

National Park Service
United States Department of the Interior

Death Valley National Park
California and Nevada



Environmental Assessment

Commnet Cell Service Proposal for Stovepipe Wells November 2014



ON THE COVER

View of Stovepipe Wells Village
Death Valley National Park

ENVIRONMENTAL ASSESSMENT

Commnet Cell Service Proposal for Stovepipe Wells



National Park Service

Death ValleyNational Park
California and Nevada

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National Park Service
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Death Valley National Park
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SUMMARY

Commnet of Nevada LLC (hereafter referred to as Commnet) has submitted a right-of-way application to the Death Valley National Park Service (hereafter referred to as NPS or the Park) to provide cellular telephone service to the residents in and visitors to Stovepipe Wells in Death Valley and surrounding areas. The NPS will consider this request in accordance with the Telecommunications Act of 1996 which authorizes, but does not mandate, that requests for new telecommunications sites be granted. An Environmental Assessment is being prepared under the National Environmental Policy Act to analyze the proposal for cellular service. The environmental impacts of the proposal and the No-Action alternative are included in this Environmental Assessment.

Notes to Reviewers and Respondents

If you wish to comment on the environmental assessment, you may mail comments to the name and address below. Our practice is to make comments, including names and home addresses of respondents, available for public review. Individual respondents may request that we withhold their home address from the record, which we will honor to the extent allowable by law. *If you want us to withhold your name and address, you must state this prominently at the beginning of your comment.* We will make all submissions from organizations and businesses, as well as from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety.

To Comment on this Document

Electronic comments may be provided at the National Park Service Planning, Environment, and Public Comment (PEPC) website at:

<http://parkplanning.nps.gov/projectHome.cfm?parkID=297&projectID=46345>.

Hard copy comments should be mailed to: Superintendent; Death Valley National Park; Attn: Commnet Cell Service Proposal for Stovepipe Wells; PO Box 579; Death Valley, CA 92328

**COMMNET CELL SERVICE PROPOSAL FOR STOVEPIPE WELLS
NATIONAL PARK SERVICE**

ENVIRONMENTAL ASSESSMENT

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ACRONYMS AND ABBREVIATIONS

APE	Area of Potential Effect
BLM	Bureau of Land Management
CDFW	California Department of Fish and Wildlife
CFR	Code of Federal Regulations
CNPS	California Native Plant Society
EA	environmental assessment
FMP	Fire Management Plan
KOP	Key Observation Point
m	meter(s)
NEPA	National Environmental Policy Act of 1969, as amended
NHPA	National Historic Preservation Act of 1966, as amended
NPS	National Park Service
NRHP	National Register of Historic Places
SHPO	State Historic Preservation Office(r)
SR	State Route
THPO	Tribal Historic Preservation Office(r)
USC	United States Code
USFWS	U.S. Fish and Wildlife Service

ENVIRONMENTAL ASSESSMENT

Chapter 1: Purpose and Need, Project Background, and Impact Topics

INTRODUCTION

Commnet of Nevada LLC (hereafter referred to as Commnet) has submitted a right-of-way application to the Death Valley National Park Service (hereafter referred to as NPS or Park) to provide cellular telephone service to the residents in and visitors to Stovepipe Wells in Death Valley and surrounding areas. The NPS will consider this request in accordance with the Telecommunications Act of 1996 which authorizes, but does not mandate, that requests for new telecommunications sites be granted. The NPS is conducting an environmental assessment under the National Environmental Policy Act to analyze this proposal for cellular service.

The Commnet proposal is in regards to placing a new 60-foot "Lite Site" tower on previously disturbed land at Stovepipe Wells, in close proximity to an existing telecommunications tower managed by AT&T/Pacific Bell Telephone Company (AT&T). Pursuant to National Park Service Management Policies, the NPS has requested the new facilities be co-located on the existing telecommunications tower. AT&T has formally reviewed and denied this request from the NPS and Commnet because of present and future capacity requirements. In addition to the new tower, Commnet proposes placing radio cabinets outside and adjacent to the tower. The equipment would be contained within a 20' x 30' fenced facility. Commnet would connect this cellular facility to adjacent commercial electrical power via underground conduit, which would require approximately 200 feet of trenching in previously disturbed areas. Under the proposal, adjacent disturbed areas would be used for construction sequencing comprising approximately 50' x 50'. The NPS plans to examine the entire proposal in the context of all existing and reasonably foreseeable telecommunications facilities in the Stovepipe Wells area in order to accurately assess impacts to all associated resources.

The environmental assessment (EA) analyzes the preferred alternative and other alternatives and their potential impacts on the environment and has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, and regulations of the Council on Environmental Quality (40 *Code of Federal Regulations* (CFR) 1508.9); NPS Director's Order 12: *Conservation Planning, Environmental Impact Analysis, and Decision-making*; and the National Historic Preservation Act (NHPA) of 1966, as amended.

PURPOSE AND NEED FOR ACTION

Commnet has submitted a right-of-way application to the NPS to provide cellular telephone service to residents in and visitors to Stovepipe Wells in Death Valley and surrounding areas. The purpose of this environmental assessment is to:

- Consider Commnet's request in accordance with the Telecommunications Act of 1996 (47 USC 332 note) which authorizes, but does not mandate, a presumption that such requests be granted;
- Understand, characterize, and analyze the environmental impacts of Commnet's request to fully inform the decision on whether or not to grant the right-of-way application.

The environmental assessment is needed because:

- Consideration must be given under NPS Management Policies as to whether or not the proposal would cause unavoidable conflict with the Park's mission, in which case the permit would be denied;
- Consideration must be given under NPS Management Policies to the potential benefit of having telephone access for emergency law enforcement and public safety services;
- Consideration must be given to the proposed project's location and its impact on Park resources and values; and
- Consideration must be given to existing telecommunication facilities, cumulative impacts, the potential for co-location, and future needs and capacity for the Stovepipe Wells area.

PROJECT BACKGROUND, PREVIOUS PLANNING, AND SCOPING

Previous Planning

In 2002, the NPS completed a General Management Plan (GMP) for the approximately 3.4 million acres managed by the NPS within Death Valley National Park. In the Summary of Plan Actions section, the subject of viewshed and cellular/communication equipment was referenced under Air Quality and Viewsheds.

The GMP provided the following summary of plan actions for viewsheds under the resource topic of Air Quality:

- Prepare guidelines for developed areas to create harmony between the built environment and the natural environment.
- Implement objectives for communications equipment proposals.

Under the resource topic of Viewsheds, the GMP stated the following summary of plan actions for cellular communication equipment:

“Plan Actions

The Park will prepare guidelines for the developed areas. These guidelines will be prepared to establish visual consistency and themes in facility development. Guidelines will also be created for reaching visual compatibility with surrounding landscapes, significant architectural features, and site details. The primary objective of guidelines will be to create harmony between the built environment and the natural environment.”

With the increasing use of cellular communication equipment, more antennas and relay equipment are being installed throughout the country. The overall management goal of each NPS unit will be to protect and maintain the visual quality of the landscape and the built environment. The Park will implement the following objectives for communications equipment proposals:

- All above-ground communication equipment should not significantly distract from the visual quality of the scenery;
- Each new proposal for radio or cellular antennas or towers must demonstrate the equipment will provide a critical service for visitors and NPS staff and is not duplicative;
- The installation of new equipment outside the Park on existing communication towers or at defined sites should be considered before the construction of new sites in the Park are considered; and,
- New locations will be reviewed through the environmental assessment process, which must consider impacts on the visual quality of the scenery.

The Park’s interdisciplinary team examined the potential impacts of the proposed Commnet Cellular project in July 2012, and made recommendations regarding potential impacts and impact topics that needed to be addressed in the preparation of the environmental assessment.

Scoping

The Park informed the Timbisha Shoshone Tribal Historic Preservation Office(r) (THPO) of the project on March 5, 2013 at the Park’s Environmental Review Committee meeting. At the July 17, 2013 Park and Tribe Quarterly meeting, both the THPO and the Tribal Administrator were updated on the project. In general, the Tribe had no objections with the project at that time.

The Park followed up with a formal scoping letter on August 8, 2013 to the Chairman and THPO of the Timbisha Shoshone Tribe, the State Historic Preservation Office(r) (SHPO), and the U.S. Fish and Wildlife Service (USFWS). Neither the SHPO nor the Timbisha tribe provided comments. The USFWS response stated there are no federally listed, proposed, or candidate species, nor their critical habitats, known to exist in the project area. The USFWS also provided a copy of the 2013 USFWS Revised Guidelines for Communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning. All agency letters and responses are included in Appendix A to this document.

A press release initiating public scoping and describing the proposed action was issued on August 8, 2013, and public comments were solicited via the Park’s mailing list and the NPS

Planning, Environment and Public Comment website during a public scoping period that ended September 10, 2013. Nine comments were received. Seven commenters generally supported the project from the standpoint of enhancing visitor experience, aiding in public safety and emergencies, as well as assisting communications with Park staff. Two commenters were against adding cell service in the Park because the cell service would lessen the unique experience in Death Valley and they preferred the sense of isolation. One commenter felt the idea was worthy, but wanted a better image of what the visual impacts would be first.

The public and appropriate agencies will have an opportunity to review and comment on this environmental assessment. Also, see the “Consultation and Coordination” Section of this document.

ISSUES AND IMPACT TOPICS

Issues

Issues and concerns affecting this proposed action were identified by the NPS interdisciplinary team and agency and from public input during the scoping process. Important issues identified include potential impacts to soils, wildlife, wilderness, park operations, visual resources, special status species, visitor use and experience, health and safety, and cultural resources (archeological structures and historic structures).

NEPA requires the consideration of impacts on affected ecosystems and is the basic national charter for protection of the environment (CEQ Part 1500). NEPA requires federal agencies to use all practicable means to restore and enhance the quality of the human environment and to avoid and minimize any possible adverse effects of their actions on the environment. The preferred alternative would minimize impacts to natural and cultural resources, while enhancing long-term ecosystem health. Issues and mitigation measures are included in the rationale for selection of impact topics for further consideration or for dismissal from further consideration per the ensuing discussion.

Derivation of Impact Topics

Specific impact topics were developed to focus the discussion and allow comparison of the environmental consequences of each alternative. These impact topics were identified based on federal law, regulations, executive orders, NPS *Management Policies 2006*, and NPS knowledge of special or vulnerable resources. A brief rationale for the selection of each impact topic is given below, as well as the rationale for dismissing specific topics from further consideration.

IMPACT TOPICS SELECTED FOR DETAILED ANALYSIS

Soils

The proposed action involves site preparation activities for the installation of the tower and trenching activities associated with electrical connection from the tower to the nearest electrical power source for a distance of approximately 200 feet. The soil in the Stovepipe Wells project area is Quaternary alluvium (sand and gravel) of the Mosaic Canyon alluvial fan. Soils could also be impacted through disturbance during proposed project activities, runoff during construction of proposed project activities, and potential short-term loss through erosion. Soils are therefore addressed as an impact topic in this environmental assessment.

Wildlife

NPS policy is to protect the components and processes of naturally occurring biotic communities, including the natural abundance, diversity, and ecological integrity of plants and animals (NPS 2006). The proposed project could have direct impacts to wildlife with the construction and operation of the proposed project. Wildlife is therefore addressed as an impact topic in this environmental assessment.

Special Status Species

The Endangered Species Act (1973), as amended, requires an examination of impacts on all federally listed threatened or endangered species. NPS policy also requires examination of the impacts on federal candidate species, as well as state listed threatened, endangered, candidate, rare, declining, and sensitive species. Based on consultation with the USFWS, there are no federally listed threatened, endangered, or candidate species in the immediate project area. The USFWS was concerned, however, about the potential effect the proposed project would have on migratory birds. Because of these potential indirect effects to rare or special status wildlife species, special status species are addressed as an impact topic in this environmental assessment.

Wilderness

The Wilderness Act (1964) and NPS policy require an examination of whether an action occurring in federally designated wilderness that includes mechanized equipment or installations meets the minimum requirements necessary for the administration of that area as wilderness. Degradation of wilderness is prohibited, and no federal management actions may be taken which are not essential for managing a designated area as wilderness. In addition, NPS policy requires an examination of impacts from a proposed action to wilderness character if the proposed action is occurring in or adjacent to federally designated wilderness.

The proposed action would occur in the Stovepipe Wells area which is a non-wilderness developed area surrounded on all sides by hundreds of thousands of acres of designated wilderness. Because of the potential effect of the project on wilderness, this impact topic is therefore addressed in the environmental assessment.

Cultural Resources

The NPS has decided to combine Archeological Resources and Historic Structures into one combined impact topic because of the inter-relationship and commonality to the proposed action.

Archeological Resources

The National Historic Preservation Act (16 *United States Code* [USC] 470 et seq.), National Environmental Policy Act, NPS Organic Act, NPS *Management Policies 2006*, Director's Order 12: *Conservation Planning, Environmental Impact Analysis, and Decision-making*, and Director's Order 28: *Cultural Resource Management* require the consideration of impacts on cultural resources, including archeological resources, either listed or eligible for listing in the national register. While there are no archeological resources identified at the proposed site of construction, the project is located in the vicinity of Stovepipe Wells Hotel Historic District. While the Hotel is ineligible for listing on the National Register of Historic Places, the project is still located within the viewshed of the former Eichbaum Toll Road, which has been designated as a California State Historical Landmark. Cultural resources are therefore addressed as an impact topic in this environmental assessment.

Historic Structures

The National Historic Preservation Act (16 USC 470 et seq.), National Environmental Policy Act, NPS Organic Act, NPS *Management Policies 2006*, Director's Order 12, and Director's Order 28 require consideration of impacts on cultural resources, including historic structures. According to Director's Order 28, structures are constructed items built to serve human activity and include buildings, roads, dams, canals, bridges, defense works, mounds, ruins, etc.

Visitor Use and Experience

Under the proposed action, long-term impacts to visitor use and experience would be expected during project implementation in the form of increased cell coverage in the immediate vicinity of Stovepipe Wells which would provide increased communication capability and also improve safety because of better communication for emergency response. This could either enhance visitors' experiences and safety in the Park by having additional communication access or for some visitors being distracted from their experience by providing additional communication access. Visitor use and experience is therefore addressed as an impact topic in this environmental assessment.

