Printed Name) *Florin Vincent* C. Date of Delivery *11/2/09*

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If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

7005 2570 0000 4852 2924

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 Services Dept.
 200 W. Washington St. 7th Fl
 Phoenix, AZ 85003

City of Phoenix

Juan Garcia

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City of Phoenix

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Phoenix, Arizona 85003-1611

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NOV 19 2009

Presidents Office

20 October 2009

The Honorable Dr. Clinton M. Pattea, President
Fort McDowell Yavapai Nation
17661 E. Yavapai Road
Fort McDowell, Arizona 85264

Subject: South Mountain Communications Tower, Environmental Review

Dear President Pattea:

To address objectives of the Department of Homeland Security, the City of Phoenix (City) plans to upgrade a transmitting and receiving facility within the South Mountain Communications Site by installing a 10-channel, 700-megahertz digital communications system for radio and wireless conference interoperability. The communications site is on land owned by the City in the South Mountain Park. An existing 225-foot-tall monopole in the facility is structurally unsound and failure of the monopole would disrupt critical communications between police, firefighters, and other emergency response operations. The City plans to remove the existing monopole and replace it with a new 250-foot-tall four-leg, self-supporting lattice tower. The new galvanized steel lattice tower will be installed west and about 15 feet downhill of the existing monopole. The top of the replacement tower will be about 10 feet higher than the current monopole. An 8-foot-tall whip antenna extends above the top of the existing monopole and will be installed on the replacement tower as well, but no beacon light or red and white paint will be necessary to meet Federal Aviation Administration standards because there are other taller towers within the South Mountain Communications Site. The replacement tower will make another nearby 125-foot-tall monopole within the facility obsolete, and it will be removed.

Under the terms of an August 2003 Intergovernmental Agreement (Number 101007), the City provides the Gila River Indian Community space on the existing monopole and in the equipment shelter for a 4-channel, 800-megahertz communications system, and also provides microwave backhaul connectivity into the Gila River Indian Community Reservation microwave system. An ancillary benefit of the proposed project would be enhanced reliability of the Gila River Indian Community system.

The four legs of the replacement tower will be anchored in concrete foundations about 30 feet deep. The existing equipment shelter at the base of the replacement tower will be modified slightly by installation of a new antenna entry port in one wall. One pole of an electrical line that provides power to the facility will be relocated to provide room for the replacement tower. Shifting of the location of the pole and service line will require excavating a conduit trench about 3 feet deep and 100 feet long, mostly within the road used to access the facility. A temporary construction staging area about 50 feet wide and 100 feet long, located in a partially cleared area adjacent to TV Road about 500 feet south of and down slope of the tower, will be used for off loading and storing materials and equipment. About 100 cubic yards of excess excavated rock will be hauled to and temporarily stockpiled in an existing materials stockpile area next to the quarter-midget race track in South Mountain Park, about 1.8 miles west of the tower.

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ARCHITECTURAL VISION
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The City is seeking financial assistance for the project, through the Arizona Department of Homeland Security, from the Public Safety Interoperable Communications Grant Program, which is administered by the National Telecommunications and Information Administration, an agency of the Department of Commerce. The grant application requires the City to complete an Environmental Information Review Spreadsheet to ensure that the requirements of the National Environmental Policy Act and other federal laws, such as Section 106 of the National Historic Preservation Act are addressed. The City retained URS Corporation to conduct studies to support completion of the Environmental Information Review Spreadsheet, and one of those was a cultural resource study. The study report is enclosed for your review.

The cultural resource study defined the area of potential effects for direct construction impacts as the areas of potential ground disturbance and any property that would be physically altered by the project. Those areas cover about 0.9 acre (at the tower facility, temporary construction staging area, and temporary materials stockpile area). The area of potential effects for visual impacts was defined as extending 0.75 mile around the replacement tower, which is consistent with Federal Communications Commission guidelines for assessing visual impacts of wireless communication towers.

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There are 46 towers and 41 equipment buildings within the South Mountain Communications Site, spread along approximately 0.5 mile of the spine of South Mountain. The tallest tower is 416 feet tall, and 12 towers are taller than the proposed 250-foot-tall replacement tower. Because of the undulating topography of the spine of South Mountain, the tower foundations are at various heights; 19 of the existing towers would be above the absolute height of the proposed replacement tower. Appendix B of the enclosed report has two photographs that show the existing facility from a nearby location northeast of the facility and from the historic Dobbins Lookout Shelter about 0.75 mile north of the tower location, as well as photo simulations of the planned replacement tower from those two locations. The simulations indicate that the removal of two towers and installation of a slightly taller replacement tower would result in only minor changes to existing views of the 46 towers in the South Mountain Communications Site. Because the replacement tower would not diminish the integrity of the South Mountain Park and Preserve Historic District, a determination of no adverse effect, as defined by regulations for Protection of Historic Properties [Title 36, Code of Federal Regulations, Part 800.5(b)], seems appropriate.

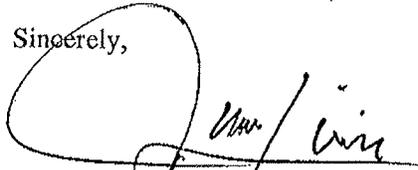
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President Pattea
20 October 2009
Page 3

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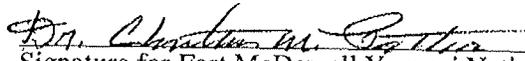
Sincerely,



Juan Giron, P.E., LEED AP Civil Engineer III
Project Manager
Engineering and Architectural Services Department
City of Phoenix
200 W. Washington Street, 7th Floor
Phoenix, AZ 85003
Phone: (602) 262-4956
Email: juan.giron@phoenix.gov

Enclosure: cultural resource report

cc: Gary Loutzenheiser, Principal, H'man 'Shawa Elementary School (w/ enclosure)


Signature for Fort McDowell Yavapai Nation Concurrence

11-20-09
Date

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1. Article Addressed to:

*The Honorable Dr. Clinton M
Pattea President
Fort McDowell Yavapai
Nation
PO BOX 17779
Fountain Hills AZ 85269*

2. Article Number

(Transfer from service label)

7005 2570 0000 4852 3884

PS Form 3811, February 2004

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102595-02-M-1540

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A. Signature

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Agent

Addressee

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NOV 19 2009

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D. WARRINGTON

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Yes

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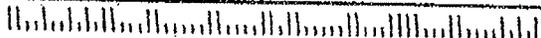
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City of Phoenix

Engineering & Architectural
Services Dept.
200 W. Washington St. 7th Fl
Phoenix, AZ 85003

Juan Giron





City of Phoenix

ENGINEERING & ARCHITECTURAL SERVICES DEPARTMENT
200 West Washington Street, 7th Floor
Phoenix, Arizona 85003-1611

20 October 2009

CERTIFIED MAIL 7005 2570 0000 4852 3853 ← added after Marina

The Honorable William R. Rhodes, Governor
Gila River Indian Community
P.O. Box 97
Sacaton, Arizona 85247

Subject: South Mountain Communications Tower, Environmental Review

Dear Governor Rhodes:

To address objectives of the Department of Homeland Security, the City of Phoenix (City) plans to upgrade a transmitting and receiving facility within the South Mountain Communications Site by installing a 10-channel, 700-megahertz digital communications system for radio and wireless conference interoperability. The communications site is on land owned by the City in the South Mountain Park. An existing 225-foot-tall monopole in the facility is structurally unsound and failure of the monopole would disrupt critical communications between police, firefighters, and other emergency response operations. The City plans to remove the existing monopole and replace it with a new 250-foot-tall four-leg, self-supporting lattice tower. The new galvanized steel lattice tower will be installed west and about 15 feet downhill of the existing monopole. The top of the replacement tower will be about 10 feet higher than the current monopole. An 8-foot-tall whip antenna extends above the top of the existing monopole and will be installed on the replacement tower as well, but no beacon light or red and white paint will be necessary to meet Federal Aviation Administration standards because there are other taller towers within the South Mountain Communications Site. The replacement tower will make another nearby 125-foot-tall monopole within the facility obsolete, and it will be removed.

