



ENVIRONMENTAL ASSESSMENT

**INSTALLATION OF
COMMUNICATIONS TOWER IN
BERRIEN COUNTY –
BERRIEN COUNTY SHERIFF'S
DEPARTMENT
(CITY OF ST. JOSEPH, MICHIGAN)**

**AREA WIDE RADIO TOWER SYSTEM
MOTOROLA, INC.
COUNTY OF BERRIEN, MICHIGAN**

Prepared for
U.S. Department of Commerce
National Telecommunications and Information Administration

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1.0 INTRODUCTION

1.1 Project Authority

Funding for this project is provided by the Department of Commerce (DOC) (CFDA# 11.555, Federal Pass-Thru #2007-GS-H7-0043, Recipient Grant Agreement CDFR# 11.555 2007-GS-H7-0043, Public Law # 109-171) in the amount of \$1,300,000.00. This federal grant was awarded to the County of Berrien, utilizing the Michigan Department of State Police Emergency Management and Homeland Security Division as a pass-through. The grant will allow Berrien County to join Michigan Public Safety Communication System (MPSCS), provide equipment and tools necessary to improve the coordination and response efforts of emergency first responders, and improve preparedness for homeland security.

In accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) regulations implementing that NEPA [Title 40 Code of Federal Regulations (CRF) Parts 1500 through 1508], and FEMA regulations for NEPA compliance (44 CFR Part 10), FEMA must fully consider the potential environmental impacts of the proposed project. The President's CEQ has developed regulations for implementing the NEPA. The federal regulations set forth in 40 CFR Parts 1500-1508 require an evaluation of the proposed action and alternatives. The required evaluation is provided in this Environmental Assessment (EA). A second purpose of this EA is to determine whether the preparation of a Finding of No Significant Impact (FONSI) or an Environmental Impact Statement (EIS) should be the subsequent step in fulfilling the NEPA process.

1.2 Project Location

The Preferred Alternative project site is located on a parcel of land occupied by the Berrien County Sheriff's Department (a.k.a. the Berrien County Jail, and for the purpose of this assessment, the parent parcel) located at 919 Port Street in the City of St. Joseph, Berrien County, Michigan. The site is located approximately 20-feet northwest of the existing facility building in an area consisting of manicured land. Refer to Appendix A for maps indicating the project location.

The parent parcel of land that contains the Preferred Alternative consists of approximately 96,703 square-feet and is identified by the City of St. Joseph by Parcel Identification Number 11-76-0340-0224-02-9. Latitude and longitude for the site were identified as 42° 06' 36.5" north and the longitude is 86° 28' 34.4" west, and shown on United States Geological Survey (USGS) 1970, photorevised 1980, Benton Harbor, Michigan, 7.5 Minute Series (Topographic) map. The proposed project area shares the same address as the parent parcel. The facility occupying the parent parcel is a part of the Berrien County Sheriff's Department where law enforcement operations and correctional operations occur (including prisoner housing). A telecommunications tower and associated equipment are located at the parent parcel approximately 150' south/southwest of the proposed project area.

The parent parcel is located in the City of St. Joseph in Berrien County in southwestern Michigan and is bordered by Lake Michigan to the West, The City of Benton Harbor to the north and east and St. Joseph Township to the south. Berrien County is bordered by Lake Michigan to the west, Van Buren County to the north and west, Cass County to the west and the Counties of LaPorte and St. Joseph within the State of Indiana.

The Preferred Alternative project area is located within the City of St. Joseph and is adjacent to the City of Benton Harbor. According to the US Census data, the population of St. Joseph is approximately 8,789 people, the population of Benton Harbor is approximately 11,182 and the population of Berrien County is approximately 162,453.

1.3 Purpose and Need

The objective of the Public Safety Interoperable Grant (PSIC), administered by the National Telecommunications and Information System Administration (NTIA) of the U.S. Department of Commerce is to provide interoperability and reliability in the nation's communications and information systems infrastructure among emergency first responders in order to reduce the impact in the event of natural disasters or to respond in a timely manner to Homeland Security events, and to assist the community in recovering from the impact of such events. During an event that requires multiple agency response, the current system is overloaded as priority situations are shared with non-priority situations.

In Berrien County, first responders across 39 municipalities currently operate on incompatible legacy voice communications systems. There is currently no MPSCS tower in the St. Joseph / Benton Harbor area; the closest one is at the Berrien County Road Commission Garage west of Coloma (approximately 12 miles northeast of the Berrien County Sherriff's Department site). The inability of our emergency first responders to readily communicate with one another threatens the public's safety and may result in unnecessary loss of property and lives. The purpose of this project is to find a permanent solution to link communications throughout Berrien County to better serve emergency services and the communities. After years of planning and evaluation by Berrien County to explore the availability of options to enhance the existing infrastructure, Berrien County concluded it must be able to not only communicate within its borders but it must put itself in a position to communicate with surrounding communities, and to communicate with the two nuclear plants (1 north and 1 south) and associated first responders in the event of an emergency or if there is ever a need for any type of evacuation.

The Tactical Interoperable Scorecard published by the U.S. Department of Homeland Security assesses the maturity of tactical interoperable communication capabilities in 75 urban metropolitan areas throughout the country; the only area assessed within the state of Michigan was the Detroit Metropolitan Area. None the less, this project is necessary to allow the St. Joseph/ Benton Harbor Area public safety agencies and service agencies to communicate within and across agencies and jurisdiction via radio and associated communications systems, exchange voice, data and/or video with one another on demand, in real time, when needed, and when authorized.

Emergencies do not confine themselves to jurisdictional borders and the sharing of resources is made more effective when cooperative efforts are possible through the simple act of communicating. With its nearby nuclear power plants (Bridgeman and Palisades located 11 miles south and 20 mile north, respectively), interstate highway systems, airports, international port and waterways, Berrien County is a critical link in the region and recognizes its responsibility to facilitate emergency responses to border jurisdictions and across state lines.

The Council on Environmental Quality (CEQ) has developed regulations for implementing the NEPA. These federal regulations set forth in accordance with federal laws and DOC regulations, the EA process for a proposed federal action must include an evaluation of alternative and a discussion of the potential environment impacts. This EA was prepared in accordance with DOC's regulations as required under the NEPA. As part of this NEPA review, the requirements of other environmental laws and executive orders are addressed.

1.4 Existing Facility

The proposed project area is located on a parent parcel of land that is occupied by the Berrien County Sherriff's Department; a County law enforcement agency and detention/corrections center. The parent parcel consists of approximately 96,703 square-feet and is identified by Parcel Identification Number 11-76-0340-0224-02-9. The proposed project area shares the same address as the parent parcel (919 Port

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Street, St. Joseph, Michigan). The proposed project area is located approximately 20 feet northeast of the Sherriff's Department building. An existing 250' self supporting lattice telecommunications tower owned by the county that is located approximately 150' south/southwest of the proposed project area on the parent parcel. Refer to Appendix A for the project plans and photographs of the site.

2.0 ALTERNATIVE ANALYSIS

The identification, consideration, and analysis of alternative are integral to objective decision making and are central to the NEPA process. Four alternatives, including the No Action Alternative, are proposed for evaluation in meeting the purpose and need. Each alternative would implement the project types differently, however all alternatives are proposed as a way to meet the specific interoperability needs of the County. These Alternatives, as well as other alternatives that were considered are discussed below. Refer to Appendix A for photographs of the Preferred Alternative, Alternative 2 and Alternative 3.

2.1 No Action Alternative

Under the No Action Alternative, the county would not prepare for disaster or homeland security event and would not provide communication interoperability for the entire public safety community. The No Action Alternative would entail no construction activity, no new facility, equipment, etc. The No Action Alternative would defeat the intention to communicate with the two nuclear plants (1 north and 1 south) and associated first responders in the event of an emergency or if there is ever a need for any type of evacuation. This project is necessary to allow the Berrien public safety agencies and service agencies to communicate within and across agencies and jurisdiction via radio and associated communications systems, exchange voice, data and/or video with one another on demand, in real time, when needed, and when authorized. In Berrien County, first responders across 39 municipalities currently operate incompatible legacy voice communications systems. The inability of our emergency first responders to readily communicate with one another threatens the public's safety and may result in unnecessary loss of property and lives. After years of planning and evaluation by Berrien County to explore the availability of options to enhance the existing infrastructure, Berrien County concluded it must be able to not only communicate within its borders but it must put itself in a position to communicate with surrounding communities. Under the No Action Alternative, the inability of emergency first responders to readily communicate with one another threatens the public's safety and may result in unnecessary loss of property and lives.

2.2 Alternative 1 – (Preferred Alternative)

Berrien County Sherriff's Department (Proposed Action): construction of a public safety communications tower and compound on land owned by the County of Berrien, Michigan at 919 Port Street in the City of St. Joseph.

The tower proposed for Alternative 1 (preferred action) will act as the hub or prime site. All the electrical needs are on-site, the security to protect from vandalism is on-site. This tower would replace a similar painted tower approximately 150' away. Moving too far from this spot in any direction would defeat the intention to communicate with the two nuclear plants (1 north and 1 south) in case there is ever a need for any type of evacuation necessary. The goal is to improve communications interoperability, for any potential emergency operation (like evacuations) that may be required involving public-safety entities within the Emergency Planning Zones of the DC Cook Nuclear plant (Bridgman) and Palisades Nuclear Plant (Covert). The replacement of the tower in St Joseph will allow enhanced radio signal coverage of the Michigan Public Safety Communications System (MPSCS) in both zones, and by use of its channel trunking capabilities, improve coordination between effected communities.

Additionally, this alternative provides improved portable radio coverage on a system with interoperable communications capabilities that will now be available to the urban/suburban populations in and around St Joseph and Benton Harbor.

The construction of Alternative 1: Preferred Alternative would entail the construction of a 265' self supporting lattice communications tower, within an approximately 29.5 feet by approximately 28.0 feet by approximately 4 feet by approximately 27.0 feet fenced lease area. Equipment is to be located within an existing room in the north part of the Berrien County Sherriff's Department Building with underground utility routing from the equipment room in the existing building to run under an existing drive to the proposed tower via an approximately six inch by two inch coax cable.

Additionally, a 75KVA transformer, two UPS panels, an equipment rack and a distribution panel are proposed to be situated within the existing building. Access is planned via an existing adjacent paved parking lot and drive. Subsequent to the tower's construction, fourteen side arm-mounted communications antennas (eight omni and six dipole antennas) will be attached to the tower and three standard microwave dishes (one 2'-dish and two 3'-dishes) will be installed on the tower.

The Sherriff's Department building was constructed in 1951 and is located approximately 20 feet from the proposed tower. The area immediately surrounding the site is comprised of modern day structures and parking lots (1950 or newer) and the Morrison Channel that connects the St. Joseph River with Lake Michigan. The structures in the surrounding community were developed between approximately 1869 and the 1960's with the bulk of the structures ranging from the 1890's through 1930's.

The proposed construction area encompasses approximately 371 square-feet of land that currently consists of previously disturbed maintained lawn for the tower compound and approximately 300 feet of land disturbance beneath an existing concrete drive for underground routing from proposed equipment room to proposed lattice tower (~ 671square feet in total). Proposed site plans depicting the layout of the proposed communications compound, as well as other project specifications are included in Appendix A.

Construction equipment scheduled to be used on the site is typical of equipment used on all communication facility construction. Equipment to be used is as follows: a small front end loader / bulldozer (Bobcat or equivalent manufacturer), a mini- excavator (Trackhoe), concrete trucks, a boom truck (used to assist with off-loading of the tower and other lifting needs), a crane (tower erection), construction trucks and trailers used to transport crew members and equipment, and various gasoline and electric powered hand tools used by construction crew members. The staging area for the construction of the site will be in the immediate vicinity of the proposed tower compound, as the site is located adjacent to a municipal parking lot with plenty of space for equipment and material delivery and staging. Duration of construction will be approximately 60 to 75 days.

2.3 Alternative 2 – Existing Tower at Berrien County Sheriff's Department

The existing tower at Berrien County Sherriff's Department consists of a tower and compound on land owned by the County of Berrien, Michigan at 919 Port Street in the City of St. Joseph, approximately 100 feet from the Preferred Alternative location. The existing tower was determined to be unable to support the updated antennas and microwave dishes, thereby defeating the goal of better connectivity between emergency first responders or improving connection between the County Sheriff's dispatch and auto drivers, bicyclists, and pedestrians.

The existing tower is an approximately 250' in height, self-supporting lattice tower which was constructed in 1980 and not designed to bear the weight load associated with the installation of fourteen side arm-mounted communications antennas (eight omni and six dipole antennas) and three standard microwave dishes (one 2'-dish and two 3'-dishes). The existing equipment is sheltered within the existing Sherriff's Department building. If this alternative was implemented it would entail tower re-enforcement in order to bear the weight of the collocation of the antennas that will be attached to the tower and microwave dishes will be installed on the tower, as well as the necessary coaxial cables.

However, coverage from this existing tower site was determined to be reduced as compared to that provided by the new replacement tower design at the Berrien County Sherriff's Department and results in a reduction of the system's overall coverage reliability.

Furthermore, the increased structural load which would result from the tower reinforcement and new antennas, dishes and coax, on the existing section of the tower as well as the tower's existing foundation, which was originally constructed for a 250' lattice tower in 1980, makes this alternative less and less feasible and more and more cost prohibitive. Feasibility is diminished as engineers try to balance structural strengthening of the existing tower sections by adding stiffening plates to the section in the overstressed areas. As the engineer increases the strength of the problem section, it also increases the surface area of the tower affected by wind loads. This increases stress even more and the engineering requires a cyclical trial and error through design, which all but eliminates this option as physically feasible. Additionally, the increased base reactions of a modified and extended tower with the new antennas and coax would be increased by a significantly large percentage, requiring a hefty foundation modification. The size and scope of the work required to increase the size of the foundation to resist the increased axial, shear and moment loads at the tower base would not only be cost prohibitive, but would also create a safety issue, as excavation around the tower's foundation would be necessary to conduct the work. Costs for this type and scope of tower strengthening and foundation modifications are extremely high and the overall site improvements generated are generally not considered an efficient use of site funding.

If this site was redeveloped, construction equipment scheduled to be used on the site is typical of equipment used on most communication facility construction. However, proposed plans include decommissioning the existing tower within 12 months of the construction of the proposed new tower. A neutral-colored 265' tower will be erected to replace the existing 250' red and white tower for less impact to the surrounding area. Equipment to be used is as follows: a small front end loader / bulldozer (Bobcat or equivalent manufacturer), a mini- excavator (Trackhoe), concrete trucks, a boom truck (used to assist with off-loading of the tower and other lifting needs), a crane (tower erection), construction trucks and trailers used to transport crew members and equipment, and various gasoline and electric powered hand tools used by construction crew members. The staging area for the construction of the site will be in the municipal Sherriff's Department parking lot in the immediate vicinity of the tower compound, inside the substation as space permits. Duration of construction will be approximately 60 to 75 days.

2.4 Alternative 3 – Benton Harbor Water Tower at 8th and Britain

The water tower is approximately 180' in height and approximately 80' in diameter. The tower is supported by ten legs and has a footprint of approximately 60' in diameter beneath the water tower, which houses the existing telecommunications compound. The existing equipment shelter, located within the compound, is comprised of a pre-fabricated plastic storage shed, with radios installed inside. There are already two antennas currently installed on the water tower. Antennas for the 800 MHz public safety communications system require a minimum of 40 feet (clear) vertical tower space, plus vertical isolation from the cellular antennas. It is not feasible to extend the water an additional 80' in order to accommodate the necessary antennas for this project. Because the existing shed is inadequate to support the required radio equipment (size and construction material), an 11'-8" x 16'-6" shelter would be required to house the equipment. Additionally, a 50 kW generator and a 1000 gallon propane tank would be required for emergency backup power. There is inadequate space inside the existing compound to support this new infrastructure.

The minimum footprint necessary would be approximately 100' in diameter, increasing the size of the compound significantly by 40' in diameter, and therefore, additional fence line would needed to allow expansion beyond the current water tower confines. Bumping out the compound by 20' on the water

tower's roadside would put the compound too close to the roadways and in the right of ways. Therefore, there appears to be inadequate space on the property outside of the fence to propose a compound expansion to support the infrastructure. Additionally, this site is also very close to dense residential and low income housing areas to the north, east and south.