Health and Safety

The proposal for the cell tower could enhance safety in the Park by increasing the cell phone coverage area. This coverage would help primarily in the Stovepipe Wells Area, along a portion of Scotty's Castle Road, and some of the area (Mud Canyon) along the road to Beatty

(Daylight Pass Road). This could enhance visitors' experiences and safety in the Park by having additional communication access. Additional cell phone coverage could reduce the time for emergency response to accidents or emergencies in remote areas that presently do not have cell phone coverage. In addition, the coverage could also reduce the response time for notification of resource violations. At the present time, by the time a violation is reported the offender is usually gone before Park Rangers can respond. Health and safety is therefore addressed as an impact topic in this environmental assessment.

Visual Resources

Death Valley National Park is the largest National Park System unit in the contiguous 48 States and dedicates itself to protecting significant desert features that provide world class scenic, scientific, and educational opportunities for visitors and academics to explore and study. Death Valley is also very unique in that 91% of the Park is designated as wilderness. The extremely colorful, complex, and highly visible geology and steep, rugged mountains and canyons provide some of the most dramatic visual landscapes in the United States. Under the proposed action, the cell tower would be constructed in Stovepipe Wells Village near an existing AT&T communication tower. The potential impact of the proposed action to visual resources compatibility with surrounding landscapes in the Park is very important and needs to be addressed as an impact topic in the environmental assessment.

Park Operations

Effects of the proposed action on park operations could be significant. Enhanced communication between Park staff and enforcement staff could facilitate and increase efficiencies associated with park operations management. Park operations is therefore addressed as an impact topic in the environmental assessment.

IMPACT TOPICS DISMISSED FROM DETAILED ANALYSIS

Impact topics for this project have been identified on the basis of federal laws, regulations, and orders; NPS *Management Policies 2006*; and NPS knowledge of resources at Death Valley National Park. In this section of the environmental assessment, the National Park Service provides an evaluation and explanation as to why some impact topics are not evaluated in more detail. In general, impact topics are dismissed from further evaluation in this environmental assessment if:

- They do not exist in the analysis area;
- They would not be affected by the proposal, or the likelihood of impacts are not reasonably expected; or
- Through the application of mitigation measures, there would be minor or less effects from the proposal, and there would be no controversy on the subject or any other extraordinary circumstances to include the topic.

Designated Critical Habitat, Wild and Scenic Rivers, and Other Unique Natural Areas

No areas within the proposed project area are designated as critical habitat or ecologically critical, nor are there any existing or potential wild and scenic rivers within the project area, or which receive runoff from the project site. Death Valley is an important natural area; however, the proposed action would not threaten the associated qualities and resources that make the Park unique. These topics were therefore dismissed from detailed analysis in this environmental assessment.

Wetlands, Riparian Vegetation, and Floodplains

Executive Order 11988, “Floodplain Management”, requires an examination of impacts to floodplains and the potential risk involved in placing facilities within floodplains. NPS *Management Policies 2006*, Director’s Order 2: *Planning Guidelines*, and Director’s Order 12: *Conservation Planning, Environmental Impact Analysis, and Decision-making* provide guidelines for proposed actions in floodplains. The proposed action would not occur in a floodplain; therefore, floodplains were dismissed from detailed analysis in this environmental assessment.

Executive Order 11990, “Protection of Wetlands”, requires an examination of impacts to wetlands. There are no identified wetlands or riparian habitat at the project site; therefore, wetlands were dismissed from detailed analysis in this environmental assessment.

Prime and Unique Farmlands

In 1980, the Council on Environmental Quality directed federal agencies to assess the effects of proposed actions on farmland soils classified as prime or unique by the U.S. Department of Agriculture, Natural Resources Conservation Service. Prime and unique farmlands are defined as soil, which particularly produces general crops (i.e., common foods, fiber, and oil seed) and specialty crops (i.e., fruits, vegetables, and nuts). There are no areas or soils where unique crops are produced within Death Valley National Park; therefore, the topic of prime and unique farmlands, was dismissed from detailed analysis in this environmental assessment.

Water Resources

The 1972 Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977, is a national policy to restore and maintain the chemical, physical, and biological integrity of U.S. waters; to enhance the quality of water resources; and to prevent, control, and abate water pollution. NPS *Management Policies 2006* provide direction for the preservation, use, and quality of water in National Park System units. There are no surface water resources in the immediate vicinity of the proposed project. Temporary erosion could occur with construction activities, which is discussed under the soils impact topic. Water quality was therefore dismissed from detailed analysis in this environmental assessment.

Vegetation

NPS policy is to protect the components and processes of naturally occurring biotic communities including the natural abundance, diversity, and ecological integrity of plants and animals (NPS 2006). The proposed location for this project is within a highly altered desert shrub community. There is no vegetation within the project site and only one creosote bush plant located along the electrical interconnection route. As there are no significant impacts to vegetation, this impact topic was dismissed from detailed analysis in the environmental assessment.

Socioeconomics

The proposed action would not change local or regional land use, necessarily increase tourist visitation, or increase revenues in the Stovepipe Wells area. The impacts of the proposed action in the context of the socioeconomics inside Death Valley National Park would be minimal. Socioeconomics was therefore dismissed from detailed analysis in this environmental assessment.

Air Quality

The 1963 Clean Air Act, as amended (42 USC 7401 et seq.), requires land managers to protect air quality. Section 118 of the Clean Air Act requires parks to meet all federal, state, and local air pollution standards. Section 176(c) of the 1963 Clean Air Act requires all federal activities and projects to conform to state air quality implementation plans to attain and maintain national ambient air quality standards. NPS *Management Policies 2006* address the need to analyze potential impacts to air quality during park planning. Death Valley National Park is classified as a class II “floor” air quality area under the Clean Air Act, as amended, which means it may never be redesignated to class III (NPS 2002). The project area is in the Great Basin Unified Air Pollution Control District, as established by the State of California. This district is classified as a California state nonattainment area for particulate matter (fine dust) less than 10 microns in diameter. The general trend in upper air movement carries pollutants to the Park from metropolitan areas, industrial areas, and transportation corridors to the west. In the summer, surface winds flow from the southwest, where sources that contribute to air pollution in the Park include major population centers, industrial areas, and a dry lakebed. In winter, surface winds flow from the northeast. Because northeast winds comprise an air mass that originates in less developed areas, the air quality of the Park is generally better in the winter (NPS 2003).

Construction activities associated with site preparation for the proposed project could result in minor emissions which could release a small amount of airborne particulates in the area. As the emissions would be minor and short-term, air quality was therefore dismissed from detailed analysis in this environmental assessment.

Environmental Justice

Executive Order 12898, “General Actions to Address Environmental Justice in Minority Populations and Low-income Populations,” requires all agency missions to incorporate environmental justice by identifying and addressing disproportionately high and adverse human health or environmental effects of agency programs and policies on minorities and low-income populations or communities. No alternatives under consideration would have health or environmental effects on minorities or low-income populations or communities as defined in the Environmental Protection Agency’s *Draft Environmental Justice Guidance* (July 1996). Environmental justice was therefore dismissed from detailed analysis in this environmental assessment.

Museum Objects

Museum collections include historic artifacts, associated records and archives, natural specimens, and archival and manuscript material contained in collections held by the Park in designated storage or display areas. The preservation of museum collections is an ongoing process of preventive conservation, supplemented by conservation treatment, when necessary. The primary goal is preservation of artifacts in as stable condition as possible to prevent damage and minimize deterioration. The proposed project would not affect any designated storage or display areas for museum objects of Death Valley National Park; therefore, museum objects were dismissed from detailed analysis in this environmental assessment.

Indian Trust Resources

Secretarial Order 3175 requires that any anticipated impacts to Indian trust resources from a proposed project or any action by Department of the Interior agencies be explicitly addressed in environmental documents. The federal Indian trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and represents a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes. There are no Indian trust resources in the project area of the proposed action. In addition, the Park informed the Timbisha Shoshone Tribal Historic Preservation Officer of the project on March 5, 2013 at the Park’s Environmental Review Committee meeting. At the July 17, 2013 Park and Tribe Quarterly meeting, both the THPO and the Tribal Administrator were updated on the project. In general, the Tribe has no objections with the project. Indian trust resources were therefore dismissed from detailed analysis in this environmental assessment.

Soundscapes

In accordance with NPS *Management Policies 2006* and Director’s Order 47: *Sound Preservation and Noise Management*, an important part of the NPS mission is preservation of natural soundscapes associated with National Park System units. Natural soundscapes exist in the absence of human-caused sound. The natural ambient soundscape is the aggregate of all the natural sounds that occur in National Park System units, together with the physical capacity for transmitting natural sounds. These natural sounds occur within and beyond the range of sounds

that humans can perceive and can be transmitted through air, water, or solid materials. The frequency, magnitude, and duration of human-caused sound considered acceptable varies among National Park System units, as well as potentially throughout Death Valley National Park and is generally greater in developed areas and less in undeveloped areas. Noise associated with construction activities would be short-term and localized, with negligible effects. Soundscapes were therefore dismissed from detailed analysis in this environmental assessment.

Dark Night Skies

In accordance with NPS *Management Policies 2006*, the National Park Service strives to preserve dark night skies, which are natural resources that exist in the absence of human-caused light. Death Valley National Park has been designated an International Dark Sky Park because of the superb quality of its night sky resources. Construction and operation of the proposed project would not add to an increase in nighttime lighting or degrade Death Valley National Park's dark night skies; therefore, dark night skies were dismissed from detailed analysis in this environmental assessment.

Chapter 2: Alternatives

The Alternatives section describes two management alternatives for the Commnet Cell Service Proposal for Stovepipe Wells Death Valley National Park. Alternatives for this project were developed primarily to evaluate the overall cellular telephone communication needs of Park visitors while working to avoid adverse impacts to wilderness character, natural resources, cultural resources, public safety, and visitor use and experience.

Alternative A - or the No-Action Alternative - describes the action of continuing the present telephone communication system in the Park. The No-Action Alternative further provides a basis for comparing the existing cellular communication system and environmental consequences of the Preferred Alternative. Should the No-Action Alternative be selected, the existing telephone communication system would continue.

The preferred alternative - Alternative B - presents the Commnet proposed action to provide cellular telephone service to residents and visitors in Stovepipe Wells and surrounding areas. A description of the potential environmental impacts associated with the construction and operation of the proposed cell tower is provided. Alternatives considered and dismissed from detailed analysis and a summary table comparing the environmental consequences of each alternative completes this environmental assessment section.

ALTERNATIVE A: NO-ACTION ALTERNATIVE

Under the No-Action Alternative, the right-of-way application for construction of the Commnet Cell tower would be denied which would result in the continuation of existing telephone conditions for Stovepipe Wells and the surrounding areas. Should the No-Action Alternative be selected, the National Park Service could still have to respond to future requests for cellular telephone service.

The current conditions of the ecosystem and viewsheds in the Stovepipe Wells area would continue under the No-Action Alternative. Current telephone service would continue, including areas without telephone service that potentially impacts time for emergency and park violations response.

ALTERNATIVE B: PREFERRED ALTERNATIVE

Introduction

The NPS is evaluating a right-of-way application submitted by Commnet. The application proposes to provide cellular telephone service to residents and visitors in Stovepipe Wells and surrounding areas. The proposed cellular service would be in the 850 Mhz and 1900 Mhz ranges, with both CDMA and GSM systems, allowing many wireless customers to use the roaming service.

The proposed site is within Stovepipe Wells and would be co-located with other existing buildings and communication structures. (See Project Location and Vicinity Map Plan - Figures 1 and 2.) The site is in a developed non-wilderness Park area, and currently contains one tower operated by AT&T and several small buildings used for associated telephone and electrical equipment. Commnet proposes placing a new 60' self-supporting "Lite-Site" tower for its exclusive use. In addition, Commnet proposes placing radio cabinets adjacent to the tower and a 4 - 6' diameter dish that will connect the cellular system to the ground telephone system provided by AT&T. Commnet would connect this cellular facility to adjacent commercial electrical power via underground conduit. A small additional foundation would be installed in the event a microwave connection can be established to link to the ground system in the future.