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The four legs of the replacement tower will be anchored in concrete foundations about 30 feet deep. The existing equipment shelter at the base of the replacement tower will be modified slightly by installation of a new antenna entry port in one wall. One pole of an electrical line that provides power to the facility will be relocated to provide room for the replacement tower. Shifting of the location of the pole and service line will require excavating a conduit trench about 3 feet deep and 100 feet long, mostly within the road used to access the facility. A temporary construction staging area about 50 feet wide and 100 feet long, located in a partially cleared area adjacent to TV Road about 500 feet south of and down slope of the tower, will be used for off loading and storing materials and equipment. About 100 cubic yards of excess

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The City is seeking financial assistance for the project, through the Arizona Department of Homeland Security, from the Public Safety Interoperable Communications Grant Program, which is administered by the National Telecommunications and Information Administration, an agency of the Department of Commerce. The grant application requires the City to complete an Environmental Information Review Spreadsheet to ensure that the requirements of the National Environmental Policy Act and other federal laws, such as Section 106 of the National Historic Preservation Act are addressed. The City retained URS Corporation to conduct studies to support completion of the Environmental Information Review Spreadsheet, and one of those was a cultural resource study. The study report is enclosed for your review.

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There are 46 towers and 41 equipment buildings within the South Mountain Communications Site, spread along approximately 0.5 mile of the spine of South Mountain. The tallest tower is 416 feet tall, and 12 towers are taller than the proposed 250-foot-tall replacement tower. Because of the undulating topography of the spine of South Mountain, the tower foundations are at various heights; 19 of the existing towers would be above the absolute height of the proposed replacement tower. Appendix B of the enclosed report has two photographs that show the existing facility from a nearby location northeast of the facility and from the historic Dobbins Lookout Shelter about 0.75 mile north of the tower location, as well as photo simulations of the planned replacement tower from those two locations. The simulations indicate that the removal of two towers and installation of a slightly taller replacement tower would result in only minor changes to existing views of the 46 towers in the South Mountain Communications Site. Because the replacement tower would not diminish the integrity of the South Mountain Park and Preserve Historic

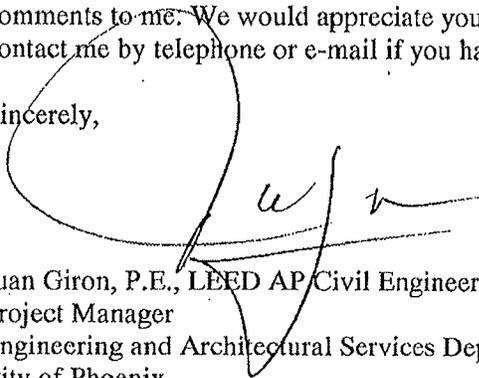
Governor Rhodes
20 October 2009
Page 3

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Sincerely,



Juan Giron, P.E., LEED AP Civil Engineer III
Project Manager
Engineering and Architectural Services Department
City of Phoenix
200 W. Washington Street, 7th Floor
Phoenix, AZ 85003
Phone: (602) 262-4956
Email: juan.giron@phoenix.gov

Enclosure: cultural resource report

cc: Barnaby Lewis, Tribal Historic Preservation Officer (w/ enclosure)

Signature for Gila River Indian Community Concurrence

Date

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1. Article Addressed to:

THE HONORABLE WILLIAM R RHODES
GOVERNOR
GILA RIVER INDIAN COMMUNITY
PO BOX 97
SACATON AZ 85247

COMPLETE THIS SECTION ON DELIVERY

Signature Agent
 Addressee

B. Received by (Printed Name) *85* C. Date of Delivery

D. Is delivery address different from item 1? Yes
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USPS

3. Service Type

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 Registered Return Receipt for Merchandise
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Restricted Delivery? (Extra Fee) Yes

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Phoenix, AZ 85003

Juan Garon





City of Phoenix

ENGINEERING & ARCHITECTURAL SERVICES DEPARTMENT
200 West Washington Street, 7th Floor
Phoenix, Arizona 85003-1611

20 October 2009

CERTIFIED MAIL 7005 2570 0000 4852 3846 ← added after mailing

Mary A. Felter, Tribal Secretary
Hopi Tribe
P.O. Box 123
Kykotsmovi, Arizona 86039

Subject: South Mountain Communications Tower, Environmental Review

Dear Ms. Felter:

To address objectives of the Department of Homeland Security, the City of Phoenix (City) plans to upgrade a transmitting and receiving facility within the South Mountain Communications Site by installing a 10-channel, 700-megahertz digital communications system for radio and wireless conference interoperability. The communications site is on land owned by the City in the South Mountain Park. An existing 225-foot-tall monopole in the facility is structurally unsound and failure of the monopole would disrupt critical communications between police, firefighters, and other emergency response operations. The City plans to remove the existing monopole and replace it with a new 250-foot-tall four-leg, self-supporting lattice tower. The new galvanized steel lattice tower will be installed west and about 15 feet downhill of the existing monopole. The top of the replacement tower will be about 10 feet higher than the current monopole. An 8-foot-tall whip antenna extends above the top of the existing monopole and will be installed on the replacement tower as well, but no beacon light or red and white paint will be necessary to meet Federal Aviation Administration standards because there are other taller towers within the South Mountain Communications Site. The replacement tower will make another nearby 125-foot-tall monopole within the facility obsolete, and it will be removed.

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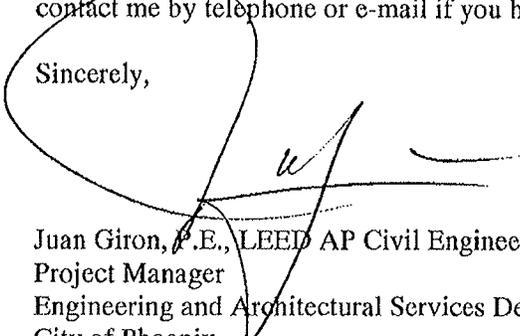
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Mary A. Felter
20 October 2009
Page 3

On 15 October, City staff presented information at a meeting of the Cultural Resources Working Group of the Four Southern Tribes. Barnaby Lewis, Tribal Historic Preservation Officer of the Gila River Indian Community, confirmed that the South Mountains are a sacred traditional cultural resource for the Four Southern Tribes (Ak-Chin Indian Community, Gila River Indian Community, Salt River Pima-Maricopa Indian Community, and Tohono O'odham Nation). Mr. Lewis indicated that the tribes would object to new communication towers on the mountain, but the proposed replacement tower seemed to be a justifiable project and would have a minor impact on the mountain. He indicated that the tribes looked forward to reviewing the cultural resource report, and probably would not object to the proposed project.