Finally, coverage from collocating at this site was determined to be significantly reduced as compared to that provided by the Preferred Alternative tower design at the Berrien County Sheriff's Department and was determined to result in a reduction of the system's overall coverage reliability.

If this site was collocated on, construction equipment scheduled to be used on the site is typical of equipment used on most communication facility construction. Equipment to be used is as follows: a small front end loader / bulldozer (Bobcat or equivalent manufacturer), a mini- excavator (Trackhoe), concrete trucks, a boom truck (used to assist with off-loading of the tower and other lifting needs), a crane (tower erection), construction trucks and trailers used to transport crew members and equipment, and various gasoline and electric powered hand tools used by construction crew members. The staging area for the construction of the site will be inside the tower compound and in the immediate vicinity of the tower compound, inside the substation as space permits. Duration of construction will be approximately 60 to 75 days.

2.5 Alternatives Considered and Eliminated from Further Consideration

Other alternatives considered and eliminated from further consideration include collocations at the following existing tower sites:

Nextel (registration 1220629) Graham Avenue, Benton Harbor:

This site would require the construction of a new telecommunications tower and compound similar to the tower and compound proposed in the Preferred Alternative. However, if developed, due to its location, coverage at this site was determined to be significantly reduced as compared to that provided by the Preferred Alternative tower design at the Berrien County Sheriff's Department and results in a reduction of the system's overall coverage reliability. This site is located within a 100-year flood plain and is located < 250' east of the Paw Paw River and would require additional building and engineering considerations. This site's location in a floodplain the tower and compound have the potential to flood, thereby limiting access during times of emergency and so was never constructed. Therefore, based on the Based the reduced coverage and location, this site was deemed not feasible for development and is not carried forward for further analysis in this document.

U.S. Cellular Monopole Tower at 455 Bond Street, Benton Harbor:

This existing tower consists of an approximately 195' monopole, with an approximately 80' x 80' telecommunications compound. The existing equipment is sheltered in an approximately 12' x 20' equipment shelter building. Antennas for the 800 MHz public safety communications system require a minimum of 40 feet (clear) vertical tower space, plus vertical isolation from the cellular antennas. The project would require the addition of an approximately 11' 8" x 16' 6" shelter (vs. the existing building which offers inadequate space for the necessary equipment). Additionally, a 50kW generator and 1,000-gallon propane tank would be required for emergency backup power.

Coverage from collocating at this site was determined to be significantly reduced as compared to that provided by the Preferred Alternative tower design at the Berrien County Sheriff's Department and was determined to result in a reduction of the system's overall coverage reliability. Therefore, this site was eliminated, as it was determined that it was not feasible to extend the monopole an additional 70' in order

to accommodate the necessary antennas for this project for inadequate coverage and is not carried forward for further analysis in this document.

The two aforementioned alternatives have been considered and eliminated for further consideration as they were deemed not sufficient to provide the desired overall coverage area. Further, overall, based on program criteria, these dismissed alternatives were determined to be cost prohibitive.

3.0 AFFECTED ENVIRONMENTAL AND ENVIRONMENTAL CONSEQUENCES

3.1 PHYSICAL ENVIRONMENT

3.1.1 Geology, Seismicity and Soils

No geologic features that would affect the project were identified in the immediate vicinity.

The project elevation is 630.1 feet in National American Vertical Datum (NAVD 88) units.

Berrien County lies in an area of low seismic activity. According to the U.S. Geological Survey (USGS, PSHA Model) Berrien County lies in an area with a 2 -3 percent probability of an earthquake with a magnitude greater to or equal to 4.75 within 200 years and 50 kilometers. Historically, there have been approximately six earthquakes with magnitudes between 0.5 and 4.7, between 1793 and 2001, in the southern portion of Michigan's Lower Peninsula. Two have occurred in the vicinity of the project; the first in Niles, Michigan in 1883 and the second in St. Joseph Michigan in 1899. Refer to the USGS Seismic Hazard Map in Appendix A. Therefore, Executive Order (EO) 12699, Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction does not appear to apply.

Project Alternatives 1, 2 and 3 are situated within a large regional structure composed of a stratified sequence of bedrock consisting of the Michigan formation of the Osagean and Kinderhookian Series, Mississippian System, Paleozoic Era. The subsurface geology of Alternatives 1, 2 and 3 is reported as predominately consisting of lacustrine sand and gravel, pale brown to pale reddish brown, fine to medium sand, commonly including beds or lenses of small gravel, chiefly quartz sand, but gravel is rich in igneous and metamorphic rocks. This matrix occurs chiefly as former beach and near offshore littoral deposits of glacial Great Lakes, and may include intercalated lacustrine clay. The matrix is locally veneered by discontinuous sheets or small dunes of eolian sand and may include considerable areas of organic soils.

The United States Department of Agriculture's (USDA's), Natural Resources Conservation Service, Web Soil Survey of Berrien County, Michigan indicates Alternatives 1 and 2 are located in an area characterized as urban land, which is covered with streets, parking lots, buildings, and other structures that so obscure or alter the soils that identification of the soil is not feasible. Refer to Soil Survey Map in Appendix A.

The Web Soil Survey of Berrien County, Michigan indicates that Alternative 3 is located in an area reported to consist of Cohoctah-Urban Land. The Cohoctah series consists of very deep, poorly drained or very poorly drained soils formed in loamy alluvial deposits on flood plains. Permeability is moderately rapid. Slope ranges from 0 to 2 percent. Urban land is land covered with streets, parking lots, buildings, and other structures that so obscure or alter the soils that identification of the soil is not feasible.

The Farmland Protection Policy Act (FPPA) was enacted in 1981 (P.L. 97-98, Sec. 1539-1549; 7 U.S.C. 42091, et seq.), which state that federal agencies must "minimize the unnecessary conversion of farmland to non-agricultural uses" was considered in this EA. The Natural Resources Conservation Service (NRCS) is responsible for protecting significant agricultural lands from irreversible conversions that result in the loss of an essential food or environmental resources. Based upon consultation with Mr. Bruce Green of the Berrien Springs Field Office of the NRCS, the project alternatives are not located in nor will they affect designated prime and unique farmlands. Therefore, the requirements of the Farmland Policy Act (7 CFR 4201) have been satisfied. A Record of Communication (ROC) containing the NRCS consultation is included in Appendix C.

No Action Alternative

No impact on the geology, seismicity, or soils of the site would occur under the No Preferred Alternative.

Alternative 1: Preferred Alternative – Berrien county Sherriff’s Department (Proposed Action)

Impacts to geology or soils are anticipated under the Preferred Alternative. The construction of the Preferred Alternative would disturb approximately 671 square-feet of soil at the proposed tower compound and along the proposed trenching lines for underground routing of power and Telco lines to the equipment shelter.

Construction would increase the potential for soil loss due to erosion; however, swales and silt fences would be constructed prior to ground disturbances occurring to control soil erosion during construction. After construction, the site will be covered with gravel, and any remaining exposed soil would be seeded and mulched shortly after disturbance, which would help prevent soil erosion. Depth of excavation for the tower foundation is estimated at up to 60 feet. Spoils from the tower foundation drilling would be hauled off site and disposed of at an appropriate facility. The remaining construction of the site would not excavate deeper than 48 inches for conduit or shelter foundation trenching and fence posts. Spoils from this excavation will be used to backfill the trenches and to slightly “build up” the grade of the tower compound (not more than 6 inches) from the existing grade. Soils stored on site before haul-off, backfill or redistribution on site will be covered to avoid any soil runoff due to precipitation during the construction process. Any minor amount of soil remaining will be disposed of in a proper manner and hauled to a facility that is authorized to accept this soil.

No soils investigation was conducted at the Preferred Alternative site, except for shovel tests dug during the Archeological Survey that is included in Appendix F. Shovel tests holes (~35 cm x 35cm) dug at the proposed project site at intervals of ten meters along transects spaced 10 meters apart and access road indicated that the soils consisted of a mixture of various shades of brown, yellowish brown, grayish brown and gray clay, clay loam, and loam mixed with gravel, indicating fill dirt.

However, ATC’s Phase I ESA, included in Appendix F, was prepared for the Preferred Alternative and discusses a subsurface investigation conducted on the parent parcel associated with the removal of four heating oil USTs located adjacent to the northeastern exterior of the Sherriff’s Department building. According to the boring logs from this investigation, soils encountered in close proximity to the proposed site were as follows: from 0-3’ below ground surface (bgs) fill was encountered, 3-5’ bgs brown clay followed by 5-6.5’ bgs brown silt, followed by 6.5-8.5’ bgs brown clay, followed by 8.5-9.5’ bgs reddish brown sand, followed by 9.5-13’ bgs gray clay, followed by 13-14’ bgs sand, followed by 14-17’ bgs gray clay, followed by 17-17.25’ bgs dry sand, and followed by 17.25-24’ bgs gray clay.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

Impacts to geology or soils are anticipated under Alternative 2. The construction of this Alternative would disturb approximately 600 square-feet of soil at the existing tower including trenching lines for underground routing of power and Telco lines to the existing equipment room located within the existing Sherriff’s Department building. The existing tower is located in an existing paved parking lot. Construction would increase the potential for soil loss due to erosion; however, silt fences would be constructed to control soil erosion around the limited area of construction during construction. After construction, the site will be covered with gravel, and any remaining exposed soil would be seeded and mulched shortly after disturbance, which would help prevent soil erosion. The remaining construction of the site would not excavate deeper than 36 inches for conduit or shelter foundation trenching. Spoils from this excavation will be used to backfill the trenches or hauled off site. Soils stored on-site before haul-off

or backfill will be covered to avoid any soil runoff due to precipitation during the construction process. Any minor amount of soil remaining will be disposed of in a proper manner and hauled to a facility that is authorized to accept this soil.

No soils investigation was conducted at this site, and no current environmental assessment was available for the existing telecommunications compound. However, during the site reconnaissance to evaluate the feasibility of this alternative, no visual indication of soil contamination (i.e. staining, leakage, odors) was observed.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

Impacts to geology or soils are anticipated under Alternative 3. The construction of this Alternative would disturb approximately 1,800 square-feet of soil at the existing water tower, including excavation for a proposed equipment shelter, trenching lines for underground routing of power and Telco lines to the proposed equipment shelter.

Construction would increase the potential for soil loss due to erosion; however, swales and silt fences would be constructed prior to ground disturbances occurring to control soil erosion during construction. After construction, the site will be covered with gravel, and any remaining exposed soil would be seeded and mulched shortly after disturbance, which would help prevent soil erosion. The construction of the site would not excavate deeper than 48 inches for conduit or shelter foundation trenching and fence posts. Spoils from this excavation will be used to backfill the trenches and to slightly “build up” the grade of the tower compound (not more than 6 inches) from the existing grade. Soils stored on site before haul-off, backfill or redistribution on site will be covered to avoid any soil runoff due to precipitation during the construction process. Any minor amount of soil remaining will be disposed of in a proper manner and hauled to a facility that is authorized to accept this soil.

No soils investigation was conducted at this site, and no current environmental assessment was available for the existing telecommunications compound. However, during the site reconnaissance to evaluate the feasibility of this alternative, no visual indication of soil contamination (i.e. staining, leakage, odors) was observed.

3.1.2 Water Resources and Water Quality

The EPA’s Watershed Assessment, Tracking and Environmental Results Database characterizes the condition and vulnerability of aquatic systems in each of the watersheds in the United States. The St. Joseph Watershed, located in the southwest lower peninsula of Michigan, is the third largest water basin within the state of Michigan. The indicators (not specified) of the condition of the watershed are scored and assigned to one of three categories: good water quality, threatened water quality with less serious problems, and impaired water quality with more serious problems. The St. Joseph Watershed characterization is indicated to have an impaired quality status and has been identified by the U.S. EPA as the biggest contributor of atrazine (a chlorinated herbicide) to Lake Michigan and a significant contributor of mercury and polychlorinated biphenyl (PCB).

A site visit conducted on May 6, 2009 did not indicate any evidence of stressed vegetation, discolored soils or surface water, pits, ponds, lagoons, or fill ports and/or vent pipes associated with underground storage tanks, drums, debris piles, or areas of borrow or fill in the vicinity of the Preferred Alternative. Storm water runoff appears to flow in a north/northeasterly direction toward the Morrison Channel, located approximately 150’ to the north/northeast of the proposed Preferred Alternative that discharges into Lake Michigan, approximately 2,500’ to the west. The channel drains into the St. Joseph River. No requirement for a National Pollution Discharge Elimination System (NPDES) permit has been identified.

The Preferred Alternative 1 and Alternative 2 project areas are located within the St. Joseph Watershed which flows into Lake Michigan. The Preferred Alternative is located near to the Morrison Channel, a man made waterway, approximately 150' away, that feeds the St. Joseph River (Figure 3), approximately 275 feet away. Alternative 2 is located approximately Pier 33, located on the Morrison Channel is one of the St. Joseph area's full service marinas, featuring over 200 deep-water docks with direct access to Lake Michigan. Pier 33's servicing capabilities include performing a full range of marine repairs, diesel & gasoline sales, waste pump-out station and transient dockage. This man made channel is reported by the EPA to be moderately polluted. The channel is not a source of drinking water and is not used for agricultural, industrial or environmental activities, and therefore, does not appear to be a valuable resource.

The Alternative 3 project area at the Benton Harbor water tower site is similarly located within the St. Joseph Watershed. The closest water body is wetland area with a lake approximately 500' southwest that drains into the St. Joseph River located approximately 1,800' to the west of this alternative. Therefore, no water bodies are present in the immediate vicinity of this alternative.

Information provided by Mr. Bruce Green, of the NRCS indicates that storm water at the project area percolates into the ground surface or flows overland due to grade and flows into the water shed via the St. Joseph River (including the Morrison Channel) where it is discharges into Lake Michigan, approximately 2,500' feet to the west. Refer to the NRCS ROC located in Appendix C. The aquifer in the area is characterized as an unconfined glacial drift aquifer. The surface geology and water table aquifer are composed of permeable, coarse grained glacial deposits that allow unrestricted infiltration and groundwater flow. Potable water is provided by the City of St. Joseph.

No Action Alternative

No impact on the water surface or groundwater resources of the site would occur if no project action is taken.

Alternative 1 - Preferred Alternative – Berrien county Sherriff's Department (Proposed Action)

Impacts water resources and water quality in the vicinity of the project are expected to be minor and short term, limited to the duration of the project construction and will have no significant impact. Every effort will be made to minimize impacts by controlling erosion and covering any exposed soil with mulch or another covering, as discussed above in Section 3.1.1. Therefore, long term impacts to water resources and water quality in the vicinity of the project area are not expected.

Alternative 2 – Existing Tower, Berrien County Sheriff's Department

Impacts water resources and water quality in the vicinity of the project are expected to be minor and short term, limited to the duration of the project construction. Every effort will be made to minimize impacts by controlling erosion and covering any exposed soil with mulch or another covering, as discussed above in Section 3.1.1. Therefore, long term impacts to water resources and water quality in the vicinity of the project area are not expected.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

Impacts water resources and water quality in the vicinity of the project are expected to be minor and short term, limited to the duration of the project construction. Every effort will be made to minimize impacts by controlling erosion and covering any exposed soil with mulch or another covering, as discussed above in Section 3.1.1. Since there are no water bodies in the immediate vicinity of this alternative (the St.

Joseph River is located approximately 2,000' west of this site), there appears to be a low potential for long-term effects to water resources in the project area. Therefore, long term impacts to water resources and water quality in the vicinity of the project area are not expected.

3.1.3 Floodplain Management (Executive Order 11988)

As part of an FCC/NEPA Environmental Compliance Checklist Report completed in October 2009, ATC reviewed the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) and the Flood Insurance Study for Berrien County Michigan, effective April 17, 2006, published by the Michigan Department of Environmental Quality (MDEQ), to obtain flood zone information for the project. A review of MDEQ information indicates that flooding sources for the City of St. Joseph included the Paw Paw River and the St. Joseph River. Flooding sources for the City of Benton Harbor include the Ox Creek, the Paw Paw River and the St. Joseph River. Based on a review of the FEMA FIRM and information provided by the MDEQ, the Berrien County Sherriff's Department site is not located in the annual 1% chance flood (100-year flood zone) or the annual 0.2% chance flood (500-year flood zone); therefore, the development of the site is not anticipated to affect a floodplain. The floodplain map is included in Appendix A. Neither the existing Berrien County Tower (Alternative 2) nor the Benton Harbor water tower sites (Alternative 3) are located in a floodplain. The NEPA Checklist is included in Appendix F.