Figure 1. Project Site Location at Stovepipe Wells

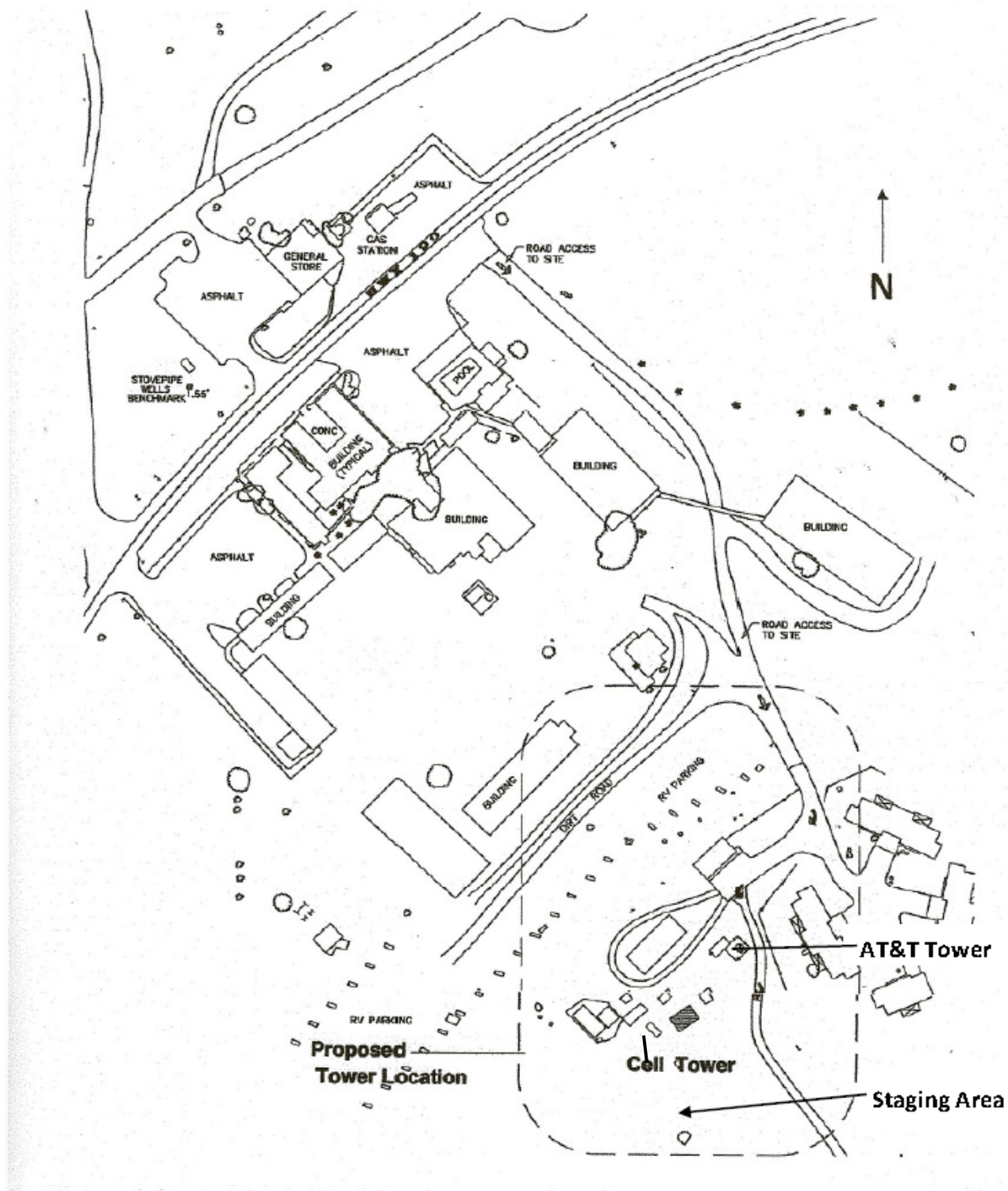


Figure 2. Vicinity Map of Stovepipe Wells and Proposed Tower Location

The facility would be contained within a requested 20' x 30' fenced area. Commnet would connect this cellular facility to adjacent commercial electrical power via underground conduit which would require approximately 200 feet of trenching in previously disturbed areas. Commnet anticipates construction would take less than 30 days and the system would operate immediately upon completion. The service would operate 24 hours a day, 7 days a week. Commnet requests an adjacent, previously disturbed area to be used for construction sequencing, approximately 50' x 50' (See Figure 3 for Site Plan).

Alternative Tower Heights

Commnet Wireless is proposing a telecommunications facility near Stovepipe Wells, CA, with a tower height of 60'. This height was determined to meet the coverage objectives of the area through propagation analysis, terrain analysis, and site visits. The main coverage objectives of the site are to cover the buildings near the site, and as much of State Highway 160 and surrounding highways and roads as possible.

When choosing a site location for coverage, Commnet Wireless preferred to co-locate on existing structures, such as other telecommunications facilities or tall buildings. If there are no co-locatable towers within the preferred area and no buildings tall enough to meet coverage objectives, then a new site location is pursued.

Three heights were reviewed for this location – 40', 60', and 150'. From the 40' height, much of the surrounding highways, including key portions of State Highway 160, North Highway, and Daylight Pass Road were not covered. The area covered at this height would be approximately 25% less than the area covered by the proposed cell tower at a 60' height and would not provide cell phone coverage to high visitor use areas in Death Valley National Park.

At the 60' height, the highways would be receiving better coverage, providing a better overall customer experience in the area and covering more of the high visitor use areas of State Highway 160, North Highway, and Daylight Pass Road.

Commnet Wireless also reviewed coverage in this area with a 150' tower which would dramatically increase coverage in the area (approximately 35% more area than the 60' tower). Commnet Wireless knew, however, the 150' tower may not be viewed favorably due to the nature of the area.

Even though the coverage at 150' is dramatically better, Commnet Wireless did not want to propose a 150' tower due to the potential visual resource impact. The proposed 60' tower still meets most of the coverage objectives, while minimizing the potential impact to the surrounding areas. In addition, the smaller tower eliminates the FAA's requirement for marking/lighting requirements. The continuous blinking warning lights would have been an adverse effect on the recreational experience in the Park.

Alternative Tower Design

Commnet also considered various design options for this proposed tower and determined that a painted monopole would blend in best with the surrounding landscape. Stealth designs that mimic nature, such as an imitation tree, were considered for this project. However, it was determined that a stealth tower would likely stand out more than a painted monopole in the visual landscape at the Stovepipe Wells location.

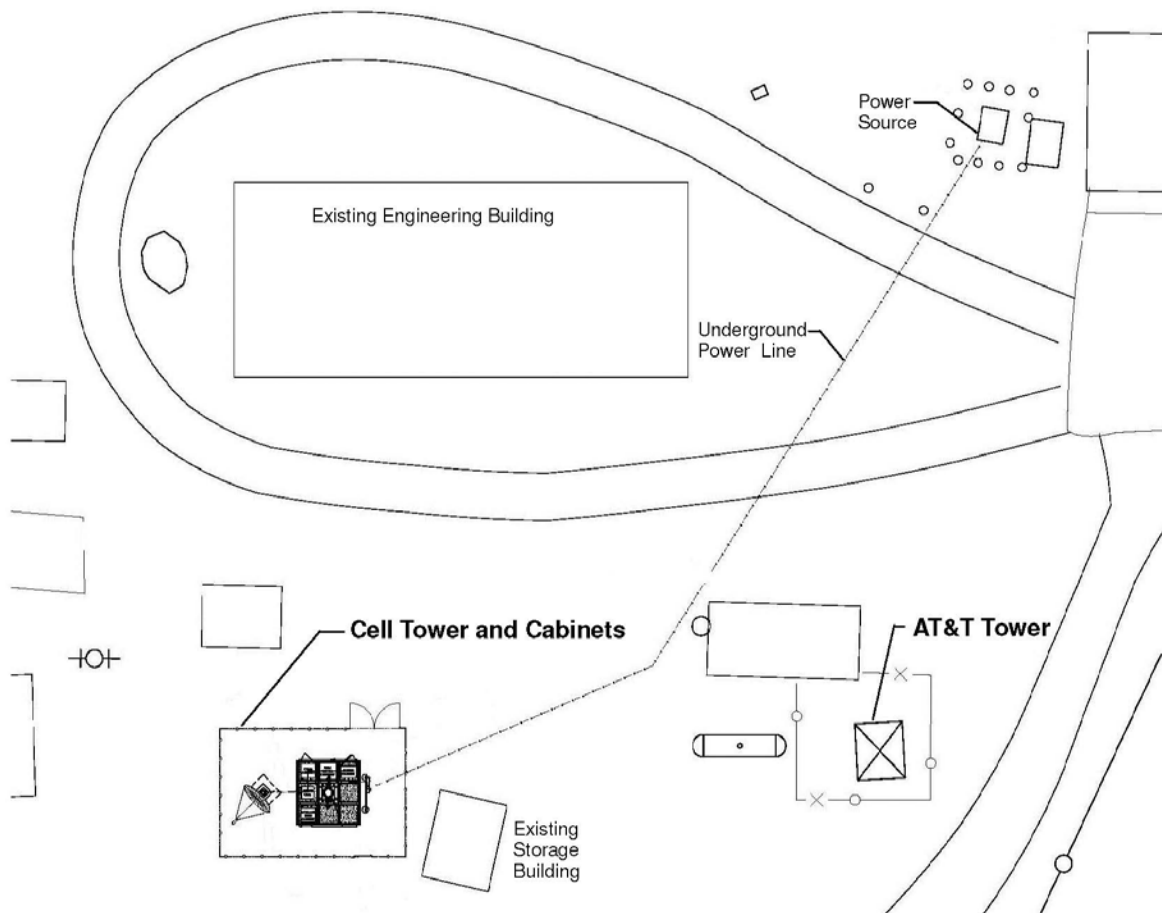


Figure 3. Commnet Proposed Cell Tower Project Site Plan (Underground Power Line would be New Construction)

Construction Sequence

The Lite-Site tower will be quickly assembled from modular stock parts that will be configured for low visual impact poles and will reach 60 feet. (See Figure 4 for a similar Lite-Site tower that was constructed at Furnace Creek Resort.) The assembly process will be very simple and

eliminate variability and error during the construction process which will streamline the installation of the site. (Additional details on design and construction specifics can be found in Appendix B.)



Figure 4. Lite-Site Tower at Furnace Creek Resort

Site Preparation

No ground penetration will be required and the site will be leveled and compacted. The construction site is in an area that has been disturbed (Figure 5).



Figure 5. Location of Proposed Commnet Cell Tower and Cabinets Looking South (Approximate Location in Red)

Delivery and Offloading

The Lite-Site tower and materials will be hauled to the site on a semi-trailer which will be parked in a 50' x 50' staging area. The materials will be offloaded by a small crane.

Base Frame Assembly

The base frame is the structure for the on-grade foundation and consists of three trays and four side channels. One of the three trays contains the base plate. Base frame assembly consists of the following steps:

- Anchor bolts are attached to the base frame plate.
- Other base frames are positioned and bolted together.
- Side channels are bolted to the four sides.
- The base frame is now ready for the ballast.

Adding Ballast

- Eight ballast blocks will be installed into the trays to form the floor.

Lite-Site Tower Installation

- Pole (Tower) sections will be flanged together to build the monopole.

Antenna Mounts

- Antenna mounts will be mounted and co-ax will be routed through the center of the monopole and exit at the bottom of the antenna mount.

Following construction of the monopole, the following construction activities would take place:

- Radio cabinets would be placed adjacent to the tower and within the 20' x 30' fenced area.
- A 4' - 6' diameter dish that will connect the cellular system to the ground telephone system via a satellite link, would be placed adjacent to the tower and within the 20' x 30' fenced area.
- An underground electrical connection would be made between the cellular facility and a transformer approximately 200 feet from the facility. A trench two feet deep and a foot wide would be made for the electrical line which would be placed in a 3" conduit. After placement of the line, the trench would be backfilled with native and backfill material.
- A chain link security fence would be erected around the facility.

Contractor Requirements/Mitigation Measures

Comment will require that the Contractor commit to the following construction requirements or mitigation measures.

- Ensure the site area is clean and free of construction debris on a daily basis.
- Repair any damage to the site area caused by construction or delivery of material to the site.
- All equipment and vehicles will be cleaned of soil and vegetative debris before entering the Park. No soil or fill material will be brought into the Park for the purposes of this project.
- Verify the location of underground pipes/conduits using an independent underground locator service.
- All excavation will be done with care to avoid damaging underground pipes/conduits. Any damage caused by construction will be repaired immediately and monitored by the Contractor until repairs are completed.
- In any areas disturbed by construction, the Contractor will ensure the site is graded properly during construction to avoid standing water.
- Coordinate the excavation work with the National Park Service so as not to interfere with compound access by the NPS and/or current tenants.
- Compact backfill of trenching for the installation of electric and telecommunication lines, as necessary, to ensure no settling occurs.
- Ensure that existing service roads are in equal or better condition after construction compared to their pre-construction condition.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

In accordance with Director's Order 12, the National Park Service is required to identify the environmentally preferred alternative in all environmental documents, including environmental assessments. The environmentally preferred alternative is determined by applying the criteria suggested in the National Environmental Policy Act, which is guided by the Council on Environmental Quality. The council provides direction that: "[t]he environmentally preferred alternative is the alternative that will promote the national environmental policy as expressed in Section 101 of NEPA, which considers:

1. Fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations.
2. Assuring for all generations safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
3. Attaining the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.
4. Preserving important historic, cultural, and natural aspects of our national heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice.
5. Achieving a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.
6. Enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources (NEPA, Section 101)".

The No-Action Alternative is not the environmentally preferred alternative because it would not:

- Assure for all generations safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.
- Enhance health and safety conditions in Death Valley National Park by improving telephone communications which would reduce lapse time for response to emergencies (criteria 1).
- Attain the widest range of beneficial use for Park visitors and NPS and Death Valley Lodging operations (criteria 2 and 5).

The NPS Preferred Alternative is the environmentally preferred alternative because it would:

- Protect public health and safety by enhancing telephone communications in Death Valley National Park (criteria 1).
- Attain the widest range of beneficial use for Park visitors and NPS and Death Valley Lodging operations (criteria 2 and 5).

ALTERNATIVES CONSIDERED BUT DISMISSED

The National Park Service considered two additional alternatives during internal scoping for this project, however, dismissed these alternatives because of potential impacts and they did not meet the purpose and need. These alternatives, which were considered but dismissed, include:

Approving the right-of-way application for the proposed development at a different location within the Stovepipe Wells area. This proposal was considered, but ultimately dismissed because the proposed project location is in an area that is presently disturbed and construction at another location could result in significant adverse impacts on the natural environment.

Co-location of the Commnet tower with the AT&T tower. An alternative to co-locate the proposed cell tower with the existing AT&T tower was considered; however, AT&T refused this alternative. There are no Park-generated guidelines on requiring co-locating communication towers. Therefore, this alternative of co-locating was dismissed.

MITIGATION MEASURES OF THE ACTION ALTERNATIVE

Mitigation measures are presented as part of the action alternative. These actions have been developed to lessen the adverse effects of the proposed action.

Table 1. Mitigation Measures of the Action Alternative

Resource Area	Mitigation
General Considerations	The Commnet project manager would ensure the project remains confined within the parameters established in the compliance document and that mitigation measures would be properly implemented.
	Staging for vehicles and equipment would be sited in previously disturbed area adjacent to the project area.
	The Commnet project manager would coordinate project construction activities with NPS Staff at Stovepipe Wells and concessions operations run by Death Valley Lodging Company to mitigate potential impacts to operations.

Resource Area	Mitigation
Soils	Soils disturbed by construction and trenching activities for the electrical interconnection will be graded properly during construction to avoid standing water and erosion.
Wilderness and Visual Resources	<p>To reduce visual impacts in the Stovepipe Wells area and nearby wilderness area as well as visibility from Highway 190 (the Eichbaum Toll Road, a designated California State Historical Landmark), all visible Lite-Site tower metal surfaces or components (i.e., pole, cabinets) shall be finished with a Marine Coating Alkyd paint made by RUST-OLEUM in the Sand Beige color. This paint is UV Rated, abrasion and weather resistant and is compatible with architectural features at Stovepipe Wells and/or the surrounding natural landscape.</p> <p>Fencing shall be finished with a Marine Coating Alkyd paint made by RUST-OLEUM in the Sand Beige color. This paint will be compatible with architectural features at Stovepipe Wells and/or the surrounding natural landscape.</p>
Cultural Resources	The Lite-Site tower will be painted as previously described to blend in to the existing landscape to minimize any visual impacts. The Park Service Archeologist will be notified in writing at forty-eight (48) hours in advance of any ground-disturbing activities in order to arrange for the Service's monitoring of archeological resources. If concealed archeological resources are encountered during project activities, work in the immediate area should cease, All necessary steps should be taken to protect the resources and notify the Park Service Archeologist immediately.