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Sincerely,



Juan Giron, P.E., LEED AP Civil Engineer III
Project Manager
Engineering and Architectural Services Department
City of Phoenix
200 W. Washington Street, 7th Floor
Phoenix, AZ 85003
Phone: (602) 262-4956
Email: juan.giron@phoenix.gov

Enclosure: cultural resource report

cc: Leigh Kuwanwisiwma, Director, Hopi Cultural Preservation Office (w/ enclosure)

Signature for Hopi Tribe Concurrence

Date

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 HOPI TRIBE
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 KYKOTSMOVI AZ 86039

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Juan Ciron





City of Phoenix

ENGINEERING & ARCHITECTURAL SERVICES DEPARTMENT
200 West Washington Street, 7th Floor
Phoenix, Arizona 85003-1611

20 October 2009

CERTIFIED MAIL 7005 2570 0000 4852 3877 *Added after mailing*

The Honorable Diane Enos, President
Salt River Pima-Maricopa Indian Community
10005 E. Osborn Road
Scottsdale, Arizona 85256

Subject: South Mountain Communications Tower, Environmental Review

Dear President Enos:

To address objectives of the Department of Homeland Security, the City of Phoenix (City) plans to upgrade a transmitting and receiving facility within the South Mountain Communications Site by installing a 10-channel, 700-megahertz digital communications system for radio and wireless conference interoperability. The communications site is on land owned by the City in the South Mountain Park. An existing 225-foot-tall monopole in the facility is structurally unsound and failure of the monopole would disrupt critical communications between police, firefighters, and other emergency response operations. The City plans to remove the existing monopole and replace it with a new 250-foot-tall four-leg, self-supporting lattice tower. The new galvanized steel lattice tower will be installed west and about 15 feet downhill of the existing monopole. The top of the replacement tower will be about 10 feet higher than the current monopole. An 8-foot-tall whip antenna extends above the top of the existing monopole and will be installed on the replacement tower as well, but no beacon light or red and white paint will be necessary to meet Federal Aviation Administration standards because there are other taller towers within the South Mountain Communications Site. The replacement tower will make another nearby 125-foot-tall monopole within the facility obsolete, and it will be removed.

Under the terms of an August 2003 Intergovernmental Agreement (Number 101007), the City provides the Gila River Indian Community space on the existing monopole and in the equipment shelter for a 4-channel, 800-megahertz communications system, and also provides microwave backhaul connectivity into the Gila River Indian Community Reservation microwave system. An ancillary benefit of the proposed project would be enhanced reliability of the Gila River Indian Community system.

The four legs of the replacement tower will be anchored in concrete foundations about 30 feet deep. The existing equipment shelter at the base of the replacement tower will be modified slightly by installation of a new antenna entry port in one wall. One pole of an electrical line that provides power to the facility will be relocated to provide room for the replacement tower. Shifting of the location of the pole and service line will require excavating a conduit trench about 3 feet deep and 100 feet long, mostly within the road used to access the facility. A temporary construction staging area about 50 feet wide and 100 feet long, located in a partially cleared area adjacent to TV Road about 500 feet south of and down slope of the tower, will be used for off loading and storing materials and equipment. About 100 cubic yards of excess

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excavated rock will be hauled to and temporarily stockpiled in an existing materials stockpile area next to the quarter-mile race track in South Mountain Park, about 1.8 miles west of the tower.

The City is seeking financial assistance for the project, through the Arizona Department of Homeland Security, from the Public Safety Interoperable Communications Grant Program, which is administered by the National Telecommunications and Information Administration, an agency of the Department of Commerce. The grant application requires the City to complete an Environmental Information Review Spreadsheet to ensure that the requirements of the National Environmental Policy Act and other federal laws, such as Section 106 of the National Historic Preservation Act are addressed. The City retained URS Corporation to conduct studies to support completion of the Environmental Information Review Spreadsheet, and one of those was a cultural resource study. The study report is enclosed for your review.

The cultural resource study defined the area of potential effects for direct construction impacts as the areas of potential ground disturbance and any property that would be physically altered by the project. Those areas cover about 0.9 acre (at the tower facility, temporary construction staging area, and temporary materials stockpile area). The area of potential effects for visual impacts was defined as extending 0.75 mile around the replacement tower, which is consistent with Federal Communications Commission guidelines for assessing visual impacts of wireless communication towers.

The cultural resource survey did not identify any archaeological or historical features or artifacts within or near the area of potential effects for direct construction impacts, but a records review documented that the planned project is within the South Mountain Park and Preserves Historic District, which is listed in the Phoenix Historic Property Register and is being nominated to the National Register of Historic Places. The records review determined that two historical lookout shelters that are contributing buildings of the district and one historic-age equipment shelter [designated AZ T:12:140(ASM)] are within the area of potential effects for visual impacts. The cultural resource report also documents that the Gila River Indian Community and Salt River Pima-Maricopa Indian Community have passed tribal resolutions stating that they consider South Mountain to be a sacred place/traditional cultural property because of its prominent role in the oral traditions and songs of the Akimel O'odham and Pee Posh. For the purposes of the current analysis, the historic district and South Mountain were considered eligible for the National Register of Historic Places under Criterion A (association with significant historic events) and the equipment shelter designated AZ T:12:140(ASM) was considered eligible under Criterion D, as recommended when it was originally recorded.

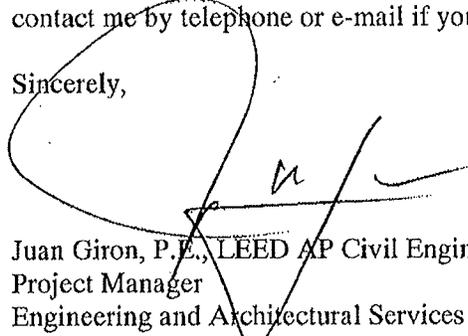
There are 46 towers and 41 equipment buildings within the South Mountain Communications Site, spread along approximately 0.5 mile of the spine of South Mountain. The tallest tower is 416 feet tall, and 12 towers are taller than the proposed 250-foot-tall replacement tower. Because of the undulating topography of the spine of South Mountain, the tower foundations are at various heights; 19 of the existing towers would be above the absolute height of the proposed replacement tower. Appendix B of the enclosed report has two photographs that show the existing facility from a nearby location northeast of the facility and from the historic Dobbins Lookout Shelter about 0.75 mile north of the tower location, as well as photo simulations of the planned replacement tower from those two locations. The simulations indicate that the removal of two towers and installation of a slightly taller replacement tower would result in only minor changes to existing views of the 46 towers in the South Mountain Communications Site. Because the replacement tower would not diminish the integrity of the South Mountain Park and Preserve Historic District, a determination of no adverse effect, as defined by regulations for Protection of Historic Properties [Title 36, Code of Federal Regulations, Part 800.5(b)], seems appropriate.

President Enos
20 October 2009
Page 3

On 15 October, City staff presented information at a meeting of the Cultural Resources Working Group of the Four Southern Tribes. Barnaby Lewis, Tribal Historic Preservation Officer of the Gila River Indian Community, confirmed that the South Mountains are a sacred traditional cultural resource for the Four Southern Tribes (Ak-Chin Indian Community, Gila River Indian Community, Salt River Pima-Maricopa Indian Community, and Tohono O'odham Nation). Mr. Lewis indicated that the tribes would object to new communication towers on the mountain, but the proposed replacement tower seemed to be a justifiable project and would have a minor impact on the mountain. He indicated that the tribes looked forward to reviewing the cultural resource report, and probably would not object to the proposed project.