No Action Alternative

No impact to floodplains is anticipated if no project action is taken.

Alternative 1 - Preferred Alternative– Berrien County Sherriff's Department

Since the Preferred Alternative site is not located in a floodplain, there would be no impacts to floodplains.

Alternative 2 – Existing Tower, Berrien County Sheriff's Department

Since the Alternative 2 site is not located in a floodplain, there would be no impacts to floodplains.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

Since the Alternative 3 site is not located in a floodplain, there would be no impacts to floodplains.

3.1.4 Air Quality

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

According to the 2007 Annual Air Quality Report published by the Michigan Department of Environmental Quality, Air Quality Division, Michigan is in attainment for four of the six criteria pollutants mandated by the EPA. The State of Michigan is in attainment for CO, Pb, SO₂ and NO₂. The

State of Michigan did not meet attainment for ozone or particulates. Berrien County is a designated nonattainment county for ozone; Berrien County last exceeded the NAAQS for Ozone in 2004 (EPA 2004c).

The only permits required for construction of this facility would be a building permit issued from the City of St. Joseph, along with an associated electrical permit.

No Action Alternative

No impact to air quality would occur if no project action is taken.

Alternative 1 - Preferred Alternative – Berrien County Sherriff’s Department (Proposed Action)

The construction of the Preferred Alternative would not adversely affect air quality in the long term at or near the project site. It appears that the project will have no significant long term impact on air quality in the area. The propane-fired emergency generator does not generate pollutants that significantly contribute to the degradation of the quality of air, and will be used in emergency situations only, when the main power source is not functioning. The generator will only remain in use until the primary power to the area is restored. However, temporary impacts to air quality from construction activities may result from airborne dust and diesel fuel emissions from bulldozers, cranes, drill rigs, concrete trucks, and other heavy equipment, and may temporarily increase pollutant levels. Dust emissions can vary greatly from day to day depending on the level of activity and the weather. To reduce temporary impacts to air quality, the applicant would be required to water down construction areas when necessary. To reduce the emission of criteria pollutants, fuel-burning equipment operations would be kept to a minimum.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

The construction of the Alternative 2 would not adversely affect air quality in the long term at or near the project site. The propane-fired emergency generator does not generate pollutants that significantly contribute to the degradation of the quality of air, and will be used in emergency situations only, when the main power source is not functioning. The generator will only remain in use until the primary power to the area is restored. However, temporary impacts to air quality from construction activities may result from airborne dust and diesel fuel emissions from bulldozers, cranes, drill rigs, concrete trucks, and other heavy equipment, and may temporarily increase pollutant levels. Dust emissions can vary greatly from day to day depending on the level of activity and the weather. To reduce temporary impacts to air quality, the applicant would be required to water down construction areas when necessary. To reduce the emission of criteria pollutants, fuel-burning equipment operations would be kept to a minimum.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

The construction of the Alternative 3 would not adversely affect air quality in the long term at or near the project site. The propane-fired emergency generator does not generate pollutants that significantly contribute to the degradation of the quality of air, and will be used in emergency situations only, when the main power source is not functioning. The generator will only remain in use until the primary power to the area is restored. However, temporary impacts to air quality from construction activities may result from airborne dust and diesel fuel emissions from bulldozers, cranes, drill rigs, concrete trucks, and other heavy equipment, and may temporarily increase pollutant levels. Dust emissions can vary greatly from day to day depending on the level of activity and the weather. To reduce temporary impacts to air quality, the applicant would be required to water down construction areas when necessary. To reduce the emission of criteria pollutants, fuel-burning equipment operations would be kept to a minimum.

3.1.5 Coastal Zone Management

The Coastal Zone Management Act of 1972 (CZMA) (16 U.S.C. S1452) provides States with the authority to determine whether activities of governmental agencies are consistent with federally approved State Coastal Zone Management Plans (CZMP). The intent of the CZMA is to prevent any additional loss of living marine resources, wildlife, and nutrient-enriched areas; alterations in ecological systems; and decreases in undeveloped areas available for public use.

Based on consultation with Mr. Bruce Green of the National Resources Conservation Service (NRCS), the site is not located in a coastal zone. Refer to the ROC in Appendix C documenting the NRCS consultation.

No Action Alternative

No impact to coastal zones is anticipated if no project action is taken.

Alternative 1 - Preferred Alternative – Berrien county Sherriff’s Department (Proposed Action)

Since the Preferred Alternative is not located in a coastal zone, there would be no impacts to coastal zones.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

Since the Preferred Alternative 2 site is not located in a coastal zone, there would be no impacts to coastal zones.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

Since the Alternative 3 site is not located in a coastal zone, there would be no impacts to coastal zones.

3.1.6 Coastal Barriers Resources

Based on consultation with Mr. Bruce Green of the NRCS and information obtained from the FEMA Flood Insurance Rate Map, which identifies coastal barrier resource system (CBRS) areas, no coastal barrier resources are located in the project areas. Refer to the ROC in Appendix C documenting the NRCS consultation. Coastal barriers are also delineated the FEMA Flood Insurance Rate Map (Number 26021CO101C, effective date April 17, 2006). ATC’s review of the map indicates that no coastal barrier resources are located in the project areas.

No Action Alternative

No impact to coastal zones is anticipated if no project action is taken.

Alternative 1 - Preferred Alternative – Berrien county Sherriff’s Department (Proposed Action)

Since there are no coastal barrier resources in the project area, there would be no impacts to coastal barrier resources.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

Since there are no coastal barrier resources in the project area, there would be no impacts to coastal

barrier resources.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

Since there are no coastal barrier resources in the project area, there would be no impacts to coastal barrier resources.

3.2 BIOLOGICAL ENVIRONMENT

3.2.1 Terrestrial and Aquatic Environment

The Endangered Species Act (16 U.S.C. S1531) 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 Fish & Wildlife Conservation Act (16 U.S.C. S2901), also known as the Nongame Act, provides financial and technical assistance to States for the conservation, protection, restoration and propagation of non-game fish and wildlife.

The Preferred Alternative and Alternative 2 are located on land occupied by the Berrien County Sheriff's Department, a municipal law enforcement agency and correctional facility, located within the city limits of St. Joseph. The project is located within an area of St. Joseph that traces its development back to at least the late 1800's, with documented land disturbance at the Preferred Alternative dating back to at least the late 1800's, as well. The project area consists of previously disturbed manicured lawn and a paved drive. An existing paved parking lot is located west adjacent to the site and will be utilized for access.

Alternative 3 is located on land occupied by the City of Benton Harbor water tower at the southwest corner of W. Britain and 8th Street. The Benton Harbor tower site is located within an area of Benton Harbor that traces its development back to at least the 1860's. This alternative is located adjacent to multi-family residences (apartments) to the north and south, single family residences to the east and light industrial and commercial properties to the west. This site location is highly urbanized.

Consultation with the Michigan Department of Natural Resources (MDNR) and the United States Department of Interior (USDOI) – Fish & Wildlife Service (FWS) regarding the Preferred Alternative's location in an officially designated Wilderness Areas or Wildlife Preserves, indicates the project area is not located within these designated areas. Information from the MDNR indicated there was no data regarding officially designated Wilderness Areas or Wildlife Preserves, listed Threatened, Endangered, or Designated Critical Habitats or the existence of any proposed Endangered or Threatened Species, or proposed habitats in the project area. The FWS indicated that the proposed project site was located within the historical range of several federal and state listed Endangered Species, which are discussed below in Section 3.2.3, along with their associated habitats. Additionally, further consultation with the FWS indicates that the proposed project area is located in the vicinity of a bird flyway zone; however, the FWS indicated that based on the project design impact on migratory birds will be minimized. The referenced agency consultation is included in Appendix C.

Since the project area consists of previously disturbed land consisting of fill dirt (refer to Archeological Survey in Appendix F) covered by a manicured lawn and an existing paved drive, the project area appears to have limited value for plant and wildlife species.

No Action Alternative

No impact to the terrestrial and aquatic environment if no project action is taken.

Alternative 1 - Preferred Alternative – Berrien County Sherriff’s Department (Proposed Action)

Construction would require the disturbance and removal of the vegetation at the at the proposed project site, all of which consists of previously disturbed maintained lawn and a concrete drive covering surficial soils determined to be fill dirt. Refer to the Archeological Survey in Appendix F for a description of the soils encountered on-site during the survey. There are two ornamental trees are located in the project area, which has been highly disturbed in the past. Construction impact would have a minimal short-term effect. No long-term effects to the terrestrial environment are anticipated. During construction best management practices, including silt fences and soil stabilization would occur to minimize temporary effects.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

Construction would not require the disturbance and removal of the vegetation at the at the this alternative project site since it consists of asphalt paving. Since there are no non-cultivated trees, shrubs or plants located in the project area, other than impact to the grasses in the vicinity of the project area, minimal short-term and no long-term effects to the terrestrial environment are anticipated. There was no evidence of wildlife or wetlands in the immediate vicinity of this site; therefore, there appears to be a low potential for impact to terrestrial or aquatic environments.

Alternative 3– Benton Harbor Water Tower at 8th and Britain

Construction associated with the water tower development would require minimal disturbance and removal of the vegetation at the alternate site, all of which consists of previously disturbed grass covered land associated with the existing water tower. Since there are no non-cultivated trees, shrubs or plants located in the project area, other than impact to the grasses in the vicinity of the project area, minimal short-term and no long-term effects to the terrestrial environment are anticipated. There was no evidence of wildlife or wetlands in the vicinity of the site; therefore, no impact to terrestrial or aquatic environments is expected.

3.2.2 Wetlands (Executive Order 11990)

The term wetland refers to areas that are inundated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, intrastate lakes, rivers, streams (including intermittent streams), mudflats sloughs, and similar areas.

Under EO 11990, federal agencies are required to minimize the destruction, loss, or degradation of wetlands and preserve and enhance their natural and beneficial values. If a federal action has the potential to impact jurisdictional waters of the U.S. as defined by Section 404 of the Federal Clean Water Act (CWA), the U.S. Army Corps of Engineers (USACE) would be contacted for appropriate permitting requirements. Section 404 of the CWA authorizes the USACE to issue permits after notice and opportunity for public hearings, for the discharge of dredged or fill material into the waters of the U.S. at specified disposal sites.

During the site characterization, there was no evidence of potential wetlands in the vicinity of the proposed project area, which consists of a disturbed maintained lawn, asphalt and concrete pavement and a small field area in which vegetation consists of apparent grasses that grows to heights of two feet or less. There are no wetlands in the immediate vicinity of the Preferred Alternative. Based on a review of the USFWS *National Wetland Inventory Map* for the USGS *Benton Harbor* Quadrangle wetlands do not exist on the proposed project site (Preferred Alternative), therefore, impact to aquatic environments are not expected. Additionally, Benton Harbor tower site location also is highly urbanized area and there are

no wetlands present. The wetland inventory map is Figure 7 included in Appendix A.

No Action Alternative

No impact to wetlands would occur.

Preferred Alternative – Berrien county Sherriff’s Department (Proposed Action)

Review of the USGS *Benton Harbor* Quadrangle Map (Figure 7: Appendix A) indicates no wetlands present at this Preferred Alternative or in the immediate vicinity. Since no wetland areas have been identified at this site or in its immediate vicinity, no impacts to wetlands are expected. No wetland areas were observed in the 150’ of grassy land between the Preferred Alternative and the Morrison Channel. Based on consultation with the MDNR and the FWS, in conjunction with information obtained from documented field observations, compliance with EO 11990 has been met.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

Review of the USGS *Benton Harbor* Quadrangle Map (Figure 7: Appendix A) indicates no wetlands present at this Preferred Alternative or in the immediate vicinity. Since no wetland areas have been observed or identified at this site or in its immediate vicinity, no impacts to wetlands are expected.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

Review of the USGS *Benton Harbor* Quadrangle Map (Figure 7: Appendix A) indicates no wetlands present at this Preferred Alternative or in the immediate vicinity. Since no wetland areas have been observed or identified at this site or in its immediate vicinity, no impacts to wetlands are expected.

3.2.3 Threatened and Endangered Species

In accordance with Section 7 of the Endangered Species Act (ESA) of 1973, the project area was evaluated for the potential occurrences of federally listed threatened and endangered species. The ESA requires any federal agency that funds, authorizes or carries out an action to ensure that their action is not likely to jeopardize the continued existence of any endangered or threatened species (including plant species) or result in the destruction or adverse modification of designated critical habitats (FEMA 1996).

In addressing the issue of Listed Threatened and/or Proposed Threatened or Endangered Species or Designated Critical Habitats in the vicinity of the proposed sites, as well as migratory issues and bird flyway zones, information from the Michigan Department of Natural Resources (MDNR) and the United States Fish and Wildlife Service (USFWS) was reviewed. Each agencies respective database was reviewed to identify whether or no Threatened or Endangered Species have been recorded in the vicinity of the proposed site.

Information from the MDNR regarding their review of “*Rare and Endangered Species*” indicates “the project should have no impact on rare or unique natural features” and that a review of their databases contain “*No Data*” of rare species in the region of the proposed area of construction. The MDNR letter is included in Appendix C. Further coordination with the USFWS indicated no effect based on the use of online consultation and further clarification from USFWS. The following table is extracted from the USFWS database for species potentially present within the Berrien County area:

ENVIRONMENTAL ASSESSMENT
Berrien County Area Wide Radio System

| Species | Classification | Habitat | USFWS Recommendations |
|------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Indiana bat <i>(Myotis sodalis)</i> | Endangered | Summer habitat includes small to medium river and stream corridors with well developed riparian woods; woodlots within 1 to 3 miles of small to medium rivers and streams; and upland forests. Caves and mines as hibernacula. | If it is necessary to remove any noncultivated trees to complete the project, it is recommended the applicant first contact the USFWS for guidance. |
| Piping plover (<i>Charadrius melodus</i>) | Endangered | Beaches along shorelines of the Great Lakes | If any of these species is encountered during construction of the project, work should immediately be stopped and the Division of Wildlife should be contacted |
| Eastern massasauga <i>(Sistrurus catenatus catenatus)</i> | Candidate | Wetlands and upland areas | If any of these species is encountered during construction of the project, work should immediately be stopped and the Division of Wildlife should be contacted |
| Mitchell's satyr butterfly <i>(Neonympha mitchellii mitchellii)</i> | Endangered | Fens; wetlands characterized by calcareous soils which are fed by carbonate-rich water from seeps and springs | If any of these species is encountered during construction of the project, work should immediately be stopped and the Division of Wildlife should be contacted |
| Pitcher's thistle <i>(Cirsium pitcheri)</i> | Threatened | Stabilized dunes and blowout areas | If any of these species is encountered during construction of the project, work should immediately be stopped and the Division of Wildlife should be contacted |
| Small whorled pogonia <i>(Isotria medeoloides)</i> | Threatened | Dry woodland; upland sites in mixed forests (second or third growth stage) | If any of these species is encountered during construction of the project, work should immediately be stopped and the Division of Wildlife should be contacted |

Based on data gathered during the archeological survey on the quality of soil on-site, which was determined to be fill material during a shovel test for historical resources at the site, there appears to be a

low potential for these species to exist on-site at the Preferred Alternative, Alternative 2 and Alternative 3. Based on the database search of Berrien County, detailed in the table above, and the species identified that could potentially occur, as well as the habitat requirement for these species, bats and butterflies may be transient visitors, however, based on the Section 7 review, it was determined that the project would have no potential effect on the listed species.

Correspondence from the MDNR indicates that due to the location of the project and type of work involved, the Wildlife Division - Natural Heritage Program believes that the project area will not have an impact on the above rare or unique natural features. Site reconnaissance for this project indicates that the habitats referenced above do not exist on or near the proposed project site. Therefore, no further evaluation under Section 7 of the Endangered Species Act (ESA) of 1973 is required. However, as indicated above, the MDNR requested that work cease and Ms. Lori Sargent be contacted at 517-373-1262 should any of the protected species be observed during construction, as indicated recommendation column of the above table. Refer to Appendix C for MDNR and USDOF-FWS documentation.