Table 2. Alternatives Comparison Table

Alternative A: No-Action Alternative	Alternative B: Preferred Alternative
There would be no construction of the Commnet cellular tower and no cellular phone service provided over a large coverage area in Death Valley National Park. The existing AT&T microwave transmission relay tower would continue to provide a landline telephone service to the Stovepipe Wells area.	The Commnet cellular tower would be constructed and provide cellular phone coverage over a large area in Death Valley National Park which presently has limited landline telephone service. The cellular phone coverage would be provided to high visitor use areas such as Stovepipe Wells and Scotty's Castle.

Table 3. Summary of Environmental Consequences/Impact Comparison Matrix

Potential Environmental Impacts		
Impact Topic	Alternative A: No-Action Alternative	Alternative B: Preferred Alternative
Soils	There would be no impacts to soils with the No-Action Alternative.	Soils would be disturbed for construction of the cell tower and trenching activities associated with the electrical interconnection. A 20' x 30' area in a previously disturbed area would be graded and leveled for the cell tower. A 200' trench (one foot wide and two feet deep) would be dug for the electrical interconnection between the cell tower and the transformer. The trench would be backfilled with native soils. Soils along the trench should stabilize within one year to withstand heavy rainfall events. There would be short-term negligible to minor impacts associated with this alternative.
Wildlife	Under the No-Action Alternative, there would be several construction related projects proposed in the Stovepipe Wells	There would be no appreciable change or impact to terrestrial wildlife. The wildlife habitat quality is poor and the presence of

Potential Environmental Impacts		
Impact Topic	Alternative A: No-Action Alternative	Alternative B: Preferred Alternative
	area that would be completed. From a cumulative standpoint, these projects would have additional minor, long-term adverse impacts to migratory birds and wildlife species and their habitats due to construction activities which would slightly alter wildlife habitat or represent a threat to migratory birds.	wildlife is sparse. A 600 square foot area of previously disturbed soil will be graded and leveled for the cell tower. Construction of the cellular tower would have negligible impacts to terrestrial wildlife and migratory birds.
Visitor Use and Experience	Under the No-Action Alternative, there would be negligible impacts to visitor use and experience. Visitors would continue to access the area on a seasonal basis for diverse forms of recreation, and would have ample opportunities for self-directed exploration. Visitors would still not have cell phone coverage for many of the areas in the Stovepipe Wells and Scotty's Castle areas which would be frustrating for some visitors, but would not bother other visitors that enjoy the solitude without the availability of constant communications.	There would be short-term, localized, minor to moderate adverse impacts to visitor use. The proposed cellular tower project would provide substantial cell phone coverage in the Stovepipe Wells and Scotty's Castle areas which are high visitor use areas. For visitors that recognize the importance of the enhanced communication benefits, Alternative B would result in a long-term major beneficial impact. For those visitors not in favor of increased cell phone coverage in the Park, Alternative B would result in a long-term moderate adverse impact as a result of the increased cell phone coverage. There may be a potential for visitor access to more interpretive products such as recorded telephone messages, podcasts, etc.

Potential Environmental Impacts		
Impact Topic	Alternative A: No-Action Alternative	Alternative B: Preferred Alternative
Health and Safety	Under the No-Action Alternative, there would be no change to public health and safety. Visitors would continue to be exposed to long-term risks associated with limited telephone communication services.	Under Alternative B, there would be major long-term health and safety beneficial impacts from the construction of the cellular tower. With enhanced telephone communications in remote areas, the lapse time between an accident or emergency and response time would be reduced substantially.
Park Operations	Under the No-Action Alternative, park operations in the Stovepipe Wells area would continue under the current operations for both the NPS and Death Valley Lodging.	Under Alternative B, there would be major long-term beneficial impacts for both the NPS and Death Valley Lodging at Stovepipe Wells park operations from construction of the cellular tower. The additional cell phone coverage would enhance communications for park operations and increase efficiency over the existing landline telephone service.
Visual Resources	Under the No-Action Alternative, there would be several construction-related projects proposed in the Stovepipe Wells area that would be completed. These projects from a cumulative standpoint would add additional structures into the existing viewshed in the immediate area of Stovepipe Wells. This would result in negligible to minor, long-term adverse impacts on the existing viewshed and visual resources.	Based on reviewing the results of the qualitative viewshed analysis, visual contrast analysis at the KOPs, and the photo simulation, the construction of the cellular tower would result in a range of long-term negligible to minor adverse impacts to visual resources in the immediate area of Stovepipe Wells. The potential area of influence would be an approximate 0.5 to 0.8 mile radius around Stovepipe Wells.
Wilderness	Under the No-Action Alternative, the natural quality of wilderness character would not be changed.	Under Alternative B, the actual natural quality of wilderness character in and around Stovepipe

Potential Environmental Impacts		
Impact Topic	Alternative A: No-Action Alternative	Alternative B: Preferred Alternative
	The existing landscape associated with the buildings, structures, and AT&T tower at Stovepipe Wells would continue to dominate the landscape in the non-wilderness area.	Wells would not be changed. The presence of a cellular signal in the Death Valley National Park with visitors using their phones in the wilderness could adversely impact the opportunities for solitude and unconfined recreation. Impact levels from the proposed action would range from long-term adverse negligible to moderate, depending on where visitors to the wilderness were located and their proximity to other visitors who might choose to use their cell phones in a wilderness setting.
Cultural Resources	Under the No-Action Alternative, historical conditions would remain the same in the Stovepipe Wells area and for Eichbaum Toll Road. There would be no known immediate impact to archeological resources, either adverse or beneficial.	The historic setting of the Eichbaum Toll Road leading to a cluster of isolated buildings and bungalows on a largely undeveloped landscape has been lost. The alternative will have an additional negligible impact on the setting, but the effect would not be adverse.

Chapter 3: Affected Environment

This section provides a brief description of resources in the Stovepipe Wells area and in the vicinity of the project that may potentially be affected by the proposed project and the associated ecosystem study.

LOCATION AND GENERAL DESCRIPTION OF THE PARK

Death Valley National Park is one of the largest National Park System units in the United States (i.e., in the lower 48 contiguous states), encompassing 3,396,192 acres (1,374,390 hectares [ha]). The majority of Park lands are in the California counties of Inyo and San Bernardino; however, a small portion is in the Nevada counties of Nye and Esmeralda. Access to the Park occurs via State Route (SR) 95 from Las Vegas and Tonopah in Nevada and via U.S. Highway 395 from San Bernardino and Bishop in California. Access within the Park occurs primarily from SR 190, which crosses east to west from Death Valley Junction to Lone Pine. The Saline Valley Road provides principal access to the western portions of the Park and is maintained by Inyo County. This 80-mile dirt road runs from Highway 190 in the south to the Big Pine Road in the north, and is currently in a condition that requires a high-clearance vehicle and four-wheel-drive capabilities in order to traverse its length.

The Cottonwood Mountains are one of many north-south trending mountain ranges that define the geography of Death Valley National Park. They are bounded by Ubehebe Crater in the north and Highway 190 in the southern extent. The Cottonwood Mountains are part of the larger Panamint Range, which includes in total the Owlshead Mountains, Nelson Range, Cottonwood Mountains, and Saline Range. The Amargosa Range to the east includes the smaller Black Mountains, Greenwater Range, Funeral Mountains, Grapevine Mountains, and Last Chance Range. Telescope Peak of the Panamint Range is the highest elevation in the Park, rising 11,049 feet (3,368 meters [m]) above sea level, and lies approximately 15 miles from the lowest elevation in the Western Hemisphere - Badwater Basin salt pan (282 feet [86 m] below sea level) (NPS, 2002). Important intermontane basins of Death Valley include the valleys of Greenwater, Saline, Eureka, and Mesquite Flat.

The desert mountain ranges rise in contrast to the broad alluvial fans and valleys. The Park's mountain areas are particularly attractive to visitors during the hot summers, providing cooler temperatures and wooded habitat. The low elevation landscape within the Park is open, providing expansive vistas of basins, valleys, canyons, hills, ridges, slopes, dunes, and desert mountain ranges. Early miners and ranchers developed roads and trails that today provide visitors the opportunity to drive to many remote areas where backcountry camping and exploration is readily available. The expansive roadless areas of the Park offer backpackers and hikers opportunities to explore the geology and landscape while observing vegetation and wildlife. Detailed information on resources in Death Valley National Park may be found in the General Management Plan (NPS 2002) and on the Internet website: <http://www.nps.gov/deva>.

Stovepipe Wells Hotel is set in the center of Death Valley National Park, nine miles west of the junction of California Highway 190 and Scotty's Castle Road and lies about twenty-two miles

northwest of Park headquarters at Furnace Creek. The hotel complex is set along and south of Highway 190, which runs from the southwest to the northeast through the development. The property contains eighty acres. The hotel complex includes eighty-three guest rooms in eight one-story buildings, a pool, a restaurant, a lobby and gift shop building, as well as offices, employee dorms, trailer sites, and assorted support buildings sheds. While the buildings were constructed between 1930 and 1987, they exhibit a similar appearance due to the tan board and batten siding, blue trim, and metal roofs that appear on most of the buildings. The parcel gently slopes to the north at the bottom of an alluvial fan on Tucki Mountain. Palm, deciduous tamarisk, and evergreen tamarisk trees dot the area around the hotel, while creosote shrubs and mesquite trees occupy the area surrounding the hotel.

Stovepipe Wells Hotel became the first tourist accommodations in Death Valley in 1926. The associated road (now California Highway 190) became the first automobile route for tourists into the valley that same year. By the 1920s, the automobile had transformed the way Americans vacationed. Cars had become the preferred means of transportation for middle and upper class vacationers, and tourists began to travel further afield in their cars in their quest for recreational activities or places of scenic interest. Americans of this era also demonstrated a willingness to journey to new places in their quest to experience new sights and activities, and this enthusiasm made Death Valley a prime target for recreational development. Bob Eichbaum, who had developed tourist facilities elsewhere in southern California, realized the tourism potential of Death Valley, and became the first entrepreneur to build a road and tourist accommodations in the valley.

By making Death Valley accessible to auto travelers and providing comfortable accommodations once there, Eichbaum helped transform the public's understanding of the valley. Eichbaum hired a publicity agent, advertised in Los Angeles newspapers, and lured travel journalists to his hotel. The publicity helped to convince vacationers that Death Valley was no longer an unforgiving, inhospitable place, but instead, an area of great natural beauty and historic interest. Eichbaum's venture proved successful, and he expanded the facility until his death in 1932. The success of Stovepipe Wells Hotel also paved the way for subsequent development of other hotels and recreational facilities in the valley. The period of significance spans from 1926, when Eichbaum established his resort, until 1936, when Eichbaum's widow sold the property (NPS, 2012). (Additional discussion on the Eichbaum Toll Road is found in the Cultural Resources Section.)

RESOURCES IN THE PROPOSED PROJECT AREA

Soils

The soils in the area of the proposed action Stovepipe Wells project area are Quaternary alluvium (sand and gravel) of the Mosaic Canyon alluvial fan. These soils are typical of alluvium, lake, playa, and terrace deposits and are unconsolidated and semi-consolidated. Large gravel deposits are noticeable in the surface soils at the project site.

Wildlife

The proposed location for this project is within a highly altered desert shrub community. Human development has been long-term and extensive, greatly altering the natural environment and eliminating most native ground-dwelling wildlife. Aerial species, while not as greatly impacted, have likely shifted to those that are less-impacted or even thrive, in a developed area.

The ground and soils at the site have been disturbed, moved, and compacted. These actions have greatly reduced any vegetation at the site and nearby, and nearly eliminated any burrows or the possibility of burrow construction. This in turn has reduced wildlife diversity and numbers. Potential species richness is reduced in a uniform environment and significantly reduced in an environment characterized by hard surfaces and reduced vegetation. Limited information exists as to species that are present, with very little in the way of surveys or incidental observations that have been documented for both terrestrial invertebrates and vertebrates.

Species documented within the Stovepipe Wells area include coyote, kit fox, bobcat, ringtail, badger, raven, Cooper's hawk, red-shouldered hawks, osprey, waterfowl that land in the swimming pool/sewage lagoon, sidewinders, and side-blotched lizards. Additional species potentially present include zebra-tailed lizard, Panamint rattlesnake, deer mouse, cactus mouse, Brazilian free-tailed bat, western pipistrelle bat, red-tail hawk, turkey vulture, and migratory birds and bats.

Special Status Species

There are no federally listed or candidate species in the proposed project area. The California Department of Fish and Wildlife RareFind Database was queried for the Stovepipe Wells quad. This database is researched, but not relied upon, for data on Park species due to limited entries. Only one entry exists for animals in the area, and that is for desert bighorn sheep. The entry is general and reports sheep presence in many locations of the Panamint mountain range. As the topography, development, and human presence at Stovepipe Wells are not compatible with desert bighorn occurrences, this species is therefore not addressed here.

Bird species of management concern documented for the area, or with potential to be present part of the year, include: Cooper's hawk, sharp-shinned hawk, Swainson's hawk, osprey, prairie falcon, peregrine falcon, and loggerhead shrike. Mammals that are Park species of management concern and are potentially present include kit fox, American badger, ringtail, Brazilian free-tail bat, pallid bat, Townsend's big-eared bat, silver-haired bat, and western pipistrelle bat.

Wilderness

The Stovepipe Wells developed area is located near the center of a small square block of non-wilderness surrounded on all sides by hundreds of thousands of acres of designated wilderness. The proposed cell tower would be located approximately 8/10 of a mile from the wilderness boundary to the south.