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Sincerely,



Juan Giron, P.E., LEED AP Civil Engineer III
Project Manager
Engineering and Architectural Services Department
City of Phoenix
200 W. Washington Street, 7th Floor
Phoenix, AZ 85003
Phone: (602) 262-4956
Email: juan.giron@phoenix.gov

Enclosure: cultural resource report

cc: Shane Anton, Supervisor, Cultural Preservation Program (w/ enclosure)

Signature for Salt River Pima-Maricopa Indian Community Concurrence Date

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1. Article Addressed to:

THE HONORABLE DIANE ENOS
 PRESIDENT
 SALT RIVER PIMA MARICOPA INDIAN
 COMMUNITY
 10005 E OSBORN ROAD
 SCOTTSDALE AZ 85256

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 Addressee

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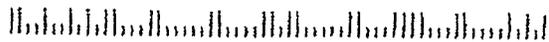
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Juan Geron





City of Phoenix

ENGINEERING & ARCHITECTURAL SERVICES DEPARTMENT
200 West Washington Street, 7th Floor
Phoenix, Arizona 85003-1611

20 October 2009

CERTIFIED MAIL 7005 2570 0000 4852 38222

← added after mailing

The Honorable Ned Norris Jr., Chairman
Tohono O'odham Nation
P.O. Box 837
Sells, Arizona 85634

Subject: South Mountain Communications Tower, Environmental Review

Dear Chairman Norris:

To address objectives of the Department of Homeland Security, the City of Phoenix (City) plans to upgrade a transmitting and receiving facility within the South Mountain Communications Site by installing a 10-channel, 700-megahertz digital communications system for radio and wireless conference interoperability. The communications site is on land owned by the City in the South Mountain Park. An existing 225-foot-tall monopole in the facility is structurally unsound and failure of the monopole would disrupt critical communications between police, firefighters, and other emergency response operations. The City plans to remove the existing monopole and replace it with a new 250-foot-tall four-leg, self-supporting lattice tower. The new galvanized steel lattice tower will be installed west and about 15 feet downhill of the existing monopole. The top of the replacement tower will be about 10 feet higher than the current monopole. An 8-foot-tall whip antenna extends above the top of the existing monopole and will be installed on the replacement tower as well, but no beacon light or red and white paint will be necessary to meet Federal Aviation Administration standards because there are other taller towers within the South Mountain Communications Site. The replacement tower will make another nearby 125-foot-tall monopole within the facility obsolete, and it will be removed.

Under the terms of an August 2003 Intergovernmental Agreement (Number 101007), the City provides the Gila River Indian Community space on the existing monopole and in the equipment shelter for a 4-channel, 800-megahertz communications system, and also provides microwave backhaul connectivity into the Gila River Indian Community Reservation microwave system. An ancillary benefit of the proposed project would be enhanced reliability of the Gila River Indian Community system.

The four legs of the replacement tower will be anchored in concrete foundations about 30 feet deep. The existing equipment shelter at the base of the replacement tower will be modified slightly by installation of a new antenna entry port in one wall. One pole of an electrical line that provides power to the facility will be relocated to provide room for the replacement tower. Shifting of the location of the pole and service line will require excavating a conduit trench about 3 feet deep and 100 feet long, mostly within the road used to access the facility. A temporary construction staging area about 50 feet wide and 100 feet long, located in a partially cleared area adjacent to TV Road about 500 feet south of and down slope of the tower, will be used for off loading and storing materials and equipment. About 100 cubic yards of excess

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excavated rock will be hauled to and temporarily stockpiled in an existing materials stockpile area next to the quarter-mile race track in South Mountain Park, about 1.8 miles west of the tower.

The City is seeking financial assistance for the project, through the Arizona Department of Homeland Security, from the Public Safety Interoperable Communications Grant Program, which is administered by the National Telecommunications and Information Administration, an agency of the Department of Commerce. The grant application requires the City to complete an Environmental Information Review Spreadsheet to ensure that the requirements of the National Environmental Policy Act and other federal laws, such as Section 106 of the National Historic Preservation Act are addressed. The City retained URS Corporation to conduct studies to support completion of the Environmental Information Review Spreadsheet, and one of those was a cultural resource study. The study report is enclosed for your review.

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There are 46 towers and 41 equipment buildings within the South Mountain Communications Site, spread along approximately 0.5 mile of the spine of South Mountain. The tallest tower is 416 feet tall, and 12 towers are taller than the proposed 250-foot-tall replacement tower. Because of the undulating topography of the spine of South Mountain, the tower foundations are at various heights; 19 of the existing towers would be above the absolute height of the proposed replacement tower. Appendix B of the enclosed report has two photographs that show the existing facility from a nearby location northeast of the facility and from the historic Dobbins Lookout Shelter about 0.75 mile north of the tower location, as well as photo simulations of the planned replacement tower from those two locations. The simulations indicate that the removal of two towers and installation of a slightly taller replacement tower would result in only minor changes to existing views of the 46 towers in the South Mountain Communications Site. Because the replacement tower would not diminish the integrity of the South Mountain Park and Preserve Historic

Chairman Norris
20 October 2009
Page 3

District, a determination of no adverse effect, as defined by regulations for Protection of Historic Properties [Title 36, Code of Federal Regulations, Part 800.5(b)], seems appropriate.

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Sincerely,



Juan Giron, P.E., LEED AP Civil Engineer III
Project Manager
Engineering and Architectural Services Department
City of Phoenix
200 W. Washington Street, 7th Floor
Phoenix, AZ 85003
Phone: (602) 262-4956
Email: juan.giron@phoenix.gov

Enclosure: cultural resource report

cc: Peter Steere, Project Manager, Cultural Affairs Department (w/ enclosure)

Signature for Tohono O'odham Nation Concurrence

Date

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1. Article Addressed to:

THE HONORABLE NED NORRIS JR.,
 CHAIRMAN
 TOHONO O'ODHAM NATION
 PO BOX 837
 SELLS AZ 85634

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Juan Guton



City of Phoenix

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200 West Washington Street, 7th Floor
Phoenix, Arizona 85003-1611

20 September 2009

CERTIFIED MAIL 7005 2570 0000 4852 3860

← added at 8:25 mailing

The Honorable Ernie Jones, Sr., President
Yavapai-Prescott Indian Tribe
530 E. Merritt Street
Prescott, Arizona 86301

Subject: South Mountain Communications Tower, Environmental Review

Dear President Jones:

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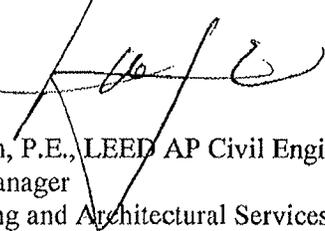
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President Jones
20 October 2009
Page 3

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Sincerely,



Juan Giron, P.E., LEED AP Civil Engineer III
Project Manager
Engineering and Architectural Services Department
City of Phoenix
200 W. Washington Street, 7th Floor
Phoenix, AZ 85003
Phone: (602) 262-4956
Email: juan.giron@phoenix.gov

Enclosure: cultural resource report

cc: Gregory Glassco, Compliance Officer (w/ enclosure)

Signature for Yavapai-Prescott Indian Tribe Concurrence

Date

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1. Article Addressed to:

THE HONORABLE ERNIE JONES SR
 PRESIDENT
 YAVAPAI-PRESCOTT INDIAN TRIBE
 530 E MERRITT STREET
 PRESCOTT AZ 86301

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Juan Giron





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To roger.lidman@phoenix.gov, kathryn.reichert@phoenix.gov,
brandie.ishcomer@phoenix.gov
cc Barbara.Stocklin@phoenix.gov,
elizabeth.wilson@phoenix.gov, juan.giron@phoenix.gov,
bill.phillips@phoenix.gov

bcc

Subject Four Tribes Consultation on South Mts Tower

Roger,

This morning I participated in a presentation on the proposed South Mountains Tower Replacement project to the Four Tribes Cultural Resource Working Group. The meeting was coordinated by Barnaby Lewis, Gila River Indian Community Tribal Preservation Officer, and was undertaken to meet, in part, the requirements for Tribal consultation according to Section 106 of the National Historic Preservation Act.

To begin our presentation, I introduced our group and summarized our purpose. Bill Phillips, Enterprise Technology Manager for ITS, presented an informative powerpoint that described the tower replacement project design, partners, and benefits. I then discussed the cultural resource surveys and the viewshed evaluations that were conducted by the company URS, a consultant working for the City. Juan Giron of EAS and Liz Wilson of the City Historic Preservation Office also were in attendance and available for questions.