Mitigation Measures: USDOF-FWS Programmatic Agreement

The USDOF-FWS provides criteria for a programmatic agreement for communications projects which “were not expected to have any impact on endangered, threatened, proposed, and *candidate species* potentially occurring in the project area.” The criterion includes:

1. Replacement of an existing tower with a new tower that has equal or less potential for adverse impacts.
2. Purchase of existing towers of antenna structures for the continued use without physical modification to the configuration, height, access and/or footprint.
3. Cell tower placement on existing structures, with associated equipment installed within previously disturbed areas and with no significant increase in height (10% of original tower height or 20 feet, whichever is greater).
4. Construction of new tower, less than 300 feet tall, and installation of associated equipment within previously disturbed areas.
5. Construction of new tower, less than 300 feet tall, and installation of associated equipment upon agricultural land that has not lain fallow for more that one growing season.
6. Construction of a new, or expansion of existing, equipment shelters with footprints not more than 625-square-feet, in previously disturbed areas (developed commercial and industrial areas; agricultural fields not fallow for more than one year; manicured lawns; paved, graveled graded, filled, or otherwise unvegetated areas; or areas within the existing tower compound) that do not require impacts to trees.

The project plans for the Preferred Alternative propose the erection of a new 265’ lattice tower on an area currently occupied by manicured lawn, which is intended to replace an existing 250’ located at the parent parcel. The equipment is to be located within an existing structure located at the parent parcel. Based on the information provided for review, consideration has been given to the above noted criteria. A neutral-colored 265’ tower will be erected to replace a 250’ red and white tower for less adverse impact. The cell tower replacement will have not significant increase in height as it is less than 10% (or 20 feet) in height of the original tower height. The tower height will be less than 300’, located in a previously disturbed area (manicured lawn) and associated equipment will be located inside the adjacent building. Therefore, per the programmatic agreement, the proposed undertaking is not expected to have any impact on Federal threatened, endangered or candidate species.

According to the FWS Endangered Species Program Consultation Process, certain projects nearly always warrant a “No Effect” determination, notably telecommunications projects that are not located in or

adjacent to officially designated wildlife areas; projects that do not involve the removal of natural vegetation (i.e., vegetation other than cultivated plants and lawns); the construction of new or existing towers and associated equipment in previously disturbed areas (e.g. manicured lawns, active agricultural fields, or otherwise unvegetated areas that do not require impacts to uncultivated trees). Based upon the consultation process a decision for “No Effect” was reached; therefore, based on the criteria of the programmatic agreement, no further consultation with the USDOJ – FWS is required for this project, and no further evaluation under Section 7 of the Endangered Species Act (ESA) of 1973 is required. Record of the USDOJ-FWS consultation is included in Appendix C.

Mitigation Measures: Migratory Birds

The USDOJ-FWS is also interested in minimizing potential impacts to other wildlife resources, particularly migratory birds. The siting of new towers, increasing at an estimated 6 to 8 percent annually, creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating neotropical songbirds. Within this group, thrushes, vireos and warblers appear to be the most vulnerable. The problem is especially acute at tall, lighted, guyed towers, particularly in inclement night time weather conditions during spring and fall songbird migrations. Therefore, the FWS has developed a set of Standard Recommendations for the Siting of Cell Towers detailed in the following interim guidelines:

1. Any company/applicant/licensee proposing to construct a new communications tower is strongly encourage to collocate the communication equipment on an existing communication tower or other structure (e.g., billboard, water tower, or building mount). Depending on tower load factors, from 6 to 10 providers may collocate on an existing tower.
2. If collocation is not feasible and a new tower or towers are to be constructed, communications service providers are strongly encouraged to construct towers no more than 199 feet above ground level (AGL), using construction techniques which do not require guy wires (e.g., state or federal refuges, staging areas, rookeries), in known migratory or daily movement flyways, or in habitat of threatened or endangered species. Towers should not be sited in areas with a high incidence of fog, mist and low ceilings as compared to nearby areas.
3. If construction multiple towers, providers should consider the cumulative impacts of all of those towers to migratory birds and threatened and endangered species, as well as the impacts of each individual tower.
4. If at all possible, new towers should be sited with existing “antenna farms” (clusters of towers). Towers should not be sited in or near wetlands, other known bird concentration areas e.g., state or federal refuges, staging areas, rookeries), in known migratory or daily movement flyways, or in habitat of threatened or endangered species. Towers should not be sited in areas with a high incidence of fob, mist and low ceiling as compared to nearby areas.
5. If taller (>199 feet AGL) towers requiring lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used. Unless otherwise required by the FAA, only white (preferable) or red strobe lights should be used at night, and these should be the minimum number, minimum intensity, and the minimum number of flashes per minute (longest duration between flashes) allowable by the FAA. The use of solid red or pulsating red warning lights at night should be avoided. Current research indicates that solid or pulsating (beacon) red lights attract night-migrating birds at a much higher rate than white strobe lights. Red strobe lights have not yet been studied.
6. Tower designs using guy wires for support which are proposed to be located in known raptor or waterbird concentration areas or daily movement routes, or in major diurnal migratory bird movement routes or stopover sites, should have daytime visual markers on the wires to prevent collisions by these diurnally moving species.
7. Towers and appendant facilities should be sited, designed and constructed so as to avoid or minimize habitat loss within the area adjacent to the tower “footprint.” However, a larger tower footprint is

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- preferable to the use of guy wires in construction. Road access and fencing should be minimized to reduce or prevent habitat fragmentation and disturbance, and to reduce above ground obstacles to birds in flight.
8. If significant numbers of breeding, or roosting birds are known to habitually use the proposed tower construction area, relocation to an alternate site is recommended. If this is not an option, seasonal restrictions on construction should be considered in order to avoid disturbance during periods of high bird activity.
 9. In order to reduce the number of towers needed in the future, providers are encouraged to design new towers structurally and electrically to accommodate the applicant/licensee's antennas and comparable antennas for at least two additional users (minimum of three users for each tower structure), unless this design would require the additional of lights or guy wires to an otherwise unlighted and/or unguyed tower.
 10. Security lighting for on-ground facilities and equipment should be down-shielded to keep light within the boundaries of the site.
 11. If a tower is constructed or proposed for construction, Service personnel or researchers from the Communication Tower Working Group should be allowed access to the site to evaluate bird use, conduct dead-bird searches, to place net catchments below the towers but above the ground, and to place radar, Global Positioning System, infrared, thermal imagery, and acoustical monitoring equipment as necessary to assess and verify bird movements and to gain information on the impacts of various tower sizes, configurations, and lighting systems.
 12. Towers no longer in use or determined to be obsolete should be removed within 12 months of cessation of use.

Planned Mitigation Measures

Based on the above information, including a review of information provided by Pyramid and Motorola, consideration has been given to the above noted guidelines, and various measures have been incorporated into the project, such as:

- the project foot print is designed to be smaller than normal since the equipment will be installed in the adjacent building (mitigation);
- security lighting will be minimal and the lighting will comply with the FAA light requirements and adhere to the citing requests (mitigation). The Preferred Alternative tower height of 265' will have a dual flashing beacon at 265' (white low intensity strobe by day and red flash at night), and 3 side markers glowing red dusk to dawn at the mid point (135' level). This lighting is specific to what the FAA dictates for a tower of this height;
- avoidance measures will be taken to minimize or suspend disturbance during periods of high bird activity (mitigation); and
- during construction best management practices, including silt fences and soil stabilization would occur to minimize temporary effects (mitigation).

Additionally,

- the new tower is replacing an existing telecommunications tower located at the parent parcel, to the south/southwest of the proposed site and the old tower will be decommissioned. No birds are known to breed or roost in the project vicinity;
- the tower design does not utilize guy wires for support;
- the design allows for additional antennas at a later time; and
- information from the Berrien County Sheriff's Department indicates that historically during the time of operation of the existing tower no bird kills have been documented and no birds have been known to breed or nest in the existing tower on-site.

However, in order to obtain the desired coverage the height of the Preferred Alternative will be 265'. The Preferred Alternative is intended to replace the existing 250' tower located at the parent parcel. The new tower is expected to be constructed and the existing tower decommissioned within twelve months of construction.

Since the proposed action is located in southwestern Michigan, east of Lake Michigan, ATC contacted the FWS to request further consultation pertaining to any impacts to migratory birds and the proposed site's location in a bird flyway zone and provided details of the proposed project specifically requesting whether the proposed project is located in a known bird flyway zones. Ms. Tamika Dandridge of the USFWS indicates the project is located south of the intersection of the Atlantic and Upper Mississippi Flyways, located in Ottawa County, Michigan located approximately 50 miles to the north. The Mississippi Flyway is located along the coastline of the Lake Michigan Shore. Ms. Dandridge referred ATC to the FWS Standard Recommendations for the Siting of Cell Towers, indicating that if the noted guidelines are adhered to, the project design will minimize impact on migratory birds. Based upon the information noted above (the proposed Preferred Alternative project design) and statement from Ms. Dandridge, no further assessment of migratory birds is required by the USFWS consultation and a ROC documenting consultation with Ms. Dandridge (USFWS) is included in Appendix C.

No Action Alternative

Since no construction would occur under the No Preferred Alternative, there would be no impact to threatened and endangered species.

Alternative 1 - Preferred Alternative – Berrien county Sherriff's Department (Proposed Action)

The project area consists of a manicured lawn covering surficial soils determined to consist of fill dirt (See Archeological Survey in Appendix F). Information obtained from the MDNR and the FWS, in conjunction with project area observations during the site reconnaissance identifies that impacts to federally listed, Threatened or Endangered Species, candidate species, species of concern or designated critical habitats that may occur or can be found within the proposed project area are not anticipated.

In summary, there is a low potential for impact to any Listed Threatened and/or Proposed Threatened or Endangered Species, Designated Critical Habitats, migratory birds or bird flyway areas. This finding is based on the above referenced that includes:

- (a) correspondence from the MDNR and Division of Wildlife that indicates due to the location of the project and type of work involved it is believed that the project will not have an impact on the identified endangered species;
- (b) the MDNR indicated that a review of their databases indicates "the project should have no impact on rare or unique natural features" in the region of the proposed area of construction;
- (c) Ms. Tamika Dandridge of the USFWS indicates that the proposed site is south of the intersection of the Atlantic and Upper Mississippi Flyways in Ottawa County, Michigan which is located approximately 50 miles to the north. The proposed project is located adjacent to the Mississippi Flyway. The Mississippi Flyway is located along the coastline of the Lake Michigan Shore, and Ms. Dandridge indicates that based on the project design the effects to migratory birds will be minimized;
- (d) a review of the programmatic agreement detailed above indicates that the site plans meet the criteria of the agreement since the tower is located in an area that was previously disturbed and currently consists of manicured lawn and is less than 300 feet tall; and

(e) site reconnaissance for this project indicates that the habitats referenced in the table above do not exist in the on or near the proposed project site.

Therefore, no further evaluation under Section 7 of the Endangered Species Act of 1973 is required. Refer to Appendix C for MDNR response and FWS consultation.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

The project area consists of an existing telecommunications tower situated in an asphalt paved parking lot, adjacent to an existing Sheriff’s Department building. Information obtained from the MDNR and the FWS, in conjunction with project area observations during the site reconnaissance, impacts to federally listed, Threatened or Endangered Species, candidate species, species of concern or designated critical habitats that may occur or can be found within the proposed project area are not anticipated.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

The project area consists of an existing water tower and telecommunications compound with a grass covered surface. Information obtained from the MDNR and the FWS for the Berrien County area (Appendix C), in conjunction with project area observations during the site reconnaissance, impacts to federally listed, Threatened or Endangered Species, candidate species, species of concern or designated critical habitats that may occur or can be found within the proposed project area are not anticipated.

3.3 HAZARDOUS MATERIALS

A Phase I Environmental Site Assessment (Phase I), dated July 3, 2009, which included an environmental database search, inquiries to state and local agencies and officials, historical research and a site reconnaissance was prepared for the Preferred Alternative by ATC Associates, Inc. and is included in Appendix F of this document. Information provided by the county is included in Appendix C and in the Phase I ESA included in Appendix F.

Neither the site reconnaissance nor the historical research conducted by ATC revealed evidence of recognized environmental conditions in the vicinity of the Preferred Alternative project area, which consists of manicured grass. However, the environmental database search identified 919 Port Street, the parent parcel that includes both Alternative 1 (Preferred Alternative) and Alternative 2, as an underground storage tank (UST) site, with a former 20,000-gallon gasoline UST, installed in 1980 and removed in 1998, and an active 2,000-gallon diesel UST installed in 1979 that is currently in use for backup power for the generator.

ATC interviewed the database listed site contact, Mr. William Eferrell (Berrien County retired building superintendent for the site) regarding the USTs. According to Mr. Eferrell, the 20,000-gallon gasoline UST and associated fueling dispensers were located greater than approximately 200’ east and southeast of the Preferred Alternative, respectively. Mr. Eferrell stated that the 2,000-gallon diesel UST is currently located “on the front lawn” of the building, adjacent to Port Street and is located approximately 250’ south-southeast of the site. This information was verified by Mr. Pat Sweeney (current Building and Grounds Director for Berrien County). The reported location of both the former and current USTs was also confirmed with the current Building and Grounds Superintendent, Mr. Pat. Based on the, the presence of the building (with foundation and partial basement) between the site and the former and current tank locations, as well as the lack of reported releases associated with these USTs, there is a low potential for impact to either the Preferred Alternative and Alternative 2. Alternative 3 is located greater than 3,000 feet from the referenced USTs, therefore, the USTs are not considered a concern for this site.

Further information provided by both Mr. Eferrell and Mr. Sweeney with Berrien County, and discussed in the above referenced Phase I ESA (Appendix F), indicates that a subsurface investigation was conducted on the parent parcel of the Preferred Alternative and Alternative 2 associated with the removal of four historical heating oil USTs. Three of USTs (two 20,000-gallon USTs and one 10,000-gallon UST) were located under the prisoner's yard located on the northern portion of the Sheriff's Department structure (adjacent to the Preferred Alternative) and a fourth UST (10,000-gallon capacity) was discovered in the same area at the time of the excavation. Berrien County provided ATC with a copy of the UST Removal from Ground report, conducted by Villa Environmental Consultants, dated January 24, 2007 that documents the UST removals.

No evidence of contamination was visible following the removal of the USTs. Following their removal, two soil samples were collected beneath one of the USTs that were analyzed for polynuclear aromatic hydrocarbons (PNAs). No groundwater was encountered. The results of one of the soil samples indicated low levels of pyrene and the results of the other sample were below the laboratory method detection limits (mdls). Groundwater samples were collected beneath the three remaining tanks. The analytical results indicate that samples from the bottom of the tanks were positive for PNA's; however, all the other samples analyzed were below the Michigan Department of Environmental Quality (MDEQ) residential criteria, except for the sample taken from the western most tank bottom which was 2.1 ppb (exceeding the MDEQ residential criteria of 1.6 ppb) for chrysene.

In order to delineate the extent of the contamination, four soil borings were advanced to the east, north and northwest of the former UST excavation. Four soil samples and two groundwater samples were collected and analyzed for volatile organic compounds (VOCs) and polynuclear aromatics (PNAs). All samples analyzed were determined to be below the laboratory mdls. No evidence of staining, a sheen or odor was observed in the vicinity of the either the Preferred Alternative or Alternative 2 during ATC's 2009 site reconnaissance. Based upon the above information, indicating no contamination outside the former excavation, including the soil borings collected between the proposed site and the former tank vaults, the former fuel oil USTs are considered to have had low potential to impact the proposed Preferred Alternative site and Alternative 2. No evidence of a release was observed in the vicinity of Alternative 3, located greater than 3,000 feet from the referenced USTs, and therefore, the former fuel oil USTs are not considered a concern for this site.