Two of the most heavily visited Park wilderness destinations - the Mesquite Flat Sand Dunes and Mosaic Canyon - are within sight of the proposed cell tower. For visitors to Mosaic Canyon who have driven the two miles and 1,000 foot gain, the developed area of Stovepipe Wells remains visible, but begins to somewhat disappear amongst the expansive long-distance views and vast desert wilderness visible to them.

Visitors to the Mesquite Flat Dunes approximately two miles east of Stovepipe Wells quickly find a strong feeling of solitude as they explore amongst the undulating dunes, with the parking lot, road, and Stovepipe Wells developed area quickly becoming either not visible or certainly less prominent.

Cultural Resources

The proposed project is located in the vicinity of the Stovepipe Wells Hotel Historic District (Hotel). The Hotel became the first tourist accommodations in Death Valley in 1926. The associated road (now California Highway 190) became the first automobile route for tourists into the valley that same year. A more detailed description of the history of the Hotel and California Highway 190 is included in the following paragraphs.

The Cultural Resources Area of Potential Effect (APE) for direct effects includes the footprint of the proposed tower and equipment, trenching for the electrical supply, and adjacent work areas. Based upon field visual observations taken from Highway 190 east and west of Stovepipe Wells, the tower would be visible for approximately one linear mile.

Archeological Resources

There have been several archeological surveys conducted at Stovepipe Wells Village. Only one archeological site, CA-INY-2819 (a historic trash dump) and one historical resource, Stovepipe Wells Village, have been recorded within a one mile radius of the project area. An additional historic site, the Eichbaum Toll Road, has been incompletely defined and an unrecorded segment runs through Stovepipe Wells Village. CA-INY-2819 is located outside the APE of the current project and will not be affected by the installation (NPS, 2014).

No prehistoric sites have been recorded within a one mile radius of Stovepipe Wells Village.

The Death Valley National Park Archeologist conducted field checks of the APE on July 16, 2013 and March 20, 2014. The project area consisted of previously disturbed land surfaces within the Stovepipe Wells developed area and has been significantly disturbed by grading and construction of infrastructure. No archeological resources were noted within the direct APE of the proposed project and none are likely to be present and intact.

The area has been built up into a terrace and graded level and has been further disturbed by construction of nearby buildings and frequent vehicle traffic. Given the disturbed nature of the area, it was concluded it is unlikely that intact subsurface resources would be encountered

during the construction of the project. Resources that could be affected by the project are discussed in the subsequent sections.

Historical Structures

Stovepipe Wells Historic District

Name and Number(s): Stovepipe Wells Historic District

NR Status: Determined not eligible with concurrence from the SHPO in 2012. The complex was found to be significant at the local level under Criterion A, but to lack integrity due to modifications.

Stovepipe Wells Hotel became the first tourist accommodations in Death Valley in 1926, and the associated road (now California Highway 190) became the first automobile route for tourists into the valley that same year. Herbert Eichbaum, who had developed tourist facilities elsewhere in southern California, realized the tourism potential of Death Valley, and he became the first entrepreneur to build a road and tourist accommodations in the valley.

By making Death Valley accessible to auto travelers and by providing comfortable accommodations once there, Eichbaum helped to transform the public's understanding of the valley. Eichbaum hired a publicity agent, advertised in Los Angeles newspapers, and lured travel journalists to his hotel. The publicity helped to convince vacationers that Death Valley was no longer an unforgiving, inhospitable place, but instead, an area of great natural beauty and historic interest. Eichbaum's venture proved successful, and he expanded the facility until his death in 1932. The success of Stovepipe Wells Hotel also paved the way for subsequent development of other hotels and recreational facilities in the valley. The period of significance spans from 1926, when Eichbaum established his resort, until 1936, when Eichbaum's widow sold the property.

Stovepipe Wells Hotel is significant under Criterion A at the local level for its association with the development of tourism in Death Valley. However, the only remaining building from the period of significance lacks integrity to the historic period. The original hotel building, built in 1930, has been extensively altered through additions and remodeling.

There are a number of hotel buildings and structures in the complex that were constructed during the 1950s and 1960s. These have been evaluated for significance, but they are not associated with the hotel and they do not have other historical associations. They have also all been remodeled extensively since construction, and so lack physical integrity to their dates of construction (NPS, 2012).

Stovepipe Wells has been determined, with SHPO concurrence, to not be eligible for listing on the National Register of Historic Places. A determination of effect is therefore not required.

Eichbaum Toll Road

Name and Number(s): Eichbaum Toll Road, 14-05199

NR Status: Unevaluated, treat as eligible

In 1906, H. W. “Bob” Eichbaum, an engineer by training, designed an electric plant for the city of Rhyolite. Later Eichbaum turned to prospecting in the Death Valley region. While traveling through Death Valley he developed a dream of building a resort near Death Valley Buttes - just east of old Stovepipe Wells. Eichbaum left Death Valley when mining opportunities faded, but several years later he returned to the region to attempt to realize his dream.

He intended to capitalize on the increasing popularity of auto travel and petitioned the Inyo County Board of Supervisors to allow him to build a road that would reach Death Valley Buttes from Lida, Nevada via Sand Spring in northern Death Valley. The Board of Supervisors denied this petition, but eventually Eichbaum was able to gather support for a route that would connect Whippoorwill Spring in Darwin Wash with Stovepipe Wells.

Eichbaum’s road was completed in 1926, but stopped 4.5 miles short of its intended destination near Old Stovepipe Wells. Constructing and maintaining a road through the dunes of Mesquite Flat proved difficult. Today’s Stovepipe Wells resort is located on solid ground at the western edge of the dunes. Highway 190 roughly follows the route of the toll road between Stovepipe Wells and Darwin Wash.

An early photo (Figure 6) portrays the straight-line road running northeast through Mesquite Flat to old Stovepipe Wells, with Eichbaum’s resort (center of photo) located south of the road at the western edge of the dunes. Death Valley Buttes, the location Eichbaum originally selected, may be seen in the upper left hand corner of the photo. This photo likely dates to the late 1920’s as the main hotel building had not yet been constructed. The hotel building, constructed north of the toll road, was completed by 1930.



Figure 6. Eichbaum Toll Road across Death Valley (Courtesy Frashers Fotos Collection)

Figure 7 shows the toll road after completion of the hotel. The road runs between the bungalows on the left and hotel building on the right. Figure 8 provides a view of the road as it ran through the resort complex. Later photos and a 1936 map indicate rock walls, walkways, and other features were constructed between the lobby building and bungalows - eventually blocking the original course of the toll road.

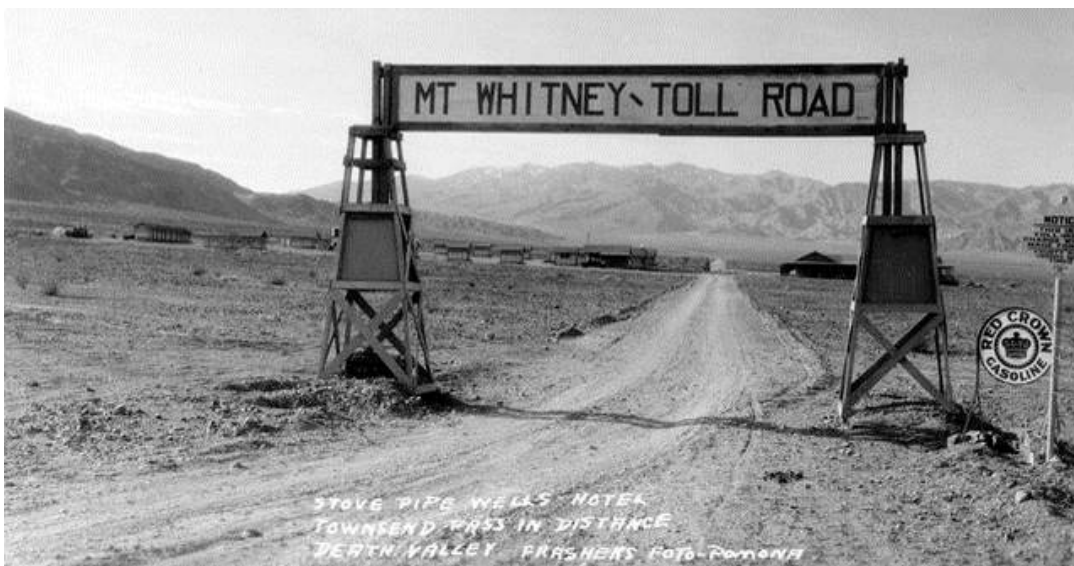


Figure 7. Eichbaum Toll Road through Stovepipe Wells with view towards southwest (Courtesy Frashers Fotos Collection)



Figure 8. Eichbaum Toll Road through Stovepipe Wells with view towards northeast (Courtesy Frashers Fotos Collection)

Segments of the original unpaved toll road remain intact and can be seen between Stovepipe Wells and Towne Pass, within Towne Pass, and on the slope leading west into the Panamint Basin. Two small segments in Towne Pass were recorded as 14-05199 by JRP Historical Consulting in 2009. For much of its length between Stovepipe Wells and Darwin Wash, Highway 190 appears to follow the course of the original road and the stark landscape of Death Valley, Panamint Valley, and Towne Pass has changed little. The location and setting of the toll road, as represented by Highway 190, generally retain integrity. The design has been changed with the addition of pavement and straightening of curves through Towne Pass.

In the immediate area of Stovepipe Wells, the Eichbaum Toll Road exists as two abandoned segments slowly being lost to erosion (Figures 9 and 10).



Figure 9. Dashed lines above are adjacent to and southeast of remaining segments of Eichbaum Toll Road at Stovepipe Wells. Cross-hatched area represents location of original hotel building (Source: NPS, 2014).



Figure 10. Remnant of Eichbaum Toll Road crossing the alluvial fan southwest of Stovepipe Wells. View to northeast with Death Valley Buttes in background. Photo taken 3/20/14 (Source: NPS, 2014).

For the purposes of this analysis and determination of effect, Eichbaum's Toll Road is being treated as eligible for listing in the National Register of Historic Places.

The toll road is located outside of the APE for direct impacts, but within the APE for visual impacts. Visual impacts have the potential to affect the integrity of the road's setting. Qualitative viewshed and contrast analyses performed by B&B, Inc. resulted in a finding of negligible to minor visual impacts to the area surrounding Stovepipe Wells.

The viewshed of the Eichbaum Toll Road at Stovepipe Wells has been altered by the development of the resort complex, including concession employees' housing, park employees' housing, and associated infrastructure. The historic setting of a dirt road leading to a cluster of isolated buildings and bungalows on a largely undeveloped landscape has been lost. Relative to the existing level of development, installation of Commnet's cell tower would have a negligible visual impact on the setting of the toll road, but the effect would not be adverse.

Visitor Use and Experience

Death Valley National Park's annual visitation was around 1,222,980 visitors in 2000. In addition to Stovepipe Wells itself, there are several other areas that have significant visitor use and offer great recreational experience. For example, Scotty's Castle with its architectural style, quality, and priceless collection of antiques and art objects was built in a remote, isolated desert location in the early 1900s and is an icon that has immense public appeal. Other areas include the Mesquite Flat Sand Dunes and the Mosaic Canyon trail.

Visual Resources

Death Valley National Park is the largest National Park System unit in the contiguous 48 States and dedicates itself to protecting significant desert features that provide world class scenic, scientific, and educational opportunities for visitors and academics to explore and study. Death Valley is also very unique in that 91% of the Park is designated as wilderness. The extremely colorful, complex, and highly visible geology and steep, rugged mountains and canyons provide some of the most dramatic visual landscapes in the United States.

The NPS does not apply a classification system to managing scenic quality within National Parks. It should be noted, however, that Death Valley National Park was designated as a National Park to preserve its wilderness and world class scenic viewsheds. As stipulated in the Park's General Management Plan (NPS, 2002), the overall management goal was to protect and maintain the visual quality of the landscape and the built environment. The Park proposed implementing several specific objectives for communications equipment proposals that are mentioned in Chapter 1, Previous Planning Section.

As mandated under the Organic Act (16 U.S.C. 1; NPS 1916), the National Park Service "shall promote and regulate the use of the Federal area...by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide

for enjoyment of same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations”.

There are a variety of methods and procedures for describing existing landscapes and for analyzing the impacts to the scenic quality of a landscape. For this project, a combination of methods and techniques were used which consisted of the following:

- A field visual analysis conducted by the NPS interdisciplinary team;
- Detailed contrast analysis at key visual observation points; and,
- Visual simulation of the proposed project from the key visual observation points.

A contrast analysis was conducted to apply a level of objectivity and consistency to the process and reduce the subjectivity associated with assessing landscape visual quality (BLM, 1986). Contrast analysis can be summarized as the degree to which a project or activity affects scenic quality or visual resources depending on the visual contrasts created or imposed by a project on the existing landscape. The contrasts can be measured by comparing the project's features with the major features in the existing landscape. The process was used to characterize scenic quality and assess potential scenic quality impacts from the proposed cell tower project. Visual contrast analysis compares the existing, characteristic features and contrasts of the landscape to the contrasts imposed on that landscape by a proposed project. The landscape features used in the comparison are the forms, colors, textures, and lines that comprise the existing and potentially modified landscape. A description of the methodology and results of the contrast analysis methodology is presented in Appendix C.

In conducting the visual resource assessment, several key observation viewpoints were selected. The criteria for selecting representative viewpoints were as follows:

- Areas with visual sensitivity, which for the project area would include wilderness areas, the Mosaic Canyon Scenic overlook, the Mesquite Flats Sand Dune overlook and approaches to Stovepipe Wells.
- The potential number of viewers of the Project Area. The most comprehensive views of the Project Area would be from major thoroughfares (along Highway 190, scenic overlooks, and hiking trails).
- The length of time the project area is in view. Motorists on Highway 190 that stop or pass through the project area would have the best views of existing scenic quality and any changes to that quality.

Based on the criteria presented above, nine key observation points (KOP) were selected for visual resource characterization and analysis (Figure 11).



Figure 11. Location of Key Observation Points (KOPs)

The nine KOPs are listed in Table 4 and the detailed landscape and visual description at each of the KOPs is presented in Appendix C.