Shane Anton, Cultural Resources Manager for the Salt River Pima-Maricopa Indian Community, asked if the new construction was going to go outside the current footprint of the tower's existing compound (It is not).

Barnaby Lewis then made a long and eloquent statement about the deep importance of the South Mountains to his people, the O'Odham, and how the mountains are prominently mentioned in their oral traditions and songs. He talked about when the reservation was established, the South Mountains were separated from their reservation by the government, but that did not separate the mountains from them spiritually. Lewis spoke about the sacred and religious importance of the mountains to the O'Odham, and that despite modern development and land ownership issues, the mountains remain at the core of their long-term survival. After Mr. Lewis finished his speech, he repeated it in the O'Odham language.

Mr. Lewis expressed his appreciation to the City for giving the presentation and consulting with him and the group, providing them an opportunity to express their views about proposed development in the mountains. He noted that his group would not look favorably at proposals for new towers, but the idea of replacing existing towers with upgraded towers would be considered a much smaller impact on the mountain, and the purpose for doing it justifiable. He acknowledged that we live in a modern world where urban expansion is a reality, and that his group was not out to stop development. But he also pleaded that the O'Odham views on the sacred nature of South Mountain be respected and taken seriously. He concluded that his office would review the cultural resources inventory report and consultation letter from the City (to be send out next week), and he would then respond in writing with similar comments as he made in the meeting.

Bill Phillips mentioned to the group that members of the COP Parks Board also had expressed their views that no new towers be built on South Mountains.

Bill and Juan felt the meeting went very well and they were glad they had the opportunity to hear what Mr. Lewis had to say. I also am pleased with the consultation.

Todd Bostwick, Ph.D.
City Archaeologist
Pueblo Grande Museum
602-495-0901
todd.bostwick@phoenix.gov

TRIBES/NHOS NOTIFIED THROUGH TCNS NOTIFICATION NUMBER 58600

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Tribe/NHO Name	Contact Name/Title	Date Notified	Date Replied	Reply
Ak Chin Indian Community Council	Caroline Antone Cultural Resources Representative	12/10/2009	12/23/2009	Replied/No Interest
Fort McDowell Yavapai Tribe	Gary Loutzenheiser Cultural Representative	12/09/2009		No Reply
Gila River Indian Community	Barnaby Lewis THPO	12/10/2009	12/22/2009	See Comments Below

Comments: The Gila River Indian Community Cultural Resource Specialist Office requests additional information (detailed legal description, cultural resource survey report, specific information detailing proposed work with specific details regarding type and description of construction of structure, ground disturbing activities at the site location, & detailed maps) in order to provide a finding of effect for this proposed undertaking. Please reference this TCNS number on all pieces of information submitted for review. Please contact Barnaby V. Lewis, Gila River Indian Community Tribal Historic Preservation Officer at 520-562-7152 with questions or comments or e-mail him at. barnaby.lewis@gric.nsn.us. The Gila River Indian Community strives to reply to every notification, so if you do not receive a response within 30 days of receipt of additional information please contact our offices. As a responder to the FCC 106 Consultations on behalf of Mr. Lewis please reply to my e-mail address at catherine.thomas@gric.nsn.us.

Kaibab Paiute Tribe	LeAnn Skrzynski Environmental Program Director	12/10/2009		No Reply
Mescalero Apache Tribe	Holly Houghten Tribal Historic Preservation Officer	12/10/2009	12/22/2009	Replied/No Interest
Pascua Yaqui Tribe	Marcelino Flores Community Development Coordinator	12/10/2009		No Reply
Pueblo of Zuni	Kenny Bowekaty Supervisory Archaeologist	12/10/2009	12/15/2009	Replied/No Interest
Salt River Pima-Maricopa Indian Community	Wechoni Schurz Cultural Preservation Program	12/10/2009		No Reply
San Juan Southern Paiute Tribe	Candelora Lehi Tribal Administrator	12/10/2009		No Reply
Tonto Apache Tribal Council	Wally Davis NAGPRA Representative	12/10/2009	12/28/2009	See Comments Below

Comments: The Tonto Apache Tribe Has No Interest In These Sites Thank You !!!!!

Yavapai-Prescott Indian Tribe	Greg Glassco Compliance Officer	12/09/2009	12/14/2009	See Comments Below
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Comments: The Yavapai-Prescott Indian Tribe wishes to defer to the Four Southern Tribes for TCNS 58600.



FEDERAL COMMUNICATIONS COMMISSION
Wireless Telecommunications Bureau
1270 Fairfield Road
Gettysburg, PA 17325-7245

NOTICE OF ORGANIZATION(S) WHICH WERE SENT
PROPOSED TOWER CONSTRUCTION NOTIFICATION INFORMATION

CITY OF PHOENIX
2441 S. 22ND AVE
PHOENIX, AZ 85009

Date: 12/11/2009
Reference Number:

Dear Sir or Madam:

Thank you for using the Federal Communications Commission's (FCC) Tower Construction Notification System (TCNS). The purpose of this electronic mail message is to inform you that the following authorized persons were sent the information you provided through TCNS, which relates to your proposed antenna structure. The information was forwarded by the FCC to authorized TCNS users by electronic mail and/or regular mail (letter).

Persons who have received the information that you provided include leaders or their designees of federally-recognized American Indian Tribes, including Alaska Native Villages (collectively "Tribes"), Native Hawaiian Organizations (NHOs), and State Historic Preservation Officers (SHPOs). For your convenience in identifying the referenced Tribes and in making further contacts, the City and State of the Seat of Government for each Tribe and NHO, as well as the designated contact person, is included in the listing below. We note that Tribes may have Section 106 cultural interests in ancestral homelands or other locations that are far removed from their current Seat of Government. Pursuant to the Commission's rules as set forth in the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission (NPA), all Tribes and NHOs listed below must be afforded a reasonable opportunity to respond to this notification, consistent with the procedures set forth below, unless the proposed construction falls within an exclusion designated by the Tribe or NHO. (NPA, Section IV.F.4).

The information you provided was forwarded to the following Tribes and NHOs who have set their geographic preferences on TCNS. If the information you provided relates to a proposed antenna structure in the State of Alaska, the following list also includes Tribes located in the State of Alaska that have not specified their geographic preferences. For these Tribes and NHOs, if the Tribe or NHO does not respond within a reasonable time, you should make a reasonable effort at follow-up contact, unless the Tribe or NHO has agreed to different procedures (NPA, Section IV.F.5). In the event such a Tribe or NHO does not respond to a follow-up inquiry, or if a substantive or procedural disagreement arises between you and a Tribe or NHO, you must seek guidance from the Commission (NPA, Section IV.G). These procedures are further set forth in the FCC's Declaratory Ruling released on October 6, 2005 (FCC 05-176).

1. Supervisory Archaeologist - Kenny Bowekaty - Pueblo of Zuni - Zuni, NM - electronic mail and regular mail

2. Cultural Resources Representative - Caroline Antone - Ak Chin Indian Community Council - Maricopa, AZ - regular mail

3. THPO - Barnaby Lewis - Gila River Indian Community - Sacaton, AZ - electronic mail and regular mail

Details: The Gila River Indian Community (GRIC) Cultural Resource Specialist Office (CRSO) requires detailed legal descriptions, specific information detailing proposed work regarding ground disturbing activities at the site location, and detailed maps in order to provide a finding of effect for proposed undertakings. If ground-disturbing activity is planned in the undertaking, a cultural resource survey report must be submitted in the packet information. One office should gather all information and send it together as a packet, instead of having the wireless company, an environmental company, and an archaeological contractor all send different letters with different pieces of information. This is to ensure that all information is organized and kept together to help the Community to respond in a shorter amount of time. Please reference the TCNS number on all pieces of information submitted for review. The GRIC CRSO does make an effort to respond to all notifications received via TCNS, so if you do not receive a response within 30 days, please contact Catherine Thomas via email at cthomas@gilariver.com or by phone at 520-562-6828. Please include the TCNS number, project name, and names of other parties involved in the project for further assistance.