According to the environmental database report, the west adjacent property at 811 Port Street is the site of five registered underground storage tanks (USTs). Two registered 10,000-gallon diesel USTs are reported as installed in-ground in May of 1965; both are reported as removed from ground August 1, 2006. Two registered 20,000-gallon diesel USTs are reported as installed in-ground in May of 1976; both are reported as removed from ground August 1, 2006. The remaining UST is listed as a 2,000-gallon diesel containing UST installed in-ground in May 1983 and is currently in use. No record of a material release associated with any of these USTs, which are located approximately 250 feet from the Preferred Alternative; therefore they are not considered a concern for the Preferred Alternative vicinity.

The regulatory database report identified two CORRACTS sites, two non-CORRACTS TSD sites, two CERCLIS-NFRAP sites and one US INST CONTROL site within the referenced search radii. These sites are considered to have a low potential to impact the Preferred Alternative based on distance (all greater than 1,400' from the site), the presence of intervening infrastructure, including roadways with utility corridors, buildings with foundations and basements, and the location of the St. Joseph River between these sites and the parent parcel. Historically at the Benton Harbor tower site there have been no hazardous materials or underground storage tanks. Therefore, they are not considered a concern for the Preferred Alternative or Alternative 2, or Alternative 3, which is located approximately 3,400' from these sites.

There are ten leaking underground storage tank sites, two Brownfield sites and seven SHWS sites listed in the state database reports within the referenced search radii. Based upon distance (all greater than 500'), inferred ground water flow, intervening infrastructure (including utility corridors, structures with foundations/ basements and roadways, as well as the river in some cases) and/or regulatory status the above referenced sites listed in the regulatory database are considered to pose a low potential to impact the any of the Alternative. The remaining sites listed in the regulatory database report are not considered a concern to the Alternatives based on regulatory status and/or location.

No Action Alternative

No hazardous materials issue would occur under the No Preferred Alternative.

Alternative 1 - Preferred Alternative – Berrien County Sheriff's Department (Proposed Action)

The tower construction would require soil excavation. Based on a review of the information presented in the Archeological Survey (Appendix F), the Preferred Alternative consists of grassy, unimproved land covering surficial soils indicated to be fill dirt. The information obtained from a previous subsurface investigation associated with the removal of the former fuel oil USTs on-site indicates that the soil borings advanced in the vicinity consist of fill to approximately 0-3' below ground surface (bgs), followed by brown clay to a depth of approximately 3-5' bgs, underlain by brown silt to a depth of approximately 5-6.5' bgs, followed by brown clay to a depth of approximately 6.5-8.5' bgs, and then by reddish brown sand to a depth of approximately 8.5-9.5' bgs, underlain by gray clay to a depth of approximately 9.5-13' bgs, then by sand to a depth of approximately 13-14' bgs, by gray clay to a depth of approximately 14-17' bgs, and by dry sand to a depth of approximately 17-17.25' bgs, and finally underlain by gray clay to a depth of approximately 17.25-24' bgs, the maximum depth explored

Based on the above information and observations made during the site reconnaissance soil excavation in the vicinity of the project is not anticipated to impact any hazardous materials. Although subsurface hazardous materials are not anticipated to be present in the project area, construction activities could expose or otherwise affect subsurface hazardous wastes or materials. Any hazardous materials discovered, generated, or used during the construction of the project would be handled and disposed of by the county in accordance with applicable local, state, and federal regulations.

Alternative 2 – Existing Tower, Berrien County Sheriff's Department

Collocation on this tower would require some soil excavation. Based this Alternative's location in the proximity of the Preferred Alternative, it is anticipated that similar conditions exist. Therefore, soil excavation in the vicinity of Alternative 2 is not anticipated to impact any hazardous materials.

Although subsurface hazardous materials are not anticipated to be present in the project area, construction activities could expose or otherwise affect subsurface hazardous wastes or materials. Any hazardous materials discovered, generated, or used during the construction of the project would be handled and disposed of by the county in accordance with applicable local, state, and federal regulations.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

The construction associated with collocation of the water tower would require soil excavation. Observations during the site reconnaissance of this Alternative indicate that it consists of a grass-covered compound. The soils in the vicinity of this alternative are reported to consist of Cohoctah-Urban Land. The Cohoctah series consists of very deep, poorly drained or very poorly drained soils formed in loamy alluvial deposits on flood plains. Permeability is moderately rapid. Slope ranges from 0 to 2 percent.

Urban land is land covered with streets, parking lots, buildings, and other structures that so obscure or alter the soils that identification of the soil is not feasible. A review of the regulatory database report did not indicate any concerns in the immediate vicinity. Soil excavation in the vicinity of this Alternative is not anticipated to impact any hazardous materials.

Although subsurface hazardous materials are not anticipated to be present in the project area, construction activities could expose or otherwise affect subsurface hazardous wastes or materials. Any hazardous materials discovered, generated, or used during the construction of the project would be disposed and handled by the county in accordance with applicable local, state, and federal regulations.

3.4 SOCIOECONOMICS

3.4.1 Zoning and Land Use

All of the alternatives are located in the western part of Berrien County, within the cities of St. Joseph and Benton Harbor, which have zoning ordinances. Current use of the Preferred Alternative project area includes unimproved grass covered land associated with an area zoned “CO-B” (commercial office district) and bordering on an area zoned “OS” (open space district). The current Sherriff’s Department building was constructed in 1951. Past uses of the parent parcel indicates that the project area is located in an area that has been developed since at least the late 1800’s and has been occupied historical residences, businesses and the Sherriff’s Department and correctional facility since at least the late 1800’s. Information contained within the Phase I ESA and the Archeological Survey, included in Appendix F, indicates that the surficial soils in the project area consist of fill dirt. Alternative 3 is adjacent to multi-family residences (apartments) to the north and south, single family residences to the east and light industrial and commercial properties to the west.

A zoning map depicting the project location and surrounding land uses is included in Appendix A.

No Action Alternative

The No Action Alternative would have no impact upon the existing zoning designation and current land uses in the area.

Alternative 1 - Preferred Alternative – Berrien county Sherriff’s Department (Proposed Action)

The Preferred Alternative is located within the CD-8, Commercial Office District. The Commercial Office District is located north and south of Port Street and west of Wayne Street. The land located between the parent parcel and the Morrison Channel of the St. Joseph River is zoned as OS, Open Space Land. Based on the project area’s location within the CD-8 zoning district, where the operation of a communications facility is considered an essential service and is deemed compatible with adjacent land uses, impacts to the zoning or land use are not anticipated. On August 3, 2009 at the City of St. Joseph Commissioner’s meeting/ Public Hearing a Special Use permit for a communications tower at 919 Port Street was approved.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

Alternative 2 is located within the CD-8, Commercial Office District. The Commercial Office District is located north and south of Port Street and west of Wayne Street. The land located between the parent parcel and the Morrison Channel of the St. Joseph River is zoned as OS, Open Space Land. Based on the project area’s location within the CD-8 zoning district, where the operation of a communications facility is considered an essential service and is deemed compatible with adjacent land uses, impacts to the zoning

or land use are not anticipated.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

Based on the lack of response from the City of Benton Harbor, the precise zoning for Alternative 3 has not been identified. Based on this site's use as a municipal water tower that is currently collocated upon by telecommunications antennas, and its location in an area of mixed use, zoning is not presumed to be incompatible with this alternative.

3.4.2 Visual Resources

Visual resources refer to the landscape character (i.e., what is seen), visual sensitivity (i.e., human preferences and values regarding what is seen), scenic integrity (i.e., degree of intactness and wholeness in the landscape character), and landscape visibility (i.e., relative distances of seen areas) of a geographically defined view shed.

The project area is located in a mixed use area on grassy land owned by the County of Berrien and is occupied by Berrien County Sherriff's Department (the parent parcel), a law enforcement agency and correctional facility. The land to the north of the project area consists of a treed and vegetated swath of land that declines steeply toward a public walkway running parallel (zoned as an open space district) to the Morrison Channel of the St. Joseph River, located approximately 150' north and northeast. Beyond the Morrison Channel is Marina Island (located north and east of the project area), zoned as a "water recreation district." The land to the east of the project area and Sherriff's Department complex consists of grassy areas and roadways followed by the Morrison Channel of the St. Joseph River. The land to the south of the project area and Sherriff's Complex is composed of a roadway (Port Street) and is followed by commercial structures and municipal parking. The land to the west is occupied by the Berrien County Courthouse and its associated parking and drives.

Roadways, water towers and structures visually fragment the landscape surrounding the vicinity of the project area.

No Action Alternative

The No Action Alternative would have no impact to the visual resources of the project site and surrounding area.

Preferred Alternative – Berrien county Sherriff's Department (Proposed Action)

The proposed construction area encompasses approximately 371 square-feet of land that currently consists of previously disturbed maintained lawn for the tower compound and approximately 300 feet of land disturbance beneath an existing concrete drive for underground routing from proposed equipment room to proposed lattice tower (approximately 671square-feet total).

The primary constituents in the view shed of the Preferred Alternative consist of an industrial area located north of the St. Joseph River the Morrison Channel of the St. Joseph River to the east and northeast, marina's, municipal and commercial businesses and roadways and residences to the south. The Berrien County Courthouse, associated parking and ancillary structures are located to the west.

No hiking trails, parks, or other sites of scenic integrity were identified in the project view shed. Trees border the parent parcel to the north and northeast of the project area that would appear to limit any view from the Morrison Channel in those areas. Since these features already have a view of the Sherriff's

Department and existing telecommunications tower, it is unlikely that the replacement of the telecommunications tower in the area would be deemed unfavorable.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

The proposed construction area encompasses approximately 600 square-feet of land that currently consists of previously disturbed asphalt paved land. Access to the tower is from the existing Sherriff’s Department parking lot.

The primary constituents in the view shed consist of an industrial area located north of the St. Joseph River the Morrison Channel of the St. Joseph River to the east and northeast, marina’s, municipal and commercial businesses and roadways and residences to the south. The Berrien County Courthouse, associated parking and ancillary structures are located to the west.

No hiking trails, parks, or other sites of scenic integrity were identified in the project view shed. Trees border the parent parcel to the north and northeast of the project area that would appear to limit any view from the Morrison Channel and Marina in those areas. Since these features already have a view of the Sherriff’s Department and existing telecommunications tower, it is unlikely that the replacement of the telecommunications tower in the area would be deemed unfavorable.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

The proposed project is comprised of an existing water tower and an existing 1,800 square-foot fenced grassy area that contains an equipment shelter (comprised of a prefabricated plastic shed) with access from Britain Avenue and 8th street.

The primary constituents in the view shed consist of residential development to the north beyond, Britain Avenue; east, beyond 8th Street and south, along 8th Street. Commercial development is located to the west. The St. Joseph River is located approximately 2,000’ west of the site.

No hiking trails, parks, or other sites of scenic integrity were identified in the project view shed. Trees border the parent parcel to the north, as well as the residential land to the north of the railroad tracks that would appear to limit the view from the residences. Since these residences already have a view another nearby tower and the freeway, it is unlikely that the expansion of a communications compound in the area would be deemed unfavorable.

3.4.3 Noise

Sound is most commonly measured in decibels (dB) on the A-weighted scale, which is the scale most similar to the range of sounds that the human ear can hear. The Day-Night Average Sound Level (DNL) is the average measure of sound. The DNL descriptor is accepted by federal agencies as a standard for estimating sound impacts and establishing guidelines for compatible land uses.

Noise, defined herein as undesirable sound, is federally regulated by the Noise Control Act of 1972 (NCA). Although the NCA gives the EPA authority to prepare guidelines for acceptable ambient noise levels, it only charges those federal agencies that operate noise-producing facilities or equipment to implement noise standards. The EPA’s guidelines, and those of many federal agencies, state that outdoor sound levels in excess of 55 dB DNL are: “normally unacceptable” for noise-sensitive land uses such as residences, schools, and hospitals.

Sensitive receptors in the area include the corrections facility at the parent parcel and residences

(approximately 300') to the southeast and (approximately 400') south.

No Action Alternative

The No Action Alternative would have no impact to the noise levels in the project and surrounding area.

Preferred Alternative – Berrien county Sherriff’s Department (Proposed Action)

Construction would increase noise levels temporarily (short term) in the vicinity of the project. The project is located in an urban commercial area and the nearby receptor are the prisoner housing located within the Berrien County Sherriff’s Department, a residential area located greater than 300’ east of the project area, and residences greater than 400’ south of the proposed compound beyond Port Street. Therefore, the levels of noise generated during the construction of the tower compound are not anticipated to adversely impact the local population.

Construction Equipment scheduled to be used on the site is typical of equipment used on most communication facility construction and includes the following: a small front end loader / bulldozer (Bobcat or equivalent manufacturer), a mini- excavator (Trackhoe), concrete trucks, a boom truck (used to assist with off-loading of the tower and other lifting needs), a crane (tower erection), construction trucks and trailers used to transport crew members and equipment, and various gasoline and electric powered hand tools used by construction crew members. Temporary noise impacts from construction activities may result from bulldozers, cranes, drill rigs, concrete trucks, and other heavy equipment, and may temporarily increase noise levels. Noise levels can vary from day to day depending on the level of activity and the weather. To reduce temporary noise impact, the applicant would keep equipment operations to a minimum and limit the project activities that increase noise levels to daylight hours.

No long term effects are anticipated since after construction, activity at the proposed facility will be limited to monthly maintenance visits inside the equipment shelter or around the tower.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

Construction would increase noise levels temporarily (short term) in the vicinity of the project. The project is located in an urban commercial area and the nearby receptors include the prisoner housing located within the Berrien County Sherriff’s Department, a residential area located greater than 300’ east of the project area, and residences greater than 400’ south of the proposed compound beyond Port Street. The levels of unavoidable short term noise associated with construction activities is not expected to cause long term impacts or to measurably increase ambient noise levels. Therefore, the levels of noise generated during the tower collocation are not anticipated to adversely impact the local population.

Construction Equipment scheduled to be used on the site is typical of equipment used on most communication facility construction and includes the following: a small front end loader / bulldozer (Bobcat or equivalent manufacturer), a mini- excavator (Trackhoe), concrete trucks, a boom truck (used to assist with off-loading of the tower and other lifting needs), a crane (tower erection), construction trucks and trailers used to transport crew members and equipment, and various gasoline and electric powered hand tools used by construction crew members. Temporary noise impacts from construction activities may result from bulldozers, cranes, drill rigs, concrete trucks, and other heavy equipment, and may temporarily increase noise levels. Noise levels can vary from day to day depending on the level of activity and the weather. To reduce temporary noise impact, the applicant would keep equipment operations to a minimum and limit the project activities that increase noise levels to daylight hours.

No long term effects are anticipated since after construction, activity at the proposed facility will be

limited to monthly maintenance visits inside the equipment shelter or around the tower.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

Construction would increase noise levels temporarily in the vicinity of the project. The project is located in a densely populated area, with the nearby receptors consisting of adjacent multifamily residences to the north (beyond Britain Avenue) and to south; single family residences are located adjacent to the site to the east beyond 8th Street. Commercial businesses are located to the west. The levels of unavoidable short term noise associated with construction activities is not expected to cause long term impacts or to measurably increase ambient noise levels. Therefore, the levels of noise generated during the tower collocation are not anticipated to adversely impact the local population.

Construction Equipment scheduled to be used on the site is typical of equipment used on most communication facility construction and includes the following: a small front end loader / bulldozer (Bobcat or equivalent manufacturer), a mini- excavator (Trackhoe), concrete trucks, a boom truck (used to assist with off-loading of the tower and other lifting needs), a crane (tower erection), construction trucks and trailers used to transport crew members and equipment, and various gasoline and electric powered hand tools used by construction crew members. However, temporary noise impacts from construction activities may result from bulldozers, cranes, drill rigs, concrete trucks, and other heavy equipment, and may temporarily increase noise levels. Noise levels can vary from day to day depending on the level of activity and the weather. To reduce temporary noise impact, the applicant would keep equipment operations to a minimum and limit the project activities that increase noise levels to daylight hours.

No long term effects are anticipated since after construction, activity at Alternative 3 will be limited to monthly maintenance visits inside the equipment shelter or around the tower.