Table 4. Key Observation Points for Visual Resource Assessment

Key Observation Points - Along Mosaic Canyon Road Looking North Towards Stovepipe Wells		
KOP 1	Mosaic Canyon Parking Lot (2.2 miles from the intersection of Mosaic Canyon Road and Highway 190)	See Appendix C
KOP 1A	Mosaic Road (1.4 miles from the intersection of Mosaic Canyon Road and Highway 190)	See Appendix C
KOP 1B	Mosaic Road (0.8 miles from the intersection of Mosaic Canyon Road and Highway 190)	See Appendix C and Table 5
Key Observation Points - Along Highway 190 Looking West Towards Stovepipe Wells		
KOP 2	Mesquite Flat Sand Dunes Parking Lot - West Bound Highway 190	See Appendix C
KOP 2A	Mileage Marker 86.5 - West Bound Highway 190	See Appendix C and Table 6
KOP 2B	Looking Southeast from the Intersection of Highway 190 and Entrance to Ranger Station	See Appendix C
Key Observation Points - Along Highway 190 Looking East Towards Stovepipe Wells		
KOP 3	East Bound Highway 190 approaching NPS Sign	See Appendix C
KOP 3A	East Bound Highway 190 at Mile Marker 85.5	See Appendix C and Table 7
KOP 3B	Near Intersection of Mosaic Canyon Road and Highway 190	See Appendix C

The NPS Interdisciplinary Team decided that visual simulation of the proposed cell tower with the existing landscape would help with the overall impact analysis. It was therefore decided that visual simulation would be performed at three of the nine KOPs. A detailed description of the existing landscape for the three KOPs is presented in Tables 5, 6 and 7. Results of the visual simulation and impacts associated with the cell tower are presented in Chapter 4, Visual Resources Section.

Table 5. KOP 1B - Mosaic Canyon Road Looking North (0.8 Miles from the Intersection of Mosaic Canyon Road and Highway 190)

CHARACTERISTIC LANDSCAPE DESCRIPTION			
	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground with flat to slightly rolling sand dunes in the middle ground and dominated by bold and prominent mountains in the background.	Simple forms created by vegetation patterns, low sparse creosote brush cover and smooth, regular patterns.	Stovepipe Wells Village is visible in the middle ground as a horizontal structure. The degree of contrast is moderate. The existing AT&T tower is visible as a vertical structure.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical.	Weak and undulating horizontal lines created by changes in vegetative patterns.	Stovepipe Wells Village is visible and horizontal. Weak vertical lines are associated with the village, but the AT&T tower slightly extends the vertical lines.
COLOR	Gray with some brown and tan hues.	Primarily brown and green.	Stovepipe Wells Village is white. The AT&T tower is visible and is black and provides a strong contrast in front of the sand dunes in the background.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains.	Smooth to medium and patchy.	Medium with weak contrast, but AT&T tower extends texture in a vertical direction.

Table 6. KOP 2A - Mileage Marker 86.5 - West Bound Highway 190

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground and dominated by bold and prominent Cottonwood Mountains in the background.	Simple forms created by vegetation patterns, low continuous creosote brush cover, and smooth, regular patterns.	Stovepipe Wells Village is more visible in the background as a horizontal structure. The degree of contrast is weak to moderate. The existing AT&T tower is barely visible as a vertical structure.
LINE	Mostly horizontal in the foreground with the exception of the Cottonwood Mountains in the background which are vertical.	Weak and undulating horizontal lines created by changes in vegetative patterns.	Stovepipe Wells Village is visible and horizontal. Weak vertical lines associated with the village, but the AT&T tower slightly extends the vertical lines.
COLOR	Gray with some brown hues.	Primarily brown and green.	Roads are gray and Stovepipe Wells Village is white. The AT&T tower is barely visible and is black and provides a small contrast in front of the Cottonwood Mountains.
TEXTURE	Smooth to medium for the foreground and coarse for the Cottonwood Mountains.	Smooth to medium and patchy.	Medium with weak contrast, but the AT&T tower would extend texture in a vertical direction.

Table 7. KOP 3A - Mileage Marker 85.5 - East Bound Highway 190

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in the foreground and dominated by bold and prominent mountains in the background.	Simple forms created by vegetation patterns, low continuous creosote brush cover, and smooth, regular patterns.	Stovepipe Wells Village is more visible in the background as a horizontal structure. The degree of contrast is weak to moderate. The existing AT&T tower is more visible and still silhouetted against the Mesquite Flat sand dunes.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical.	Weak and undulating horizontal lines created by changes in vegetative patterns.	Stovepipe Wells Village is more visible and horizontal. Moderate vertical lines are associated with the village while there are moderate vertical lines associated with the AT&T tower.
COLOR	Gray with some brown and tan hues.	Primarily brown and green.	Roads are gray and Stovepipe Wells Village is white. The AT&T tower is black and provides a strong visual contrast with the golden-colored dunes.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains.	Smooth to medium and patchy.	Medium with weak textures.

Health and Safety

The proposed project area is located at Stovepipe Wells where there is very limited telecommunications and no cell phone coverage. There is also limited coverage for the Daylight Pass Road and Scotty's Castle Road which are located in remote areas. A primary health and safety concern in the area is the remoteness of these areas and the time lapse for emergency response to accidents or emergencies. For example, if someone witnesses an accident on the midpoint of Scotty's Castle Road, there would be a 30-minute drive in either direction to report the accident.

Park Operations

Park operations in the Stovepipe Wells area consist of National Park Service facilities and Stovepipe Wells concessions operations run by Death Valley Lodging Company.

The National Park Service facilities includes a campground, ranger station, ambulance bay, maintenance workshop, a 60,000 gallon water system that produces 22,000 gallons of water per day, and a waste water facility than can dispose of 26,000 gallons per day.

The NPS Stovepipe Wells Campground has approximately 190 sites, including 28 tent sites with a picnic table and fire ring, 157 standard RV sites, and 1 host site with full hook-ups, fire ring, and picnic table. In addition, there is a community fire ring and picnic area, a restroom, a pay station/bulletin board, and a RV dump and water station.

The National Park Service housing area in Stovepipe Wells is composed of seven housing units built in 1995 (six are duplex units and one is a stand-alone house). These housing units are inhabited by NPS staff stationed at Stovepipe Wells. Each unit is approximately 1,152 square feet, and consists of 2 bedrooms, 2 bathrooms, and an attached one car garage.

The Stovepipe Wells concession operations are run by Death Valley Lodging Company and provide the following visitor services:

- Overnight Accommodations (Operation of Stovepipe Wells Lodge);
- Food and Beverage (Operation of Toll Road Restaurant and Badwater Saloon);
- Retail Services (Nugget Gift Shop and General Store);
- Campground (RV Site Rental) with 14 sites. Each of those sites has full hook-ups; and,
- Service Station.

Death Valley Lodging Company employs around 75 employees (55 of which live on-site). Hotel operation includes 83 rooms. At any given time there may be as many as 300 hotel guests and transients.

Communications in the Stove Pipe Wells area is presently provided by the existing AT&T microwave transmission relay tower providing landline telephone service to the NPS and the concession operations.

Chapter 4: Environmental Consequences

INTRODUCTION

This section describes the potential environmental consequences associated with the No-Action and Preferred Alternatives. Methodologies and assumptions for assessing environmental consequences are discussed, including consideration of context, intensity, and duration of impacts; cumulative impacts; and measures to mitigate impacts. Subsequent sections under the “Environmental Consequences” Section are organized by impact topic, first for the No-Action Alternative, and then for the Commnet Cell Tower Project.

The National Park Service evaluates all potential impacts by considering the direct, indirect, and cumulative effects of the proposed action on the environment, along with connected and cumulative actions. Impacts are described in terms of context and duration. The context or extent of the impact is described as localized or parkwide. The duration of impacts is described as short-term (up to two months following initiation of project activities), or long-term (generally after construction of the proposed project and extending up to five years or longer). The long-term impact would last more than one year and could be permanent in nature, such as the loss of soil due to erosion.

The intensity and type of impact is described as negligible, minor, moderate, or major, and as beneficial or adverse. The identification of “major” effects would trigger the need for an environmental impact statement. Where the intensity of an impact could be described quantitatively, the numerical data are presented. Most impact analyses are qualitative, however, and use best professional judgment in making the assessment.

METHODOLOGY

Overall, the National Park Service based these impact analyses and conclusions on the review of existing literature and Park studies, information provided by experts at the Park and other agencies, professional judgments, and Park staff insights.

CONTEXT, DURATION AND INTENSITY, AND TYPE OF IMPACT

The following definitions were used to evaluate the context, intensity, duration, and cumulative nature of impacts associated with project alternatives.

Context

Context is the setting within which an impact is analyzed such as local, parkwide, or regional. The Council on Environmental Quality requires the impact analyses to include discussions of context. For this environmental assessment, local impacts would occur within the general

vicinity of the roadway, while parkwide impacts would affect a greater portion of the Park and regional impacts would extend outside the Park boundary.

Duration

The duration of an impact is the time period for which the impacts are evident and are expressed in the short-term or in the long-term. A short-term impact would be temporary in duration. Impact duration for each resource is unique to that resource. Impact duration for each resource is presented below in association with impact intensity thresholds.

Intensity

Impact intensity is the degree to which a resource would be beneficially or adversely affected. The criteria used to rate the intensity of the impacts for each resource topic are presented later in this section under each topic heading.

Type of Impact

Impacts can be beneficial or adverse. Beneficial impacts would improve resource conditions, while adverse impacts would deplete or negatively alter resources.

IMPACT INTENSITY THRESHOLDS

Soils

All available information on soils to potentially receive impacts was compiled from agency databases, previous studies, and current site review. Predictions concerning short- and long-term site impacts were based on previous projects in desert environments with similar exposures and soils/fill materials. The thresholds of change for the intensity of an impact to soils are defined as follows:

Impact Intensity	Intensity Definition
Negligible	Geologic processes related to soils development and soil health would not be affected or the effects would be below or at the lower levels of detection based on standard scientific methodologies for geologic features and processes and soil formation. Any effects to geologic exposures and soils would be slight.
Minor	The effects to geologic processes related to soils development and soil health would be detectable upon monitoring. Loss or change of features or shallow developed soils would be small and localized with minimal loss of contextual information. Mitigation may be needed to offset adverse effects and would be relatively simple to implement and likely be successful.
Moderate	The effect on geologic processes related to soils development and soil health would be apparent and result in a change over a relatively wide area. Upon monitoring, some soil health and contextual information would be lost and disruption to key geologic processes would be short-term. Mitigation measures would be necessary to offset adverse effects and would likely be successful.
Major	The effect on geologic processes related to soils development and soil health would be readily apparent and substantially change the character of the geology and soils over a large area. Upon monitoring, many geologic features and contextual information would be lost and disruption to key geologic processes would be permanent. Mitigation measures to offset adverse effects would be extensive and their success could not be guaranteed.

Soil impacts would be considered short-term if the soils recover in less than three years and long-term if the recovery takes longer than three years.

Wildlife

The National Park Service Organic Act, which directs Parks to conserve wildlife unimpaired for future generations, is interpreted by the agency to mean that native animal life should be protected and perpetuated as part of the Park's natural ecosystem. Natural processes are relied on to control populations of native species to the greatest extent possible; otherwise, they are protected from harvest, harassment, or harm by human activities. According to NPS *Management Policies 2006*, the restoration of native species is a high priority (Sec. 4.1).

Management goals for wildlife include maintaining components and processes of naturally evolving park ecosystems, including natural abundance, diversity, and the ecological integrity of plants and animals. Information on Death Valley National Park wildlife was acquired from Park documents, records, site-specific studies, and current site review. The thresholds of change for the intensity of an impact to wildlife are defined as follows:

Impact Intensity	Intensity Definition
Negligible	There would be no observable or measurable impacts to migratory birds and native species, their habitats, or the natural processes sustaining them. Impacts would be of short duration and well within natural fluctuations.
Minor	Impacts would be detectable, but they would not be expected to be outside the natural range of variability and would not have any long-term effects on migratory birds and native species, habitats, or natural processes. Mitigation measures, if needed to offset adverse effects, would be simple and successful.
Moderate	Breeding animals are present; animals are present or adjacent to project activities during particularly vulnerable life-stages such as migration or juvenile stages. Mortality or interference with activities necessary for survival could occur on an occasional basis, but is not expected to threaten the continued existence of the species or the overall health of communities in the National Park System unit. Impacts on migratory birds and native species, their habitats, or the natural processes sustaining them would be detectable and could be outside the natural range of variability short-term. Mitigation measures, if needed to offset adverse effects, would be extensive and likely successful.
Major	Impacts on migratory birds and native species, their habitats, or the natural processes sustaining them would be detectable and long-term to permanently outside the natural range of variability. Loss of habitat might affect the viability of at least some native species. Extensive mitigation measures would be needed to offset any adverse effects and their success would not be guaranteed.

The duration of wildlife impacts is considered short-term if the recovery is less than one year and long-term if the recovery is longer than one year.

Special Status Species

It is the policy of the National Park Service to manage critical habitat of sensitive species and perpetuate the natural distribution and abundance of these species and the ecosystems on which they depend. The U.S. Fish and Wildlife Service (USFWS) was contacted for a list of special status species and designated critical habitats that may be within the proposed project area or affected by any of the alternatives. The USFWS responded that no federally listed species were present. The NPS also consulted the California Department of Fish and Wildlife's Natural Diversity Database. Information on additional possible species of special concern was gathered from published sources. Information from prior research at Death Valley National Park was

incorporated. Known impacts caused by development and human use were also considered. The thresholds of change for the intensity of an impact are defined as follows:

Impact Intensity	Intensity Definition
Negligible	The action could result in a change to a population or individuals of a species or habitat; however, the change would be so small that it would not be of any measurable or perceptible consequence and would be well within natural variability.
Minor	The action could result in a beneficial or adverse change to a population or individuals of a species, habitat, or natural processes. The impact, however, would not be observable and within the range of natural fluctuations. The change would be measurable, but small and localized and of little consequence. Mitigation measures, if needed to offset the adverse effects, would be simple and successful.
Moderate	Beneficial or adverse impacts on special status species, habitats, or sustaining natural processes would be detectable and could be outside the natural range of variability. Mitigation measures, if needed to offset adverse effects, would be extensive and likely successful.
Major	The action would result in a noticeable beneficial or adverse effect to the viability of a population or individuals of a species, habitat, natural processes, resource, or designated critical habitat. Impacts on a special status species, critical habitat, or the natural processes sustaining them would be detectable within the Park. Loss of habitat might affect the viability of at least some special status species. Extensive mitigation measures would be needed to offset any adverse effects and their success would not be guaranteed.