4. Cultural Representative - Gary Loutzenheiser - Fort McDowell Yavapai Tribe - Fountain Hills, AZ - electronic mail
Details: If the Applicant receives no response from the Tribe within 30 days after notification through TCNS, the Tribe has no interest in participating in pre-construction review for the site. The Applicant, however, must notify the Tribe in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

5. Community Development Coordinator - Marcelino Flores - Pascua Yaqui Tribe - Tucson, AZ - electronic mail and regular mail

If the applicant/tower builder receives no response from the Pascua Yaqui Tribe within 30 days after notification through TCNS, the Pascua Yaqui Tribe has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder, however, must immediately notify the Pascua Yaqui Tribe in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

6. Cultural Preservation Program - Wechoni Schurz - Salt River Pima-Maricopa Indian Community - Scottsdale, AZ - electronic mail and regular mail

Details: SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY (SRP-MIC) MANAGEMENT AREA

The SRP-MIC is interested primarily in areas within the geographic area: North of Township 1 South and South of Township 14 North across the state of Arizona, excluding the tribal lands/reservations of the Pascua Yaqui Tribe,

Letter to *City of Phoenix*

Date: 12/11/2009

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Yavapai-Prescott Indian Tribe, Tonto Apache Tribe, Yavapai Apache Nation, White Mountain Apache Tribe, Fort McDowell Yavapai Apache Tribe, San Carlos Apache Tribe. If projects fall within the tribal lands of these tribes the SRP-MIC defers consultation to that particular tribe. The SRPMIC areas of interest include portions of Maricopa, Pinal, Gila, La Paz, and Yavapai Counties.

The SRP-MIC defers projects within the geographic area: Township 2 South Range 3 West (T2S,R3W) east to Township 2 South Range 1 West (T2S, R1W), south to Township 5 South Range 3 West (T5S,R3W) east to Township 5 South Range 1 West (T5S, R1W), to the Ak-Chin Indian Community. These areas include portions of Maricopa and Pinal Counties.

The SRP-MIC defers projects within the within the geographic area: South of Township 1 North Ranges and North of Township 7 South Range, to the Gila River Indian Community excluding the Ak-Chin Indian Community Management Area and the tribal lands/reservations of the San Carlos Apache Tribe, the Colorado Indian Tribes, and the Tohono O Odham Nation. These areas include portions of Maricopa, Pinal, Graham, and Yuma Counties.

The SRP-MIC defers projects within the geographic area: South of Township 7 South Range to the International US/Mexico Border to the Tohono O Odham Nation excluding the tribal lands/reservation of the Pascua Yaqui Indian Tribe. These areas include portions of Pinal, Pima, Graham, Cochise, and Yuma Counties.

COLLOCATION ONTO EXISTING STRUCTURE

The Salt River Pima-Maricopa Indian Community (SRP-MIC) concurs on projects where the proposed antenna or tower will be collocated on an existing tower, building, or other structure (and does not require ground disturbing activity.) The SRP-MIC does not wish to participate in pre-construction review of such projects, although we would appreciate the notification of such projects for our files. For collocation projects please send an email to srpmic.cultural-preservation@srpmic-nsn.gov with the heading Notification of FCC Collocation onto Existing Structure . If any ground disturbing activity of any kind is to take place, the project must be re-submitted for pre-construction review for the proposed site. The Applicant/tower builder, however, must immediately notify the Salt River Pima-Maricopa Indian Community in the event archaeological discovery of any type or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

INFORMATION REQUIRED TO PROVIDE A FINDING OF EFFECT FOR ALL OTHER PROJECTS

Please include the words

7. NAGPRA Representative - Wally Davis - Tonto Apache Tribal Council - Payson, AZ - regular mail

8. Compliance Officer - Greg Glassco - Yavapai-Prescott Indian Tribe - Prescott, AZ - electronic mail

9. Environmental Program Director - LeAnn Skrzynski - Kaibab Paiute Tribe - Fredonia, AZ - electronic mail and regular mail

If the applicant/tower builder receives no response from the Kaibab Paiute Tribe within 30 days after notification through TCNS, the Kaibab Paiute Tribe has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder, however, must immediately notify the Kaibab Paiute Tribe in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

10. Tribal Administrator - Candelora Lehi - San Juan Southern Paiute Tribe - Tuba City, AZ - electronic mail and regular mail

If the applicant/tower builder receives no response from the San Juan Southern Paiute Tribe within 30 days after notification through TCNS, the San Juan Southern Paiute Tribe has no interest in participating in pre-construction review for the proposed site. The Applicant/tower builder, however, must immediately notify the San Juan Southern Paiute Tribe in the event archaeological properties or human remains are discovered during construction, consistent with Section IX of the Nationwide Programmatic Agreement and applicable law.

11. Tribal Historic Preservation Officer - Holly Houghten - Mescalero Apache Tribe - Mescalero, NM - electronic mail and regular mail

Details: We do not wish to review towers that are being placed upon existing buildings.

The information you provided was also forwarded to the additional Tribes and NHOs listed below. These Tribes and NHOs have NOT set their geographic preferences on TCNS, and therefore they are currently receiving tower notifications for the entire United States. For these Tribes and NHOs, you are required to use reasonable and good faith efforts to determine if the Tribe or NHO may attach religious and cultural significance to historic properties that may be affected by its proposed undertaking. Such efforts may include, but are not limited to, seeking information from the relevant SHPO or THPO, Indian Tribes, state agencies, the U.S. Bureau of Indian Affairs, or, where applicable, any federal agency with land holdings within the state (NPA, Section IV.B). If after such reasonable and good faith efforts, you determine that a Tribe or NHO may attach religious and cultural significance to historic properties in the area and the Tribe or NHO does not respond to TCNS notification within a reasonable time, you should make a reasonable effort to follow up, and must seek guidance from the Commission in the event of continued non-response or in the event of a procedural or substantive disagreement. If you determine that the Tribe or NHO is unlikely to attach religious and cultural significance to historic properties within the area, you do not need to take further action unless the Tribe or NHO indicates an interest in the proposed construction or other evidence of potential interest comes to your attention.

None

Letter to *City of Phoenix*

Date: 12/11/2009

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The information you provided was also forwarded to the following SHPOs in the State in which you propose to construct and neighboring States. The information was provided to these SHPOs as a courtesy for their information and planning. You need make no effort at this time to follow up with any SHPO that does not respond to this notification. Prior to construction, you must provide the SHPO of the State in which you propose to construct (or the Tribal Historic Preservation Officer, if the project will be located on certain Tribal lands), with a Submission Packet pursuant to Section VII.A of the NPA.

12. Archeologist & Compliance Specialist - Connie Thompson Gibson - Arizona State Historic Preservation Office - Phoenix, AZ - electronic mail

13. Deputy SHPO - Carol Griffith - Arizona State Parks - Phoenix, AZ - electronic mail

14. Deputy SHPO - William Collins - Arizona State Parks - Phoenix, AZ - electronic mail

15. SHPO - Ronald James - Historic Preservation Office - Carson City, NV - regular mail

16. SHPO - Wilson Martin - Utah State Historical Society - Salt Lake City, UT - electronic mail

17. Deputy SHPO - Roger Roper - Utah State Historical Society - Salt Lake City, UT - electronic mail

18. Deputy SHPO - Jim Dykman - Utah State Historical Society - Salt Lake City, UT - electronic mail

19. SHPO - James Garrison - Arizona State Parks - Phoenix, AZ - electronic mail

If you are proposing to construct a facility in the State of Alaska, you should contact Commission staff for guidance regarding your obligations in the event that Tribes do not respond to this notification within a reasonable time.