3.4.4 Public Services and Utilities

The St. Joseph Police Department, under the direction of Police Chief Mark Capp, and the Berrien County Sherriff's Department would provide police protection for the Preferred Alternative and Alternative 2 (also, located at the Berrien County Sherriff's Department). Alternative 3, Benton Harbor Water Tower at 8th and Britain would receive police protection from the Benton Harbor Police Department (police chief position currently vacant). The St. Joseph Fire Department, under the direction of Fire Chief Kevin Luhrs, would provide fire and emergency rescue services for the Preferred Alternative and Alternative 2 (also, located at the Berrien County Sherriff's Department). Alternative 3, Benton Harbor Water Tower at 8th and Britain would receive fire and emergency rescue services from the Benton Harbor Fire Department.

Utilities and solid waste services exist at the parent parcel (Preferred Alternative and Alternative 2) and are available vicinity of the water tower (Alternative 3). Tower debris will be disposed of at a local landfill or recycled. Waste generated from the construction of the proposed tower and the decommissioning of the existing red and white tower that cannot be recycled is expected to be disposed of at the Southeast Berrien County Landfill (SEBCL), a Type II Municipal Solid Waste landfill as defined in 40 CFR 60.751 and is owned and operated by the SEBCL Authority. The landfill has a design capacity greater than 2.5 million megagrams and has recycling services.

Indiana Michigan Power/American Electric Power provides electricity and SEMCO provides natural gas services to the parent parcel and surrounding area (i.e. the Cities of Benton Harbor and St. Joseph). Potable water, as well as sanitary and storm sewer services are provided by the Cities of Benton Harbor and St. Joseph. Information provided by the city and county officials is documented in ROCs included in

Appendix C.

No Action Alternative

Under the No Action Alternative, no impacts are anticipated to occur to essential public services or utilities.

Preferred Alternative – Berrien county Sherriff’s Department (Proposed Action)

Utilities anticipated to be necessary for the implementation of the Preferred Alternative include electricity, water, and natural gas, which are available on-site. Limited wastewater is expect to be generated and is limited to waste water produced from watering down the construction area to keep the dust down when necessary and is not anticipated to have a detrimental impact on the water quality. All solid waste produced would be removed from on-site and disposed of properly.

Following the construction of the Preferred Alternative, the utilities necessary to support the operation of the system include electricity available on-site in the equipment room and an above ground propane tank will be installed within the compound. The activities at the site would not generate any waste materials for which solid waste services would be necessary. It is not anticipated that the construction of the Preferred Alternative would require the City’s emergency response services to the site.

The construction debris is expected to be handled by Reliable Disposal of Stevensville, Michigan and/or disposed of at the Southeast Berrien County Landfill. No adverse impacts are expected.

Emergency first responders in Berrien County are currently unable to communicate with each other, and therefore, are unable to provide a coordinated response during emergencies or threats to public health and safety. The purpose of the project is to improve public services, in particular emergency services coordination by providing emergency first responders the tools needed to communicate with each other by joining Michigan Public Safety Communication System (MPSCS). The scope of this project consists of erecting a tower as part of the plan to obtain 95% in-building portable radio coverage. New radios including base stations, mobile radios and portable radios will be provided to all emergency first responders. It is anticipated that, once implemented, the project may result in a decreased loss of life and property.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

Utilities anticipated to be necessary for the implementation of the Alternative 2 include electricity, water, and natural gas, which are available on-site. Limited wastewater is expect to be generated and is limited to waste water produced from watering down the construction area to keep the dust down when necessary and is not anticipated to have a detrimental impact on the water quality. All solid waste produced would be removed from on-site and disposed of properly.

Following the construction of the Alternative 2, the utilities necessary to support the operation of the system include electricity available on-site in the equipment room and an above ground propane tank will be installed within the compound. The activities at the site would not generate any waste materials for which solid waste services would be necessary. It is not anticipated that the construction of the Preferred Alternative would require the City’s emergency response services to the site.

The construction debris is expected to be handled by Reliable Disposal of Stevensville, Michigan and/or disposed of at the Southeast Berrien County Landfill. No adverse impacts are expected.

Emergency first responders in Berrien County are currently unable to communicate with each other, and therefore, are unable to provide a coordinated response during emergencies or threats to public health and safety. The purpose of the project is to improve public services, in particular emergency services coordination by providing emergency first responders the tools needed to communicate with each other by joining Michigan Public Safety Communication System (MPSCS). The scope of this project consists of erecting a tower as part of the plan to obtain 95% in-building portable radio coverage. New radios including base stations, mobile radios and portable radios will be provided to all emergency first responders. It is anticipated that, once implemented, the project may result in a decreased loss of life and property.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

Utilities anticipated to be necessary for the implementation of the Alternative 3 include electricity, which is available on-site. Propane and potable water will be brought in during construction. Limited wastewater is expect to be generated and is limited to waste water produced from watering down the construction area to keep the dust down when necessary and is not anticipated to have a detrimental impact on the water quality. All solid waste produced would be removed from on-site and disposed of properly.

Following the construction of the Alternative 3, the utilities necessary to support the operation of the system include electricity available on-site and an above ground propane tank that will be installed within the compound. The activities at the site would not generate any waste materials for which solid waste services would be necessary. It is not anticipated that the construction of the Preferred Alternative would require the City's emergency response services to the site.

The construction debris is expected to be handled by Reliable Disposal of Stevensville, Michigan and/or disposed of at the Southeast Berrien County Landfill. No adverse impacts are expected.

Emergency first responders in Berrien County are currently unable to communicate with each other, and therefore, are unable to provide a coordinated response during emergencies or threats to public health and safety. The purpose of the project is to improve public services, in particular emergency services coordination by providing emergency first responders the tools needed to communicate with each other by joining Michigan Public Safety Communication System (MPSCS). The scope of this project consists of erecting a tower as part of the plan to obtain 95% in-building portable radio coverage. New radios including base stations, mobile radios and portable radios will be provided to all emergency first responders. It is anticipated that, once implemented, the project may result in a decreased loss of life and property.

3.4.5 Traffic and Circulation

The Parent Parcel of the Preferred Alternative and Alternative 2 is located north of Port Street, east of the Berrien County Courthouse, parking and outbuildings, south of unimproved land, and west of Wayne Street in the City of St. Joseph. Alternative 3 is located north of multi-family residential structures, east of commercial structures, south of Britian, and west of 8th Street.

No Action Alternative

The No Action Alternative would have no impact to the traffic and circulation in the vicinity of the project.

Preferred Alternative – Berrien county Sherriff’s Department (Proposed Action)

Although construction would increase construction traffic temporarily, the immediate project area is situated on a piece of land adjacent to the northernmost portion of the parking lot associated with the Berrien County Sherriff’s Department, and adverse long-term impacts to the traffic and circulation in the surrounding area are not anticipated. However, construction traffic would be temporary and short term with heavy equipment use confined to normal working hours (i.e. 8am to 5pm). No impacts to transportation networks or access from such networks are anticipated.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

This alternative is located near the Preferred Alternative and is situated at the Berrien County Sherriff’s Offices, which is adjacent to the Berrien County Courthouse and the associated correctional facility. Traffic in the vicinity of this site is expected to be moderately heavy from the early morning and to late afternoons.

Although construction would increase construction traffic temporarily, the immediate project area is situated on a piece of land adjacent to the western parking lot associated with the Berrien County Sherriff’s Department, and adverse long-term impacts to the traffic and circulation in the surrounding area are not anticipated. However, construction traffic would be temporary and short term with heavy equipment use confined to normal working hours (i.e. 8am to 5pm). No impacts to transportation networks or access from such networks are anticipated.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

This alternative is located at adjacent to multi family residences (apartments) to the north and south, single family residences to the east and light industrial and commercial properties to the west. This site location is highly urbanized with schools and churches in the near vicinity. Traffic in the vicinity of this site is expected to be moderately heavy in the early morning and mid to late afternoons.

Although the project is located on well traveled roadways in an area of dense residential development (to the north, east and south) and commercial development to the west, construction would increase traffic temporarily, and adverse long-term impacts to the traffic and circulation in the surrounding area are not anticipated. However, construction traffic would be temporary and short term with heavy equipment use confined to normal working hours (i.e. 8am to 5pm). No impacts to transportation networks or access from such networks are anticipated.

3.4.6 Environmental Justice (Executive Order 12898)

EO 12898, entitled, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” directs federal agencies to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the U.S. This section examines the impact of the project on minority and low-income populations and determines whether the project would have a disproportionately high and adverse effect on the populations.

Census Bureau data indicates that there are approximately 277.3 persons per square mile (U.S. Census Bureau, 2000) in Michigan. According to the United States Census Bureau website, 162,453 persons reside in Berrien County, Michigan (Census 2000); of this number approximately 129,459 are listed by race as white; approximately 25,879 are listed as Black or African American; approximately 1,849 are

Asian; the remaining persons are listed as Alaskan Natives, Hawaiian Natives or other Pacific Islanders, Native Americans or “two or more races.”

Approximately 8,789 persons reside in the City of St. Joseph and approximately 7,937 (90.3%) of the population are White, approximately 449 (5.1%) are African American, approximately 210 are Asian (2.4%); the remaining approximately 2.2% of the population are listed as Alaskan Natives, Hawaiian Natives or other Pacific Islanders, Native Americans or “two or more races.” Approximately 4.3% of the families in the City of St. Joseph were at or below poverty level and 6.6% of individuals were at or below poverty level, for the 2000 Census figures. These figures are indicated to be below the national percentage of 12.4 for the same year (U.S. Census Bureau, 2000).

Approximately 10,997 persons reside in the Benton Harbor and approximately 615 (5.5%) of the population are White, approximately 10,332 (92.4%) are African American, approximately 15 are Asian (0.1%); the remaining approximately 2.0% of the population are listed as Alaskan Natives, Hawaiian Natives or other Pacific Islanders, Native Americans or “two or more races.” Approximately 39.6% of the families in the Benton Harbor were at or below poverty level and 42.6% of individuals were at or below poverty level, for the 2000 Census figures. This is above the national percentage of 12.4 for the same year (U.S. Census Bureau, 2000).

A site reconnaissance verified that there are streets with homes to the east, south, southeast, and west within a one-half mile radius of the project area. Refer to the Site Locator Map in Appendix A.

In compliance with EO12898, Environmental Justice, the socioeconomic conditions and potential effects related to the No Action, Proposed Action and Preferred Alternative have been reviewed as indicated below:

No Action Alternative

The No Action Alternative would have no impact on any minority or low-income populations in the project vicinity.

Preferred Alternative – Berrien county Sherriff’s Department (Proposed Action)

As stated above, the construction of the communications tower is to improve public services, in particular emergency services coordination, as part of the plan to elevate the level of coordination during emergencies of all types. It is anticipated that, once implemented, the project may result in a decreased loss of life and property, directly impacting for the better the lives of all nearby residents. This site location would not disproportionately affect minorities or low income residents as it is situated in the city of St. Joseph which has a total minority population of less than 10% and a poverty level well below the national average of 12.4%. It is anticipated that, once implemented, the project may result in a decreased loss of life and property, directly impacting for the better the lives of all nearby residents.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

The construction of the communications tower is to improve public services, in particular emergency services coordination, as part of the plan to elevate the level of coordination during emergencies of all types. It is anticipated that, once implemented, the project may result in a decreased loss of life and property, directly impacting for the better the lives of all nearby residents. This site location would not disproportionately affect minorities or low income residents as it is situated in the city of St. Joseph which has a total minority population of less than 10% and a poverty level well below the national average of 12.4%. It is anticipated that, once implemented, the project may result in a decreased loss of life and

property, directly impacting for the better the lives of all nearby residents.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

Though this site is located in an area with a large minority (~95%) and low-income population the construction of the communications tower is to improve public services, in particular emergency services coordination, as part of the plan to elevate the level of coordination during emergencies of all types. It is anticipated that, once implemented, the project may result in a decreased loss of life and property, directly impacting for the better the lives of all nearby residents.

3.4.7 Safety and Security

Safety and security issues that have been considered in this EA include the health and safety of the area residents and the public at-large, and protection of personnel involved in construction activities. The project area is located north of Port Street, west of Wayne Road (Business I-94) in grassy area associated with a parcel of land improved with the Berrien County Sherriff's Offices and the associated correctional facility. The implementation of any of the Alternatives is expected to reduce the public health and safety risk posed by the lack of communication between emergency first responders that may result in an increased loss of life and property, as well as the risk to homeland security.

No Action Alternative

Under the No Action Alternative, there is a continued risk to homeland security and to the health and safety of the citizens of Berrien County due to the lack of interoperability for emergency first responders.

Preferred Alternative – Berrien county Sherriff's Department (Proposed Action)

The impact to public safety and security from the Preferred Alternative would be beneficial. This proposed action would link all emergency first responders and elevate the level of coordination during emergencies of all types. It is anticipated that, once implemented, the project may result in a decreased loss of life and property, directly impacting, for the better, the lives of all nearby residents.

No adverse impacts to the safety or accessibility of the roads in the area are anticipated. However, construction activities could present safety risks to those performing the activities. To minimize risks to human safety and health, all construction activities would be performed by qualified personnel trained in the proper use of the appropriate equipment and all appropriate safety precautions. Additionally, all activities would be conducted in a safe manner in accordance with the standards specified in OSHA regulations.

Alternative 2 – Existing Tower, Berrien County Sheriff's Department

The impact to public safety and security from Alternative 2 would be beneficial. This alternative would link all emergency first responders and elevate the level of coordination during emergencies of all types. It is anticipated that, once implemented, the project may result in a decreased loss of life and property, directly impacting, for the better, the lives of all nearby residents.

No adverse impacts to the safety or accessibility of the roads in the area are anticipated. However, construction activities could present safety risks to those performing the activities. To minimize risks to human safety and health, all construction activities would be performed by qualified personnel trained in the proper use of the appropriate equipment and all appropriate safety precautions. Additionally, all activities would be conducted in a safe manner in accordance with the standards specified in OSHA

regulations.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

The impact to public safety and security would be beneficial from this alternative since it would link all emergency first responders and elevate the level of coordination during emergencies of all types. It is anticipated that, once implemented, the project may result in a decreased loss of life and property, directly impacting, for the better, the lives of all nearby residents.

No adverse impacts to the safety or accessibility of the roads in the area are anticipated. However, construction activities could present safety risks to those performing the activities. To minimize risks to human safety and health, all construction activities would be performed by qualified personnel trained in the proper use of the appropriate equipment and all appropriate safety precautions. Additionally, all activities would be conducted in a safe manner in accordance with the standards specified in OSHA regulations.

In order to protect human safety and health, all construction activities would be performed by qualified personnel trained in the proper use of the appropriate equipment and all appropriate safety precautions. Additionally, all activities would be conducted in a safe manner in accordance with the standards specified in OSHA regulations.

3.5 CULTURAL RESOURCES

In addition to the review under NEPA, consideration of impacts to Archeological is mandated under Section 1-6 of the National Historic Preservation Act (NHPA), as amended, and implemented by 36 CFR Part 800. Requirements include identification of significant historic properties that may be impacted by the project. Historic properties are defined as archaeological sites, standing structures, or other historic resources listed in or eligible for listing in the National Register of Historic Places (NRHP) (36 CFR 60.4).

As defined in 36 CFR Part 800.16(d), the Area of Potential Effect (APE) “ is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist.”

In addition to identifying historic properties that may exist in the project’s APE, it must also be determined, in consultation with the appropriate State Historic Preservation Office (SHPO), what effect, if any, the action would have on historic properties. Moreover, if the project would have an adverse effect on these properties, the SHPO must be consulted on ways to avoid, minimize, or mitigate the adverse effect.

3.5.1 Historic Resources Investigation

ATC conducted a review of pertinent literature and relevant records to determine if there are any recorded archeological sites, historic structures, or other features of historic significance located in the project site’s *area of potential effects* (APE) that are listed in the National Register of Historic Places. ATC determined the APE based upon the Preferred Alternatives tower’s height and consultation with the Michigan State Historic Preservation Office. Additionally, an historic field survey of the Preferred Alternative’s APE was conducted to identify additional historic properties. An historic property is defined as any prehistoric or historic district, site, building, structure or object that is greater than 45 years old and is eligible for or is listed in, or eligible for listing in the National Register of Historic Places. Pertinent information from the historic investigation is detailed below.