Special status species impacts are considered short-term if the species recovers in less than one year and long-term if it takes longer than one year for the species to recover.

Wilderness

The National Park Service has by law and policy the mandate to administer wilderness in a way that will leave wilderness “unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character...” (16 USC 1131). For purposes of this analysis, the five different attributes of wilderness character include: (1) untrammeled; (2) natural; (3) undeveloped; (4) opportunities for solitude or primitive or unconfined recreation; and (5) unique (Landres et. al 2008). The unique quality of Death Valley Wilderness includes the diverse cultural resources preserved within the wilderness areas. The thresholds for the intensity of impacts to wilderness are defined as follows:

Impact Intensity	Intensity Definition
Negligible	Wilderness character would not be affected, or changes in the qualities of wilderness character would be below or at the level of detection. For adverse impacts, mitigation, if needed, would be simple and effective.
Minor	Changes in wilderness character and qualities would be detectable, although the changes would be slight. For adverse impacts, mitigation would be needed but relatively simple to implement and likely effective.
Moderate	Changes in wilderness character would be apparent to most visitors. For adverse impacts, mitigation would be necessary and would entail more complex measures which would likely be effective.
Major	Changes in wilderness character would be readily apparent to all visitors, and would be severely adverse or exceptionally beneficial. For adverse impacts, mitigation would be complex and challenging to implement, with only a chance of success.

The effects to wilderness are considered short-term if they persist less than three years. Impacts would be long-term if wilderness character is still impacted in three years.

Cultural Resources / Section 106 of the National Historic Preservation Act

In this environmental assessment, impacts to cultural resources are described in terms of type, context, duration, and intensity, which is consistent with the regulations of the Council on Environmental Quality that implement NEPA. These impact analyses are both intended to comply with the requirements of NEPA and reflect the determinations made in compliance with Section 106 of the National Historic Preservation Act. In accordance with the Advisory Council on Historic Preservation regulations implementing Section 106 of the NHPA (36 CFR 800, *Protection of Historic Properties*), impacts to cultural resources were identified and evaluated by: (1) Determining the area of potential effects; (2) identifying cultural resources present in the area of potential effects that are either listed in or eligible to be listed in the National Register of Historic Places; (3) applying the criteria of adverse effect to affected NRHP-eligible or -listed cultural resources; and (4) considering ways to avoid, minimize, or mitigate adverse effects.

The project was discussed with Timbisha Shoshone tribal government on July 17, 2013. Formal consultation with the State Historic Preservation Officer (SHPO) and the Timbisha tribe was initiated on August 8, 2013. No comments were received.

A separate Section 106 compliance document was submitted to the California SHPO on April 1, 2014 requesting concurrence with the Park's definition of the APE, determination of eligibility for properties within the APE, and assessment of effects to the properties by the

proposed project. Formal government to government consultation and request for comments were also submitted to the Timbisha Shoshone Tribe on the same date.

Under Advisory Council on Historic Preservation regulations, a determination of either *adverse effect* or *no adverse effect* must also be made for affected NRHP-listed or -eligible cultural resources. An *adverse effect* occurs whenever an impact alters, directly or indirectly, any characteristic of a cultural resource that qualifies it for inclusion in the national register (e.g., diminishing the integrity [or the extent to which a resource retains its historic appearance] of its location, design, setting, materials, workmanship, feeling, or association). Adverse effects also include reasonably foreseeable effects of the alternatives that would occur later in time, be farther removed in distance, or be cumulative (36 CFR 800.5, *Assessment of Adverse Effects*). A determination of *no adverse effect* means there is an effect, but the effect would not diminish the characteristics of the cultural resource that qualify it for inclusion in the national register.

Council on Environmental Quality regulations and NPS *Conservation Planning, Environmental Impact Analysis, and Decision-making* (Director's Order 12) also require a discussion of mitigation, and an analysis of how effective the mitigation would be in reducing the intensity of a potential impact (e.g., from major to moderate). Any resultant reduction in the intensity of an impact due to mitigation, however, is an estimate of the effectiveness of mitigation under NEPA only. It does not suggest the level of effect, as defined by Section 106, is similarly reduced. Cultural resources are nonrenewable resources and adverse effects generally consume, diminish, or destroy the original historic materials or form, resulting in a loss in the integrity of the resource that can never be recovered. Although actions determined to have an adverse effect under Section 106 may be mitigated, the effect remains adverse. The thresholds of change for the intensity of an impact to historical structures are defined as follows:

Impact Intensity	Intensity Definition
Negligible	The impact would be at the lowest levels of detection and barely measurable, with no perceptible consequences, either adverse or beneficial, to the resources. The Section 106 determination would be no adverse effect.
Minor	The impact is measurable or perceptible, but is slight and affects a limited area of a site or group of sites. Slight alteration(s) would not diminish the overall integrity of the resource. For purposes of Section 106, the determination of effect would be no adverse effect.
Moderate	The impact is measurable and perceptible. The effect changes one or more of the characteristics that qualify the site(s) for inclusion in the National Register and diminishes the integrity of the site(s), but does not jeopardize the National Register eligibility of the site(s). For purposes of Section 106, the determination of effect would be adverse effect.

Impact Intensity	Intensity Definition
Major	The impact is substantial, noticeable, and permanent. The action severely changes one or more characteristics that qualify the site(s) for inclusion in the National Register, diminishing the integrity of the site(s) to such an extent that it is (they are) no longer eligible for listing in the National Register. For purposes of Section 106, the determination of effect would be adverse effect.

A Section 106 summary is included in the applicable impact analysis sections. This summary is an assessment of the effect of the undertaking (implementation of the alternative) on NRHP-eligible or listed cultural resources only, based on the criteria of effect and criteria of adverse effect found in Advisory Council regulations.

Visitor Use and Experience

National Park Service *Management Policies 2006* state that the enjoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks and that the National Park Service is committed to providing appropriate, high-quality opportunities for people to enjoy the parks.

Part of the purpose of Death Valley National Park is to offer opportunities for recreation, education, inspiration, and enjoyment. Consequently, one of the Park's management goals is to ensure that visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of Park facilities, services, and appropriate recreational opportunities.

Public scoping input and observation of visitation patterns, combined with an assessment of what is available to visitors under current management, were used to estimate the effects of the actions in the various alternatives of this document. The impact on the ability of the visitor to experience a full range of Death Valley National Park resources was analyzed by examining resources and objectives presented in the Park's significance statement. The potential for change in visitor use and experience proposed by the alternatives was evaluated by identifying the potential impacts of construction of the cell tower, the aesthetic experience of an area after construction, and determining how these projected changes would affect the desired visitor experience, as well as to what degree and for how long. The potential impacts can also be beneficial as well as negative. The thresholds of change for the intensity of an impact to visitor use and experience are defined as follows:

Impact Intensity	Intensity Definition
Negligible	The visitor would not be affected, or changes in visitor use and/or experience would be below or at the level of detection. The visitor would not likely be aware of the effects associated with the alternative.
Minor	Changes in visitor use and/or experience would be detectable, although the changes would be slight. Some of the visitors would be aware of the effects associated with the alternative, but the effects would be slight and not noticeable by most visitors.
Moderate	Changes in visitor use and/or experience would be readily apparent to most visitors. Visitors would be aware of the effects associated with the alternative and might express an opinion about the changes.
Major	Changes in visitor use and/or experience would be readily apparent to all visitors, severely adverse, or exceptionally beneficial. Visitors would be aware of the effects associated with the alternative and would likely express a strong opinion about the changes.

Impacts to visitor use and experience are considered short-term if the effects last only as long as the period of construction of the cell tower. Impacts are considered long-term if the effects last longer than the construction period.

Health and Safety

The impact assessment for health and safety focused on the number of potential individuals impacted and the severity of the impact. The thresholds of change for the intensity of an impact are defined as follows:

Impact Intensity	Intensity Definition
Negligible	Health and safety would not be affected, or the effects would be at low levels of detection and would not have an appreciable effect on visitors or employee health and safety.
Minor	The effect would be detectable, but would not have an appreciable effect on health and safety. If mitigation were needed, it would be relatively simple and would likely be successful.
Moderate	The effects would be readily apparent and result in substantial, noticeable effects to health and safety on a local scale. Mitigation measures would probably be necessary and would likely be successful.

Impact Intensity	Intensity Definition
Major	The effects would be readily apparent and would result in substantial, noticeable effects to health and safety on a regional scale. Extensive mitigation measures would be needed, and their success would not be guaranteed.

The effects to safety are considered short-term if the effects last for the period of construction and long-term if the effects last beyond the period of construction.

Visual Resources

The impact assessment for visual resources focused on using a contrast analysis method applied from the perspective of chosen viewpoints and supplemented with visual simulation of the proposed cell tower from the key observation points. The thresholds of change for the intensity of an impact are defined as follows:

Impact Intensity	Intensity Definition
Negligible	Visual resources would not be affected, or changes in qualities of visual resources would be below or at the level of detection. For adverse impacts, mitigation, if needed, would be simple and effective.
Minor	Changes in visual resources would be detectable, although the changes would be slight and non-substantive only. For adverse impacts, mitigation would be needed but relatively simple to implement and likely effective.
Moderate	Changes in visual resources would partially retain the existing character of the landscape and while the changes would attract the attention of the casual viewer, they would not dominate the view. For adverse impacts, mitigation would be necessary and would entail more complex measures, which would likely be effective.
Major	Changes in visual resources would create a high degree of change within the existing landscape, dominate the view, and be a focus of viewer attention. For adverse impacts, mitigation would be complex and challenging to implement, with only a chance of success.

The effects to visual resources are considered short-term if the effects last for the period of construction and long-term if the effects last beyond the period of construction.

Park Operations

The impact assessment for park operations focused on the potential impact of the NPS and concessionaire operations (Death Valley Lodging) in the Stovepipe Wells area and the severity of the impact. The thresholds of change for the intensity of an impact are defined as follows:

Impact Intensity	Intensity Definition
Negligible	NPS or Death Valley Lodging operations would not be affected, or the effects would be at low levels of detection and would not have an appreciable effect on operations.
Minor	The effect would be detectable, but would not have an appreciable effect on NPS or Death Valley Lodging operations. If mitigation were needed, it would be relatively simple and likely be successful.
Moderate	The effects would be readily apparent and result in substantial, noticeable effects on NPS or Death Valley Lodging operations. Mitigation measures would probably be necessary and likely be successful.
Major	The effects would be readily apparent and result in substantial, noticeable effects to NPS or Death Valley Lodging operations. Extensive mitigation measures would be needed and their success would not be guaranteed.

DIRECT AND INDIRECT IMPACTS

The following definitions of direct and indirect impacts are considered:

Direct – an effect that is caused by an action and occurs at the same time and in the same place.

Indirect – an effect that is caused by an action that is later in time or farther removed in distance, but is still reasonably foreseeable.

CUMULATIVE IMPACTS

Council on Environmental Quality regulations which implement NEPA requires assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions” (40 CFR

1508.7). Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time.

Cumulative impacts are considered for all alternatives and are presented at the end of each impact topic discussion analysis.

Cumulative effects are the direct and indirect effects of an alternative's incremental impacts when they are added to other past, present, and reasonably foreseeable actions, regardless of who carries out the action. Federal agencies are required to identify the temporal and geographic boundaries within which they will evaluate potential cumulative effects of an action and the specific past, present, and reasonably foreseeable projects that will be analyzed. This includes potential actions within and outside the Park boundary. The geographical boundaries of analysis vary depending on the impact topic and potential effects. While this information may be inexact at this time, major sources of impacts have been assessed as accurately and completely as possible, using all available data.

Specific projects or ongoing activities with the potential to cumulatively affect the resources (impact topics) evaluated for the project are identified in this document and described in the following narrative. Some impact topics would be affected by several or all of the described activities, while others could be affected very little or not at all. How each alternative would incrementally contribute to potential impacts for a resource is included in the cumulative effects discussion for each impact topic.

Past, present, and reasonably foreseeable future actions that may cumulatively affect wilderness and other associated resources being analyzed in this assessment include:

- Proposed removal of the NPS water tanks at Stovepipe Wells and replacement with a 250,000-gallon tank to meet standards for structural fire suppression for the built environment at Stovepipe Wells. This project would remove two existing underground concrete water storage tanks with 80,000 gallon combined capacity and replaced with a single tank. The new tank would be sited in the disturbed footprint of the existing tanks. In the engineering design process, the contractor would examine the feasibility of underground tank installation. If no significant additional pumpage would be required for an underground tank and the project would still be feasible and sustainable, this option would be pursued as a Preferred Alternative. If underground tank installation is not feasible and sustainable, a new 250,000 gallon cylindrical tank with a slightly domed top would be installed on the same site above ground. This tank would be 12 feet tall with a radius of 30 feet. Mitigation for viewshed impacts would include creating a 6-foot berm between the tank and the road. In addition, the color of the non-reflective coating would be selected to blend into the background to mitigate viewshed impacts;
- Ongoing concession operations at Stovepipe Wells, including the past construction of multiple buildings and a gas station;
- HVAC installation to the Stovepipe Wells motels which would include chillers and trenching activities.

- Existing AT&T microwave transmission relay tower providing landline telephone service to the NPS and the concession operation;
- Existing Southern California Edison power lines, switching stations, and power boxes in the Stovepipe Wells area;
- Roadway improvements to 250 miles of paved and 1,000 miles of non-paved roads, specifically including:
 - California Department of Transportation's proposed curve straightening and culvert installation at Pearl's Dip on Highway 190, between milepost 71.0 and 71.56;
 - California Department of Transportation routine maintenance on Highway 190, including periodic asphalt preservation;
 - Rehabilitation (asphalt overlay, reconstruction, widening, realignment) of 7 miles of Bonnie Clare Road (Grapevine Canyon Road);
 - Rehabilitation (repaving current alignment with drainage improvements, addition of a vehicle turn-out area) of 4.8 miles of Emigrant Canyon Road, also known as Lower Wildrose Road.
- Implementation of the Park's approved Wilderness and Backcountry Stewardship Plan, including the eventual installation of a vault toilet at the Mosaic Canyon parking area and established group size limits to protect wilderness character;
- Preparation of an Air Tour Management Plan for Death Valley National Park to determine the flight path and establish the maximum number of commercial air tours allowed per year;
- Preparation of an Exotic Vegetation Management Plan for Death Valley National Park to determine the priorities of managing exotic vegetation in the Park and the acceptable methods and tools, including wilderness areas of the Park;
- Preparation of a Saline Valley Warm Springs Management Plan and Environmental Impact Statement for Death Valley National Park, to provide a sound basis for guiding management actions and making decisions within this area of the Park.