Please be advised that the FCC cannot guarantee that the contact(s) listed above opened and reviewed an electronic or regular mail notification. The following information relating to the proposed tower was forwarded to the person(s) listed above:

Notification Received: 12/02/2009

Notification ID: 58600

Tower Owner Individual or Entity Name: City of Phoenix

Consultant Name:

Letter to *City of Phoenix*

Date: 12/11/2009

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P.O. Box:

Street Address: 2441 S. 22nd Ave

City: Phoenix

State: AZ

Zip Code: 85009

Phone: 602-262-7034

Email: Stuart.snow@phoenix.gov

Structure Type: UTOWER - Unguyed - Free Standing Tower

Latitude: 33 deg 20 min 5.2 sec N

Longitude: 112 deg 3 min 34.5 sec W

Location Description: Site No. 1 Mt. Suppoa

City: Phoenix

State: ARIZONA

County: MARICOPA

Ground Elevation: 781.0 meters

Support Structure: 76.2 meters above ground level

Overall Structure: 76.2 meters above ground level

Overall Height AMSL: 857.2 meters above sea level

If you have any questions or comments regarding this notice, please contact the FCC using the electronic mail form located on the FCC's website at:

<http://wireless.fcc.gov/outreach/notification/contact-fcc.html>.

You may also call the FCC Support Center at (877) 480-3201 (TTY 717-338-2824). To provide quality service and ensure security, all telephone calls are recorded.

Thank you,

Federal Communications Commission



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The replies for Notification ID 58600 are shown.

Reply Information

Reply Date: **12/23/2009**

Name of Replier: **Caroline Antone, Ak Chin Indian Community Council**

Message

We have no interest in this site. However, if the Applicant discovers archaeological remains or resources during construction, the Applicant should immediately stop construction and notify the appropriate Federal Agency and the Tribe.

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The replies for Notification ID 58600 are shown.

Reply Information

Reply Date: **12/22/2009**

Name of Replier: **Barnaby V Lewis, Gila River Indian Community**

Message

The Gila River Indian Community Cultural Resource Specialist Office requests additional information (detailed legal description, cultural resource survey report, specific information detailing proposed work with specific details regarding type and description of construction of structure, ground disturbing activities at the site location, & detailed maps) in order to provide a finding of effect for this proposed undertaking. Please reference this TCNS number on all pieces of information submitted for review. Please contact Barnaby V. Lewis, Gila River Indian Community Tribal Historic Preservation Officer at 520-562-7152 with questions or comments or e-mail him at barnaby.lewis@gric.nsn.us. The Gila River Indian Community strives to reply to every notification, so if you do not receive a response within 30 days of receipt of additional information please contact our offices. As a responder to the FCC 106 Consultations on behalf of Mr. Lewis please reply to my e-mail address at catherine.thomas@gric.nsn.us.

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The replies for Notification ID 58600 are shown.

Reply Information

Reply Date: **12/22/2009**

Name of Replier: **Holly Houghten, Mescalero Apache Tribe**

Message

We have no interest in this site. However, if the Applicant discovers archaeological remains or resources during construction, the Applicant should immediately stop construction and notify the appropriate Federal Agency and the Tribe.

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The replies for Notification ID 58600 are shown.

Reply Information

Reply Date: **12/15/2009**

Name of Replier: **Kenny Bowekaty, Pueblo of Zuni**

Message

We have no interest in this site. However, if the Applicant discovers archaeological remains or resources during construction, the Applicant should immediately stop construction and notify the appropriate Federal Agency and the Tribe.

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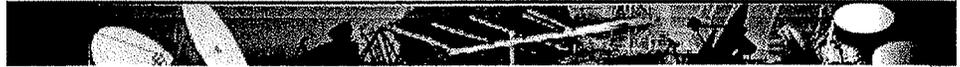
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The replies for Notification ID 58600 are shown.

Reply Information

Reply Date: **12/28/2009**

Name of Replier: **Wally Davis, Tonto Apache Tribal Council**

Message

The Tonto Apache Tribe Has No Interest In These Sites Thank You !!!!!

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The replies for Notification ID 58600 are shown.

Reply Information

Reply Date: **12/14/2009**

Name of Replier: **Greg Glassco, Yavapai-Prescott Indian Tribe**

Message

The Yavapai-Prescott Indian Tribe wishes to defer to the Four Southern Tribes for TCNS 58600.

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APPENDIX F

FEDERAL AVIATION ADMINISTRATION DETERMINATION OF NO HAZARD



Issued Date: 06/25/2009

Stuart Snow
City of Phoenix
2441 S. 22nd Ave
Phoenix, AZ 85009

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Antenna Tower / Valmont 250' lattice tower
Location: Phoenix, AZ
Latitude: 33-20-05.20N NAD 83
Longitude: 112-03-34.50W
Heights: 250 feet above ground level (AGL)
2812 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be completed and returned to this office any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part I)
 Within 5 days after the construction reaches its greatest height (7460-2, Part II)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 12/25/2010 unless:

- (a) extended, revised or terminated by the issuing office.
- (b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE POSTMARKED OR DELIVERED TO THIS OFFICE AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission if the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (907) 271-5863. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2009-AWP-2560-OE.