ATC's review of the National Register Information System (NRIS), which is accessed at <http://www.nationalregisterofhistoricplaces.com/state.html> and the Michigan Historic Landmarks, which is accessed at http://www.michigan.gov/hal/0,1607,7-160-17449_18638_20846----,00.html and the Michigan Sites Online, which is accessed at <http://www.mcgi.state.mi.us/hso> ; information obtained from the aforementioned sources indicates the following structures are located in the historical listings: Dunbar House, 814 State Street, St. Joseph, Berrien County, Michigan (State of Michigan Register of Historical Properties); St. Joseph Public Library, 500 Main Street, St. Joseph, Berrien County, Michigan (State of Michigan Register of Historical Properties); Blossomland Bridge, M-63, St. Joseph Berrien County, Michigan (National Register of Historic Properties); Ninth District Lighthouse Depot, 128 Pier, St. Joseph, Berrien County, Michigan (National Register of Historic Properties); Congregational Church of St. Joseph, 601 Main Street, St. Joseph, Berrien County, Michigan (State of Michigan Register of Historical Properties); Old St. Joseph Historic District, between State and Main Streets and Lake Boulevard, St. Joseph, Berrien County, Michigan (State of Michigan Register of Historical Properties); Fidelity Building, 162 Pipestone, Benton Harbor, Berrien County, Michigan (National Register of Historic Properties); Morton House Indian Hotel, 501 Territorial Road, Benton Harbor, Berrien County, Michigan (State of Michigan Register of Historical Properties).

In addition to the above referenced database searches, ATC's field survey, as well as municipal research and interviews indicates that historic properties eligible for listing on the National Register are located in the Preferred Alternative's APE. Photographs of the project site, the surrounding area and historic properties are located in the appendices of ATC's NEPA Checklist prepared for the Preferred Alternative that is included in Appendix F. The referenced photographs are keyed to a topographic map and show the relationship of the proposed Preferred Alternative site to the historic properties identified. The distance identified in the photo captions is the approximate distance and direction from the proposed site.

ATC did not observe any plaques, signs or other indications of structures of historical significance, except for the historical properties identified during the above referenced database searches. Other historically significant structures and/or architecture were observed in the project's APE and are detailed on the referenced photographs. No current or former significant persons or events were identified in the APE.

Based on its proximity to the Preferred Alternative, the results of the database search for Alternative 2 are virtually identical and the APE is very similar.

Known Indian Religious sites are listed on the National Historic Register; ATC's review did not disclose any known Indian Religious Sites within the APE of the Preferred Alternative or Alternative 2. Initial tribal notification was submitted through the Tower Construction Notification System in order to forward project information, via the FCC, to appropriate Indian Tribes to assist in the identification of historic properties that may be affected by the undertaking within the project's area of potential effects. The Shawnee and Ottawa Tribes of Oklahoma were the only Tribes that indicated an interest in the project site or surrounding APE. Both of these Tribes requested a SHPO determination prior to consultation of the project. It is assumed that due to its proximity, the results were be similar for Alternative 3.

Preferred Alternative – Berrien county Sherriff's Department (Proposed Action)

With the above referenced information, ATC prepared a Section 106 Project Review Request for the Preferred Alternative, which was submitted to the Michigan State Historic Preservation Office (SHPO) in 2009. The initial SHPO determination indicated that the proposed construction would have an "adverse effect" on the Old St. Joseph Historic District, which appeared to be eligible for listing on the National Register.

Further coordination with the SHPO resulted in additional inquires and research on the Preferred

Alternative site. Additionally, Berrien County solicited State Senator Ron Jelinek, whose subsequent letter urged the Michigan SHPO that every consideration be given to expedite this vitally important project. The Record to Date was submitted to the FCC and the Federal Advisory Council on Historic Preservation.

Additional SHPO review of the proposed project resulted in a subsequent site visit and analysis by the SHPO, which led them to retract their original opinion and the effects of the proposed undertaking were determined not to meet the criteria for “adverse effect”. Therefore, the SHPO concluded that the project (Preferred Alternative) would have no adverse effect on the Old St. Joseph Historic District and no further evaluation was required. Refer to Appendix C for the SHPO responses and the Senator’s letter.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

Based upon the location of Alternative 2 near the Preferred Alternative’s parent parcel (the Berrien County Sherriff’s Department), it is assumed that the SHPO findings would be similar.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

The SHPO has not been consulted about historic properties for the Alternative 3, located east of the Preferred Alternative in the neighboring city of Benton Harbor. The alternate sites are located within the Preferred Alternative’s APE and share a relatively similar view shed and an overlapping APE as defined by the Michigan State Historic Preservation Office.

No SHPO consultation was undertaken for this site because the site was determined not to be a viable alternative

3.5.2 Archeological Resources

Archeological resources are defined by the ARPA as any material remains of past human life or activities that are of archeological interest. This definition can apply to pre-contact indigenous (Native American, Native Hawaiian, or Native Alaskan) activity; European exploration and settle; or post-contact settlement, warfare, and land use. Archeological resources are site-specific and are present in a wide variety of habitats with surface features and may be potentially revealed or damaged by construction activities.

Preferred Alternative – Berrien county Sherriff’s Department (Proposed Action)

An Archeological Survey (aka Archeological Report) was conducted for the site, that included a state records review and a field examination of the proposed project area. No previously recorded archaeological sites or evidence of archaeological remains was discovered in the vicinity of the Preferred Alternative. The ground surface of the APE for direct effects was determined to consist of a maintained lawn. Shovel tests at the area of the proposed site indicated that soils in the proposed project area were previously disturbed and consisted of clay loam fill dirt. Additionally, none of the tribes contacted through the FCC’s Tower Construction Notification System (TCNS) system indicated interest or concerns associated with Archeological at the Preferred Alternative. Therefore, based on the fill soils located in the proposed project area and tribal responses, it was determined that there would be no Archeological at the proposed project area to be adverse effected. However, if during construction any evidence of Archeological is discovered, work will be stopped and the appropriate authorities will be notified and consulted prior to continueing construction on-site. Refer to the Archeological Survey Report located in Appendix F.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

No Archeological Survey (aka Archeological Report) was conducted for this site.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

No Archeological Survey (aka Archeological Report) was conducted for this site.

3.5.3 Tribal Religious Sites Investigation

Traditional cultural properties are defined as those resources associated with cultural practices or beliefs of a living community that are historically significant to the community and import to maintaining cultural identity, and are therefore of traditional, cultural, or religious significance. These resources are site specific and common throughout the country and are likely to be encountered in any area of long-term indigenous people habitations.

Preferred Alternative – Berrien County Sherriff’s Department (Proposed Action)

In May 2009, Indian Tribes were notified through the Federal Communications Commission’s (FCC) Tower Construction Notification System (TCNS), in order to request a determination whether or not the Preferred Alternative would affect any Indian Religious Sites or Archeological in the vicinity of the project location to the following tribal organizations: The Prairie Band Potawatomi Nation, the Citizen Potawatomi Nation,, Sac and Fox Tribe of Mississippi, the Huron Potawatomi, the Keweenaw Bay Indian Community, the Pokagon Band of Potawatomi Indians, the Hannahville Indian Community, the Sokaogon Chippewa Community, the Miami Tribe of Oklahoma, the Ottawa Tribe of Oklahoma, the Shawnee Tribe of Oklahoma, the Menominee Indian Tribe of Wisconsin and the Turtle Mountain Band of Chippewa Responses from the Tribes listed above did not indicate any issues with the Preferred Alternative. Consultations with the Ottawa and Shawnee Tribes indicated concurrence that no known historical properties would be impacted. No responses were ever received the Huron Potawatomi, the Hannahville Indian Community the Pokagon Band of Potawatomi Indians or the Hannahville Indian Community; therefore, the Proposed Tower Construction Notification was escalated for referral to the FCC. The FCC sent out a Proposed Construction of Communications Facilities Notification of Final Contact to the nonresponsive tribes and indicated that if no statement of interest regarding a particular project from any Tribe or Native Hawaiian Organizations within 20 days of June 18, 2009, obligations under Section IV of the National Programatic Agreement with regard to these Indian Tribes is complete. No statement of interest has been received to date. Therefore, obligations under Section IV of the National Programatic Agreement is assumed to be complete. Refer to Appendix C for the determinations of the Ottawa and Shawnee Tribes consultation and to Appendix F for the remaining tribal notification and response documentation.

In the event archeological materials, including artifacts and human remains, are encountered during construction, use or maintenance of this tower the interested tribes (noted above) would be notified and consultation would be resumed.

Alternative 2 – Existing Tower, Berrien County Sheriff’s Department

Alternative 2 is located within approximately 150’ of the Preferred Alternative in a previously disturbed area at the same parent parcel address; therefore, it can be reasonably assumed that the Indian tribal responses would be similar for Alternative 2.

Alternative 3 – Benton Harbor Water Tower at 8th and Britain

Indian tribes have not been consulted about Indian Religious Sites or Archeological in the vicinity of Alternatives 3; however, this site is located approximately 5,000' west of the Preferred Alternative, therefore, based on its proximity and its already developed tower compound, it does not appear that the project would not affect any Indian religious site or burial grounds.

3.6 Comparison of Alternatives

| Resource Areas of Concern | No Action Alternative | Preferred Alternative Berrien county Sherriff's Department (Proposed Action) | Alternative 2 (Existing Tower, Berrien County Sherriff's Department) | Alternative 3 (Benton Harbor Water Tower at 8th and Britain) |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description of Alternative | Emergency first responders would continue to have radio communication problems. | The communications compound would be constructed and radios would be purchased allowing Berrien County to join Michigan's MPSCS, in order to achieve interoperability in preparedness for homeland security needs, and improve all emergency first responders' ability to communicate and coordinate activities, which is expected to decrease the loss of life and property in the county. | The communications compound would be constructed and radios would be purchased allowing Berrien County to join Michigan's MPSCS, in order to achieve interoperability in preparedness for homeland security needs, and improve all emergency first responders' ability to communicate and coordinate activities, which is expected to decrease the loss of life and property in the county. | The communications compound would be constructed and radios would be purchased allowing Berrien County to join Michigan's MPSCS, in order to achieve interoperability in preparedness for homeland security needs, and improve all emergency first responders' ability to communicate and coordinate activities, which is expected to decrease the loss of life and property in the county. |
| Geology, Seismicity and Soils | <ul style="list-style-type: none"> No impacts to soils or prime farmland. The geology would not be impacted, and there is a low incidence of seismicity in the area. | <ul style="list-style-type: none"> Temporary soil disturbance during the construction. There are no records of seismic activity for the vicinity of the site. Based on consultation with the NRCS, the site and vicinity are not considered to be prime or unique farmland. | <ul style="list-style-type: none"> Temporary soil disturbance during the construction. There are no records of seismic activity for the vicinity of the site. Based on consultation with the NRCS, the site and vicinity are not considered to be prime or unique farmland. | <ul style="list-style-type: none"> Temporary soil disturbance during the construction. There are no records of seismic activity for the vicinity of the site. Based on consultation with the NRCS, the site and vicinity are not considered to be prime or unique farmland. |
| Water Resources and Water Quality | <ul style="list-style-type: none"> No impacts to water resources or water quality would be anticipated. | <ul style="list-style-type: none"> Minimal and temporary impacts to water resources or water quality are expected. Based on consultation with the NRCS, the site is not located in a coastal zone. | <ul style="list-style-type: none"> Minimal and temporary impacts to water resources or water quality are expected. Based on consultation with the NRCS, the site is not located in a coastal zone. | <ul style="list-style-type: none"> The site is not located near water; therefore, minimal impacts to water resources or water quality are expected. Based on consultation with the NRCS, the site is not located in a coastal zone. |
| Floodplain Management | <ul style="list-style-type: none"> No impacts to floodplains would be anticipated. | <ul style="list-style-type: none"> The site is not located in a floodplain; therefore, no impacts to floodplains are expected. | <ul style="list-style-type: none"> The site is not located in a floodplain; therefore, no impacts to floodplains are expected. | <ul style="list-style-type: none"> The site is not located in a floodplain; therefore, no impacts to floodplains are expected. |

ENVIRONMENTAL ASSESSMENT
Berrien County Area Wide Radio System

| Resource Areas of Concern | No Action Alternative | Preferred Alternative Berrien county Sherriff's Department (Proposed Action) | Alternative 2 (Existing Tower, Berrien County Sherriff's Department) | Alternative 3 (Benton Harbor Water Tower at 8th and Britain) |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Air Quality | <ul style="list-style-type: none"> Impacts to air quality are anticipated to be short term. | <ul style="list-style-type: none"> Dust emissions due to construction may have a temporary impact on local air quality. Construction equipment has the potential to temporarily increase air pollutants of concern. | <ul style="list-style-type: none"> Dust emissions due to construction may have a temporary impact on local air quality. Construction equipment has the potential to temporarily increase air pollutants of concern. | <ul style="list-style-type: none"> Dust emissions due to construction may have a temporary impact on local air quality. Construction equipment has the potential to temporarily increase air pollutants of concern. |
| Terrestrial and Aquatic Environment | <ul style="list-style-type: none"> No impacts to the terrestrial and aquatic environment would be anticipated. | <ul style="list-style-type: none"> Removal of herbaceous vegetative cover in the footprint of the communications compound and the disturbance of the limited herbaceous vegetation, as well as two ornamental trees in the vicinity of the site is anticipated. Habitats associated with species of concern in the area do not exist in the proposed project area. There was no evidence of wildlife in the vicinity of this site; therefore, no impact to terrestrial or aquatic environments is expected. | <ul style="list-style-type: none"> Removal of herbaceous vegetative cover in the footprint of the communications compound and the disturbance of the limited herbaceous vegetation in the vicinity of the site is anticipated. No trees or shrubs will be impacted. There was no evidence of wildlife in the vicinity of this site; therefore, no impact to terrestrial or aquatic environments is expected. | <ul style="list-style-type: none"> Removal of herbaceous vegetative cover in the footprint of the communications compound and the disturbance of the limited herbaceous vegetation in the vicinity of the site is anticipated. No trees or shrubs will be impacted. There was no evidence of wildlife in the vicinity of this site. Therefore, no impact to terrestrial or aquatic environments is expected. |
| Wetlands | <ul style="list-style-type: none"> No impacts to wetland areas are expected. | <ul style="list-style-type: none"> The site is not located in an identified wetland area; therefore, no impacts to wetland areas are expected. | <ul style="list-style-type: none"> The site is not located in an identified wetland area; therefore, no impacts to wetland areas are expected. | <ul style="list-style-type: none"> The site is not located in an identified wetland area; therefore, no impacts to wetland areas are expected. |
| Threatened and Endangered Species / Migratory Birds | <ul style="list-style-type: none"> No impacts to proposed or listed threatened and endangered species are anticipated. | <ul style="list-style-type: none"> Based on the project area consisting of grasses covering fill dirt and the lack of suitable habitat at the | <ul style="list-style-type: none"> No impacts to proposed or listed threatened and endangered species would be expected. | <ul style="list-style-type: none"> No impacts to proposed or listed threatened and endangered species would be expected. |