Signature Control No: 635597-109842439

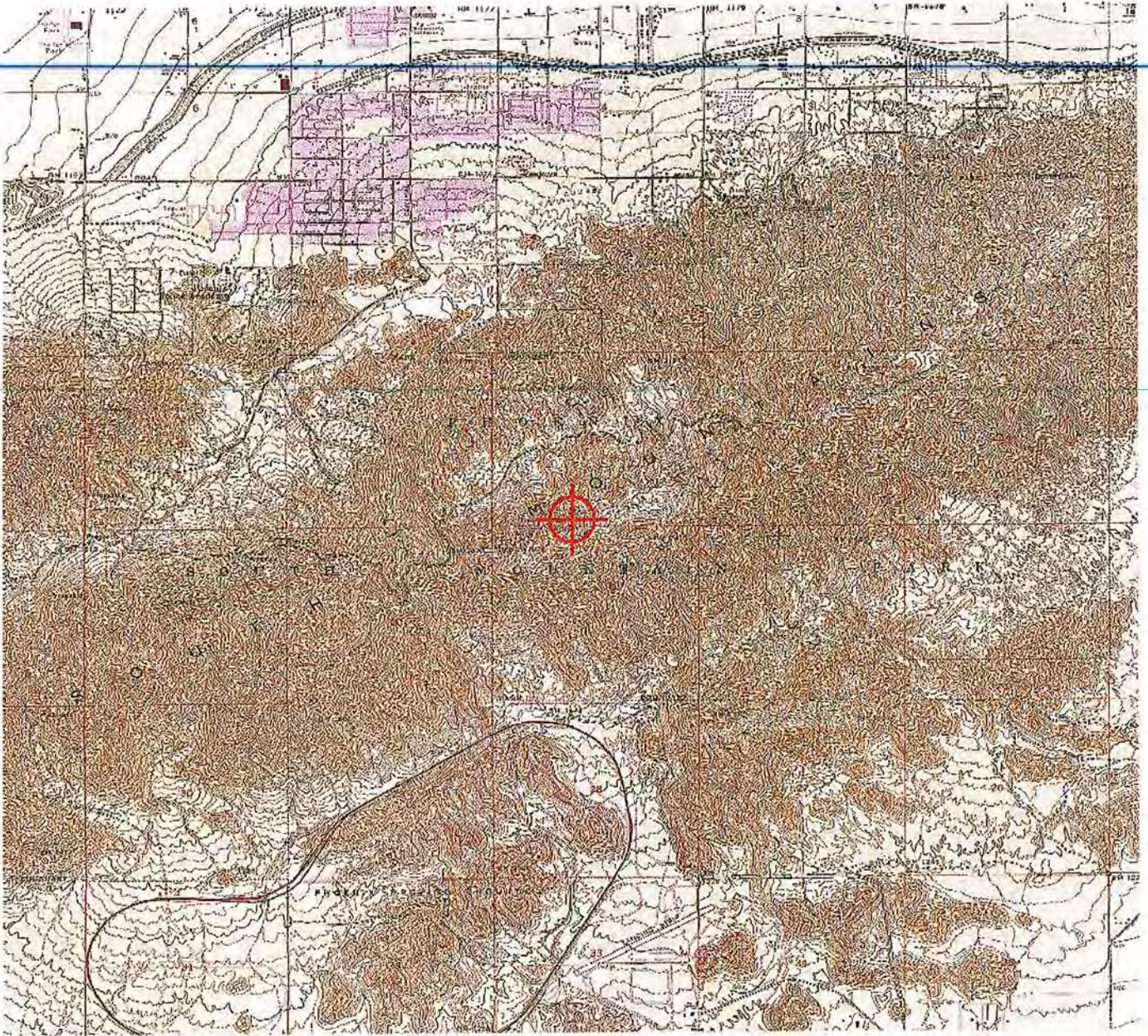
Robert van Haastert
Specialist

(DNE)

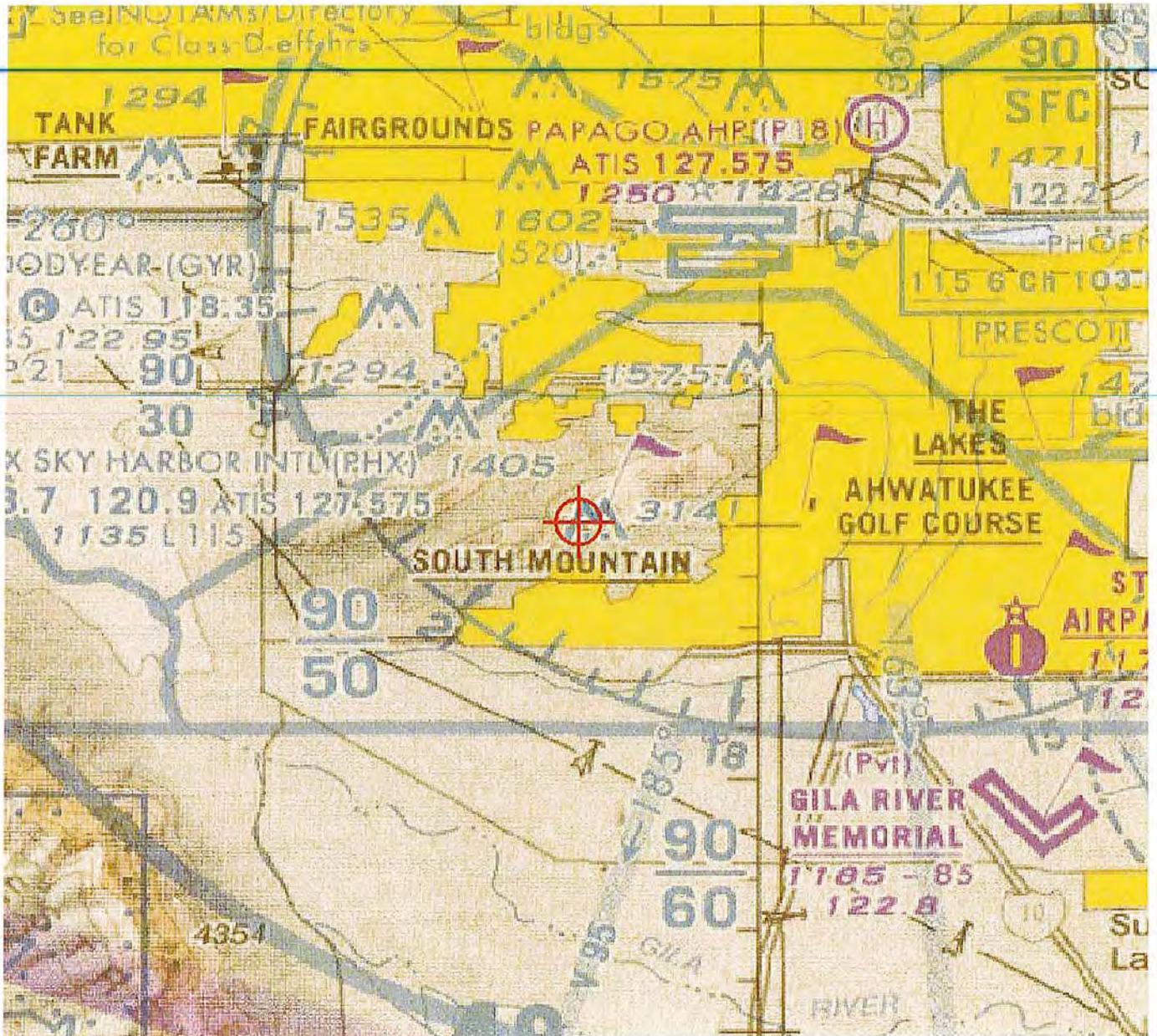
Attachment(s)

Map(s)

TOPO Map for ASN 2009-AWP-2560-OE



Sectional Map for ASN 2009-AWP-2560-OE



APPENDIX G
FCC NEPA SCREEN CHECKLIST

FCC NEPA SCREEN CHECKLIST

SITE NAME: Site No. 1 Mt. Suppoa South Mountain Park, Phoenix, Arizona	PROJECT OR SITE ID:	MARKET:
NEPA THRESHOLD	REFERENCE	CHECK YES OR NO
47 CFR 1.1307(a)(1) Wilderness Area Is the proposed facility located in an officially designated wilderness area?	National Park Service, U.S. Forest Service, Bureau of Land Management	Yes No X
47 CFR 1.1307(a)(2) Wildlife Preserve Is the proposed facility located in an officially designated wildlife preserve?	U.S. Fish and Wildlife Service	Yes No X
47 CFR 1.1307(a)(3) Threatened and Endangered Species Will the proposed facility likely affect threatened or endangered species or designated/proposed critical habitats or are they likely to jeopardize the continued existence of any proposed endangered or threatened species?	U.S. Fish and Wildlife Service	Yes No X
47 CFR 1.1307(a)(4) National Register of Historic Places Will the facility affect districts, sites, buildings, structures or objects significant in American history, architecture, archeology, engineering or culture, that are listed (or eligible for listing) in the National Register of Historic Places?	State Historic Preservation Office	Yes No X
47 CFR 1.1307(a)(5) Indian Religious Sites Will the facility affect Indian religious site(s)?	American Indian Tribes	Yes No X
47 CFR 1.1307(a)(6) Floodplain Is the facility located in a floodplain?	Federal Emergency Management Agency	Yes No X
47 CFR 1.1307(a)(7) Surface Features Will the construction of the proposed facility involve significant change in surface features (e.g., wetland fill, deforestation or water diversion)?	U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers	Yes No X
47 CFR 1.1307(a)(8) High Intensity White Lights Is the proposed facility located in a residential neighborhood as defined by local zoning law and is required to be equipped with high intensity white lights?	Federal Aviation Administration and Local Zoning	Yes No X
47 CFR 1.1307(b) Radio Frequency Exposure Will the facility, operation or transmitter equal or exceed radio frequency human exposure limits?	City of Phoenix	Yes No X
<i>The undersigned has reviewed and approved the completion of this NEPA checklist for the above referenced site.</i>		
Environmental Consultant Signature: <u>Bill Jackson</u> Date: <u>April 13, 2010</u>		