ENVIRONMENTAL ASSESSMENT
Berrien County Area Wide Radio System

| Resource Areas of Concern | No Action Alternative | Preferred Alternative Berrien county Sherriff's Department (Proposed Action) | Alternative 2 (Existing Tower, Berrien County Sherriff's Department) | Alternative 3 (Benton Harbor Water Tower at 8th and Britain) |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <ul style="list-style-type: none"> No impacts to migratory birds would be anticipated. | <p>project area, impacts to proposed or listed threatened and endangered species or associated habitats would not be expected.</p> <ul style="list-style-type: none"> Based on consultation with the U.S. FWS and the MDNR, no impacts to threatened and endangered species are anticipated to occur. Impacts to migratory birds due to the height (265') of the tower and the required lighting, as well as bird flyway areas are not expected based on consultation with the FWS. Mitigation measures (a small footprint, minimal security lighting, silt fencing and soil stabilization used, suspension of construction during periods of bird activity, etc.) will be taken to reduce impacts to the site. | <ul style="list-style-type: none"> Since this alternative consists of an existing telecommunications compound, no impacts to threatened and endangered species are anticipated to occur. Based on consultation with the U.S. FWS, no impacts to threatened and endangered species are anticipated to occur. Impacts to migratory birds due to the height (265') of the tower and the required lighting are not expected based on consultation with the FWS. Mitigation measures (a small footprint, minimal security lighting, silt fencing and soil stabilization used, suspension of construction during periods of bird activity, etc.) will be taken to reduce impacts to the site. | <ul style="list-style-type: none"> Since this alternative consists of an existing telecommunications compound, no impacts to threatened and endangered species are anticipated to occur. Based on consultation with the U.S. FWS, no impacts to threatened and endangered species are anticipated to occur. Impacts to migratory birds due to the height (265') of the tower and the required lighting are not expected based on consultation with the FWS. Mitigation measures (a small footprint, minimal security lighting, silt fencing and soil stabilization used, suspension of construction during periods of bird activity, etc.) will be taken to reduce impacts to the site. |
| Hazardous Materials and Wastes | <ul style="list-style-type: none"> No environmental database search and review has been conducted, however, no impacts to known hazardous materials or wastes are anticipated. | <ul style="list-style-type: none"> Based on the results of an environmental database search and review, no impacts to known hazardous materials or wastes are anticipated. | <ul style="list-style-type: none"> Based on the results of an environmental database search and review, no impacts to known hazardous materials or wastes are anticipated. | <ul style="list-style-type: none"> No environmental database search and review has been conducted, however, no impacts to known hazardous materials or wastes are anticipated. |
| Zoning and Land Use | <ul style="list-style-type: none"> No impacts would be anticipated. | <ul style="list-style-type: none"> Since the site is currently unimproved and not used for | <ul style="list-style-type: none"> No impacts are anticipated since the site is currently | <ul style="list-style-type: none"> No impacts are anticipated since the site is currently |

ENVIRONMENTAL ASSESSMENT
Berrien County Area Wide Radio System

| Resource Areas of Concern | No Action Alternative | Preferred Alternative Berrien county Sherriff's Department (Proposed Action) | Alternative 2 (Existing Tower, Berrien County Sherriff's Department) | Alternative 3 (Benton Harbor Water Tower at 8th and Britain) |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | <p>any obvious purpose, no impacts to zoning or land use would be expected.</p> <ul style="list-style-type: none"> The site located within the CD-8 – Commercial Office District where the operation of a communications facility is considered an essential service and is deemed compatible with adjacent land uses, impacts to the zoning or land use are not anticipated. | <p>developed with an existing telecommunications tower.</p> <ul style="list-style-type: none"> The site located within the CD-8 – Commercial Office District where the operation of a communications facility is considered an essential service and is deemed compatible with adjacent land uses, impacts to the zoning or land use are not anticipated. | <p>developed with an existing water tower and telecommunications compound</p> |
| Visual Resources | <ul style="list-style-type: none"> No impacts would be anticipated. | <ul style="list-style-type: none"> Careful siting and screening would ensure minimal impacts to visual resources. | <ul style="list-style-type: none"> Careful siting and screening would ensure minimal impacts to visual resources. | <ul style="list-style-type: none"> Careful siting and screening would ensure minimal impacts to visual resources. |
| Noise | <ul style="list-style-type: none"> No impacts would be anticipated. | <ul style="list-style-type: none"> Temporary increase in the ambient noise levels will occur due to the use of construction equipment. | <ul style="list-style-type: none"> Temporary increase in the ambient noise levels will occur due to the use of construction equipment. | <ul style="list-style-type: none"> Temporary increase in the ambient noise levels will occur due to the use of construction equipment. |
| Public Services and Utilities | <ul style="list-style-type: none"> Continued gaps in the public safety radio communications system resulting in the inability for public safety officials to readily communicate with one another are anticipated, thereby threatening the public's safety, which may result in unnecessary loss of lives and property. | <ul style="list-style-type: none"> No adverse impacts to public services and utilities are anticipated. County would join Michigan Public Safety Communication System (MPSCS), which would improve communication between public safety officials. Prepare for homeland security needs and provide interoperability for the entire public safety community. | <ul style="list-style-type: none"> No adverse impacts to public services and utilities are anticipated. County would join Michigan Public Safety Communication System (MPSCS), which would improve communication between public safety officials. Prepare for homeland security needs and provide interoperability for the entire public safety community. | <ul style="list-style-type: none"> No adverse impacts to public services and utilities are anticipated. County would join Michigan Public Safety Communication System (MPSCS), which would improve communication between public safety officials. Prepare for homeland security needs and provide interoperability for the entire public safety community. |

ENVIRONMENTAL ASSESSMENT
Berrien County Area Wide Radio System

| Resource Areas of Concern | No Action Alternative | Preferred Alternative Berrien county Sherriff's Department (Proposed Action) | Alternative 2 (Existing Tower, Berrien County Sherriff's Department) | Alternative 3 (Benton Harbor Water Tower at 8th and Britain) |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Traffic and Circulation | <ul style="list-style-type: none"> No impacts to traffic or circulation would occur. | <ul style="list-style-type: none"> Temporary impacts to traffic during construction phase are anticipated. No permanent impacts to traffic or circulation are anticipated. | <ul style="list-style-type: none"> Temporary impacts to traffic during construction phase are anticipated. No permanent impacts to traffic or circulation are anticipated. | <ul style="list-style-type: none"> Temporary impacts to traffic during construction phase are anticipated. No permanent impacts to traffic or circulation are anticipated. |
| Environmental Justice | <ul style="list-style-type: none"> No impacts to environmental justice would occur. | <ul style="list-style-type: none"> Minority or low-income populations are not concentrated in the project area, and therefore, would not be impacted by the project activities. | <ul style="list-style-type: none"> Minority and low-income populations are concentrated in the project area and would be impacted by the project activities. | <ul style="list-style-type: none"> Minority and low-income populations are concentrated in the project area and would be impacted by the project activities. |
| Historic and Archeological | <ul style="list-style-type: none"> No changes or impacts to the existing historic sites of architectural or archaeological significance, or Tribal Religious Sites are anticipated to occur. | <ul style="list-style-type: none"> Based on consultation with the Michigan State Historic Preservation Office (SHPO), it was determined that the project would have "no adverse effect" on the surrounding area. Shovel tests conducted as part of an archeological survey for the site indicate that the soils of the proposed project area consists of fill material. Based on consultation with local Native American tribes, impacts to known Indian Religious Sites are not anticipated to occur. | <ul style="list-style-type: none"> Based on the location at the same parent parcel as the Preferred Alternative, it may be assumed that the SHPO finding of an "no adverse effect" is anticipated to occur. No shovel tests been undertaken to date for this site, however, based on its location in the same general vicinity of the Preferred alternative, the soils in the vicinity of the existing tower are expected to consist of fill material. Based on consultation with local Native American tribes, impacts to known Indian Religious Sites are not anticipated to occur. | <ul style="list-style-type: none"> A consultation with the Michigan SHPO was not undertaken to date for this site, however, based on its proximity to the proposed project site, no adverse impact to historic properties is expected. No shovel tests were conducted this site, however, based on its development as a water tower, the soils in the vicinity are expected to consist of fill material. Consultation with local Native American tribes has not been undertaken to date for this however, based on its location in the same general vicinity of the other alternates impacts to known Indian Religious Sites are not anticipated to occur. |

4.0 CUMULATIVE IMPACTS

Cumulative impacts are those effects on the environment that result from the incremental effect of the action when added to past, present and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time. Based on the information provided and gathered to date, negative cumulative impacts to the project vicinity are not expected.

However, temporary impacts that could be expected include:

- construction equipment has the potential to temporarily increase air pollutants of concern.
- construction equipment noise has the potential to temporarily increase the ambient noise levels.
- minimal and temporary impacts to water resources or water quality due to storm water runoff.
- Proposed development activities have the potential to result in temporary impacts to traffic during construction phase are anticipated.

Every precaution is being taken to ensure that this project will not result in cumulative negative impacts for Berrien County. The Preferred Alternative is the replacement of an existing tower. Impacts from this action would be short term construction impacts. Regardless of future development in Berrien County, if no action is taken, the public will continue to suffer the consequences of lack of a coordinated first response effort during all emergencies and the continuation of the current level of destruction of property and loss of life. Completion of the proposed project would link all emergency public services and elevate the level of coordination during emergencies of all types. It is anticipated that, once implemented, the project may result in a decreased loss of life and property, directly impacting, for the better the lives of all nearby residents.

5.0 PUBLIC PARTICIPATION

A Public Notice was posted in the May 14 and 15, 2009 editions of the News Herald Palladium soliciting public comments concerning the proposed action for Berrien County at 919 Port Street in St. Joseph, Berrien County, Michigan. According to the 2009 NEPA Screening for the proposed action, no written responses had been received as of October 19, 2009. Public participation was required for in order to obtain zoning approval. Two public meeting were held where questions were answered and according to the local zoning administrator, the parties appeared to be satisfied and there was no opposition or concern expressed regarding the project at the end of either meeting.

A copy of the Public Notice and the Zoning Letter are included in Appendix D. Responses, if any, received from the public are included in Appendix E. However no public comments have been submitted to date at the time this EA was completed on February 12, 2010.

6.0 MITIGATION MEASURES AND PERMITS

This table provides a brief summary of the anticipated permitting and mitigation requirements for the proposed project alternatives.

| Alternatives | <i>Permit/Mitigation Requirements</i> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No Preferred Alternative | <ul style="list-style-type: none"> No permits are required. |
| <p>Preferred Alternative – Berrien county Sherriff’s Department (Proposed Action),</p> <p>Alternative 2 (Existing telecommunications tower, Berrien County Sherriff’s Department) and</p> <p>Alternative 3 (Water Tower, 8th and Britain)</p> | <ul style="list-style-type: none"> The applicant must follow all applicable local, state, and federal laws, regulations, and requirements. They must obtain and comply with all required permits prior to initiating work on the project. No staging of equipment or construction activities shall begin until all permits are obtained. Best management practices such as silt fencing, seeding, mulching, placing of hay or gravel on all exposed soils shortly after disturbance would be used to prevent soil erosion. If project activities include the stockpiling of soil or fill on-site, the project applicant would cover these soils to help prevent fugitive dust and soil erosion. Any excess excavated material would be removed for disposal at an appropriately permitted facility. No material would be deposited in flood plain or wetland areas. To reduce temporary impacts to air quality, the applicant would be required to water down construction areas when necessary. Running time of fuel-burning equipment would be minimized and engines would be maintained to reduce the emission of criteria pollutants. Any hazardous materials discovered, generated, or used during implementation of the proposed project would be disposed of and handled by the county in accordance with applicable local, state, and federal regulations. Careful siting of the tower would ensure compatibility with adjacent uses and minimize visual impacts. All construction activities would be conducted by trained personnel in compliance with the standards and regulations of OSHA to protect worker safety. If artifacts or human remains are encountered during construction, work in the vicinity of such artifacts and/or human remains would be discontinued, and the applicant would immediately notify USDOC and the SHPO, as well as the local authorities, if necessary. A NEPA Checklist and a regulatory database review will be completed for the other alternate, if necessary. |

The permitting procedures were still in process at the time this report was completed. Zoning was addressed at an August 3, 2009 City Commission at which time a special use permit for a telecommunications tower at 919 Port Street was approved. Refer to the Letter from the Zoning Administrator in Appendix D.

7.0 CONSULTATIONS AND REFERENCES

The following agencies were consulted during the preparation of this Environmental Assessment:

Federal Agencies Consulted:

U.S. Department of the Interior, Fish and Wildlife Service

Natural Resources Conservation Service (NRCS)

Federal Communications Commission's Tower Construction Notification System (TCNS)

State, City and Local Agencies Consulted:

City of St. Joseph Assessing Department

City of St. Joseph Zoning Department

City of St. Joseph Building Department

City of Benton Harbor Assessing Department

City of Benton Harbor Zoning Administrator

City of Benton Harbor Community Development Department

Berrien County Equalization Department

Berrien County GIS Department

Berrien County Drain Commission

Michigan Department of Natural Resources

Michigan State Historic Preservation Office

Michigan Department of Environmental Quality

Tribal Notifications/Consultations:

Prairie Band Potawatomi Nation

Citizen Potawatomi Nation

Sac and Fox Tribe of Mississippi

Huron Potawatomi

Keweenaw Bay Indian Community

Pokagon Band of Potawatomi Indians

Hannahville Indian Community

Sokaogon Chippewa Community

Miami Tribe of Oklahoma

Ottawa Tribe of Oklahoma

Shawnee Tribe of Oklahoma

Turtle Mountain Band of Chippewa

Distribution List

Dave Agens, Director and 911 Administrator, Berrien County

John Tabor, Program Manager, Motorola, Inc.

T. J. Sauthoff, Project Manager, Pyramid Network Services, LLC

Kevin Glardon, Project Manager, Pyramid Network Services, LLC

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United States Fish & Wildlife Service (USFWS), National Wetlands Inventory Maps, accessed July 2, 2009 <http://www.fws.gov/wetlands/data/index.html>

United States Department of the Interior, U.S. Geological Survey, Earthquake Hazard Program accessed July 2, 2009 http://earthquake.usgs.gov/regional/states/seismicity/us_east_seismicity.php

United States Fish & Wildlife Service (USFWS) John H. Chafee Coastal Barrier Resources System, Michigan, http://www.fws.gov/habitatconservation/State_Locator_Maps/Small_MI.pdf
accessed July 7, 2009.

FEMA Mapping Center

<http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1> accessed June 1, 2009 and July 8, 2009

Endangered species, Michigan, County distribution

<http://www.fws.gov/midwest/Endangered/lists/michigan-cty.html>, accessed July 8, 2009

8.0 INTERVIEWS

Dave Agens
Director and 911 Administrator, Berrien County
2100 E. Empire
Benton Harbor, Michigan 49022
269-983-7111 ext. 4958

No information available.

Patrick Sweeney
Director of Building and Grounds Berrien County
811 Port Street
St. Joseph, MI 49085
269-983-7111, ext. 8602

No information available.

John A. Tabor
Program Manager
Motorola, Inc.
429 Rapidan Drive
Lansing, Michigan 48917
(517) 323-9891

Mr. Tabor is the program manager for this project and has over 20 years of experience with Motorola. He has served as program manager with Motorola for 14 years on a multitude of projects and has overall management responsibilities for this program. He has an extensive background in management, planning, procurement, and construction management.

T. J. Sauthoff
Project Manager
Pyramid Network Services, LLC
3805 Floral Avenue
Norwood, OH 45212
404-788-2609

Mr. Sauthoff is the project manager for the site development portion of this project and has over 10 years of experience in the wireless telecommunications industry. He has served as a project manager for Pyramid for 6 years on both commercial and public projects. He has extensive background in pre-construction site development such as leasing, zoning, design and due diligence as well as some background in construction and construction management.

Kevin Glardon
Project Manager
Pyramid Network Services, LLC
941 Dillon Way
Suite B
Lebanon, OH 45036

Mr. Glardon is a project manager associated with the site development portion of this project and has several years of experience in the wireless telecommunications industry. He has served as a project

manager for Pyramid on both commercial and public projects. He has background in pre-construction site development such as leasing, zoning, design and due diligence as well as some background in construction and construction management.

ATC Associates Inc.

Lynn McDonald
Environmental Scientist
ATC Associates Inc.
46555 Humboldt Drive
Novi, MI 48377

Ms. McDonald is an environmental scientist for ATC Associates Inc. She has conducted ASTM transaction screens, and Phase I Investigations including site reconnaissance, asbestos identification, radon and lead surveys, investigation of surrounding properties, regulatory agency record examination and analysis, and property risk evaluation.

Susan Cook, Senior Project Manager
ATC Associates Inc.
46555 Humboldt Drive
Novi, MI 48377

Ms. Cook is a Senior Project Manager and the Phase I ESA Department Manager for ATC Associates Inc. She has conducted and/or managed over 1,000 Section 106/NEPA-related projects over the past 12 years. She has managed and conducted Environmental Assessments for government funding related projects (i.e. FEMA/DHS, COPS, U.S. Department of Health and Human Services' Health Resources and Services Administration (HRSA), ASTM Transaction Screens, and Phase I investigations including site reconnaissance, asbestos identification, mold radon and lead surveys, investigation of surrounding properties, regulatory agency record examination and analysis, property risk evaluation, and report development.