ENVIRONMENTAL CONSEQUENCES—ALTERNATIVE A: NO-ACTION

Soils

Under the No-Action Alternative, the existing soils would not be disturbed with construction of the cell tower and trenching activities associated with the electrical interconnection.

Cumulative Impacts

Past, present, and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect soils include several building construction projects; replacement of two old water tanks with a new NPS water tank modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. Taking no action would continue to contribute to cumulative adverse impacts on soils associated with the identified future projects.

Conclusion

The No-Action Alternative would not result in any appreciable impact on soils beyond the cumulative impacts associated with the implementation of the identified future projects.

Wildlife

Under the No-Action Alternative, there would be no appreciable change or impact to terrestrial wildlife or associated wildlife habitat. At the present time, however, the existing AT&T tower represents a potential threat for impacting migratory birds because of its lattice tower construction. While there is no evidence to support the potential impact at this location, based on published research on communication towers and migratory birds there is the potential for minor adverse impacts to migratory birds associated with the existing AT&T tower.

Cumulative Impacts

Past, present, and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect wildlife and wildlife habitat include several building construction projects; replacement of two old water tanks with a new NPS water tank; modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. Taking no action would continue to contribute to cumulative minor adverse impacts on wildlife and wildlife associated with the identified future projects. Potential impacts to migratory birds would also continue to contribute to cumulative minor adverse impacts on wildlife associated with the identified future projects.

Conclusion

The No-Action Alternative would have minor, long-term adverse impacts on migratory birds and wildlife species and their habitats due to construction activities of future projects that would alter wildlife habitat or represent a threat to migratory birds.

Special Status Species

Under the No-Action Alternative, there would likely be no effect on Special Status Species.

Cumulative Impacts

There are no federally listed or candidate species in the Stovepipe Wells area and there would be limited wildlife habitat disturbance associated with the construction of the future projects identified in the cumulative impacts section. As there are no known special status species in the Stovepipe Wells immediate area, there would be no impact on Special Status Species.

Conclusion

Taking no action would not result in short-term or long-term adverse impacts to Special Status Species.

Wilderness

Under the No-Action Alternative, the natural quality of wilderness character would not be changed. The existing landscape associated with the buildings, structures, and AT&T tower at Stovepipe Wells would continue to dominate the landscape in the non-wilderness area.

Cumulative Impacts

Past, present, and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect wilderness include several building construction projects; replacement of two old water tanks with a new NPS water tank; modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. These projects would change the existing structures and visual landscape for wilderness visitors which could adversely affect their wilderness experience. This change or impact would be minor to moderate depending upon the location of the wilderness visitor. Taking no action would continue to contribute to cumulative adverse impacts on wilderness associated with the identified future projects.

Conclusion

Taking no action would continue to degrade the natural quality of wilderness character due to the construction of future projects in the Stovepipe Wells area. The wilderness area visitors could be affected leading to a long-term minor adverse impact.

Cultural Resources

Under the No-Action Alternative, historical conditions would remain the same in the Stovepipe Wells area as well as for Highway 190 (Eichbaum Toll Road). There would be no known immediate impact to archeological resources, either adverse or beneficial.

Cumulative Impacts

Past, present and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect cultural resources include several building construction projects; replacement of two old water tanks with a new NPS water tank; modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. These projects (especially the Highway 190 modification) would have the potential for affecting the Eichbaum Toll Road historical significance status if located within the APE for the Eichbaum Toll Road. All of these actions present the potential for negligible to minor impacts on cultural resources.

Conclusion

Under the No-Action Alternative, there would be no direct impacts to known cultural and archeological resources.

Section 106

Under 36 CFR 800, *Protection of Historic Properties*, an adverse effect occurs whenever an impact alters, directly or indirectly, any characteristic of a cultural resource that qualifies it for inclusion in the NRHP (e.g., diminishing the integrity [or the extent to which a resource retains its historic appearance or ability to provide information] of its location, design, setting, materials, workmanship, feeling, or association).

Under the No-Action Alternative, there would be no Section 106 undertaking. Under 36 CFR 800, the No-Action Alternative would therefore result in “no effect to historic properties” for cultural resources.

Visitor Use and Experience

Under the No-Action Alternative, visitation patterns in the Stovepipe Wells area would continue in conformity with current use patterns. Visitors would still not have cell phone coverage for many of the areas in the Stovepipe Wells and Scotty’s Castle areas which would be frustrating for some visitors, but would not bother other visitors that enjoy the solitude without the availability of constant communications. There would be no impact to visitors seeking solitude or opportunities for self-directed exploration and discovery.

Cumulative Impacts

Past, present and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect visitor use and experience include several building construction projects; replacement of two old water tanks with a new NPS water tank; modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. These projects would have the potential for enhancing visitor use by providing additional services and facilities. Visitors to the Stovepipe Wells and Scotty’s Castle areas would still not have cell phone coverage. All of these actions present the potential for minor to moderate beneficial impacts on visitor use and experience. Taking no action would continue to contribute to cumulative beneficial impacts on visitor use and experience associated with the identified future projects.

Conclusion

Under the No-Action Alternative, there would be negligible impacts to visitor experience. Visitors would continue to access the area on a seasonal basis for diverse forms of recreation, and would have ample opportunities for self-directed exploration.

Health and Safety

Under the No-Action Alternative, there would be no changes to the current health and safety conditions specific to the Stovepipe Wells and Scotty’s Castle areas. Visitors would continue to be exposed to risks associated with limited telephone communications. Emergency response

time to emergencies or accidents would also continue to be excessive due to lack of adequate telephone communications in many areas to notify authorities.

Cumulative Impacts

Past, present and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect health and safety include several building construction projects; replacement of two old water tanks with a new NPS water tank; modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. These projects would not have the potential for enhancing telephone communications and health and safety. Taking no action would continue to contribute to the existing health and safety risks associated with limited communication services in the Stovepipe Wells area.

Conclusion

Under the No-Action Alternative, there would be no change to public health and visitor safety. Visitors would continue to be exposed to long-term risks associated with limited telephone communication services.

Visual Resources

Under the No-Action Alternative, the existing visual landscape associated with the Stovepipe Wells area would not be changed. The existing landscape associated with the buildings, structures, and the AT&T tower at Stovepipe Wells would continue to dominate the landscape in the Stovepipe Wells area.

Cumulative Impacts

Past, present and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect visual resources include several building construction projects; replacement of two old water tanks with a new NPS water tank; modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. These projects would change the existing structures and visual landscape for wilderness visitors which could adversely affect their wilderness experience. This change or impact would be minor to moderate depending upon the location of the wilderness visitor. Taking no action would continue to contribute to cumulative adverse impacts on visual resources associated with the identified future projects.

Conclusion

Taking no action would not change the existing visual landscape in the Stovepipe Wells area. The identified future projects would certainly change the existing landscape, however, leading to a long-term minor to moderate adverse impact.

Park Operations

Under the No-Action Alternative, park operations in the Stovepipe Wells area would continue under the current operations for both the NPS and Death Valley Lodging.

Cumulative Impacts

Past, present and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect visitor use and experience include several building construction projects; replacement of two old water tanks with a new NPS water tank; modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. These projects would have the potential for enhancing park operations by providing additional services and facilities. All of these actions present the potential for minor to moderate beneficial impacts on visitor use and experience. Taking no action would continue to contribute to cumulative beneficial impacts on visitor use and experience associated with the identified future projects.

Conclusion

Under the No-Action Alternative, there would be no impact on park operations for either the NPS or Death Valley Lodging. Visitors would continue to access the area on a seasonal basis for diverse forms of recreation and would have ample opportunities for self-directed exploration.

ENVIRONMENTAL CONSEQUENCES - ALTERNATIVE B: COMMNET CELL SERVICE PROPOSAL - PREFERRED ALTERNATIVE

Soils

Under the Preferred Alternative, soils would be disturbed for construction of the cell tower and trenching activities associated with the electrical interconnection. A 20' x 30' area in a previously disturbed area would be graded and leveled for the cell tower. A 200-foot trench (one foot wide and 2 feet deep) would be dug for the electrical interconnection between the cell tower and the transformer. The trench would be backfilled with native soils. Soils along the trench should stabilize within one year to withstand heavy rainfall events. There would be short-term negligible to minor impacts associated with this alternative.

Cumulative Impacts

Past, present and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect soils include several building construction projects; replacement of two old water tanks with a new NPS water tank; modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. All of these actions present the potential for negligible to minor impacts on soil; collectively the impact will not exceed minor effects.

Conclusion

Compared to the No-Action Alternative, there are only short-term negligible impacts associated with Alternative B. The cumulative impacts to soils associated with the implementation of the identified future projects, however, would represent negligible to minor impacts on soils.

Wildlife

Under Alternative B, there would be no appreciable change or impact to terrestrial wildlife or associated wildlife habitat. A 600 square foot area of previously disturbed soil would be graded and leveled for the cell tower. The wildlife habitat quality is poor and the presence of wildlife is sparse and there would therefore be no short-term or long-term adverse impacts to terrestrial wildlife.

The erection of a monopole cell tower does represent a potential threat to killing migratory birds. The U.S. Fish and Wildlife Service (USFWS, 2013) has recently published revised guidelines for communication tower design, siting, construction, operation, retrofitting, and decommissioning. Based on these guidelines, the USFWS has recommended that communication towers should be not more than 199 feet above ground level (AGL), be unlit, and use lattice tower or monopole structures. The USFWS considers this option to be the “gold standard” and suggested this is the environmentally preferred industry standard for tower placement, construction, and operations. The proposed Commnet cell tower will meet this standard and be a 60-foot, unlit, monopole structure. There is always the potential for impacting migratory birds with a communication tower, and the impacts to migratory birds would be long-term with negligible adverse impacts.

Cumulative Impacts

Past, present and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect wildlife and wildlife habitat include several building construction projects; replacement of two old water tanks with a new NPS water tank; modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. Alternative B would not necessarily contribute to cumulative minor adverse impacts on wildlife and wildlife associated with the identified future projects. Potential impacts to migratory birds under Alternative B would be negligible and continue to contribute to cumulative minor adverse impacts on migratory birds associated with the identified future projects.

Conclusion

There would be negligible impacts to terrestrial wildlife or associated wildlife habitat. Construction of the cellular tower would have long-term negligible adverse impacts on migratory birds.

Special Status Species

Under Alternative B, there would likely be no effect on Special Status Species as there are no Special Status Species reported in the proposed project area.

Cumulative Impacts

There are no federally listed or candidate species in the Stovepipe Wells area. Limited wildlife habitat disturbance would be associated with the construction of the future projects identified in the cumulative impacts section. Because there are no known special status species in the Stovepipe Wells immediate area, there would be no impact on Special Status Species.

Conclusion

Implementing Alternative B would not result in short-term or long-term adverse impacts to Special Status Species.

Wilderness

Under Alternative B, the actual natural quality of wilderness character in and around Stovepipe Wells would not be changed. As indicated in the Visual Resource and Visitor Use and Experience Sections, the major wilderness concerns would center around wilderness users from the potential installation of a cellular tower structure 50% taller than any other structures in the village including the existing AT&T tower. The presence of a visible cellular tower in these areas would adversely impact the undeveloped aspect of wilderness character. Additionally, the presence of a cellular signal in the Mesquite Flat Dunes area with visitors using their phones in the wilderness could adversely impact the opportunities for solitude and unconfined recreation. Impact levels from the proposed action would range from long-term adverse negligible to moderate, depending on where visitors to the wilderness were located and their proximity to other visitors who might choose to use their cell phones in a wilderness setting.

Cumulative Impact

Past, present and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect wilderness include several building construction projects; replacement of two old water tanks with a new NPS water tank; modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. These projects would change the existing structures and visual landscape for wilderness visitors which could adversely affect their wilderness experience. This change or impact would be minor to moderate depending upon the location of the wilderness visitor. Adding the cellular tower

would continue to contribute to cumulative minor and moderate adverse impacts on wilderness associated with the identified future projects.

Conclusion

Under Alternative B, there would be negligible to moderate long-term adverse impacts on Wilderness from the construction of the cellular tower.

Cultural Resources

As indicated in Chapter 3, Cultural Resources Section, while there have been many cultural and archeological surveys conducted in the Stovepipe Wells Village area, there have been no recorded sites within the direct Area of Potential Effect (APE) for the tower. The Death Valley National Park Archeologist conducted field checks of the APE on July 16, 2013 and March 20, 2014. The project area consisted of previously disturbed land surfaces within the Stovepipe Wells developed area. The area has been significantly disturbed by grading and construction of infrastructure, but no cultural resources were noted and none are likely to be present and intact.

The two cultural resources identified in Chapter 3 that might be affected by the construction of the proposed cellular tower are the Stovepipe Wells Historic District and the former Eichbaum Toll Road. The Stovepipe Wells Historic District in 2012 was determined not eligible with concurrence from the State Historical Preservation Officer (SHPO). A determination of effect is not required.

The history of the Eichbaum Toll Road is described in Chapter 3. In the immediate area of Stovepipe Wells, The history of the Eichbaum Toll Road is described in Chapter 3. In the immediate area of Stovepipe Wells, the Eichbaum Toll Road follows the route of Highway 190 and an unpaved portion still exists as “two abandoned segments slowly being lost to erosion.

The Death Valley National Park Archeologist confirmed the presence of Eichbaum Toll Road segments adjacent to Stovepipe Wells on March 20, 2014. These segments are being lost to erosion on the alluvial fan and are approximately 700 feet northwest of the proposed cellular tower location.

Eichbaum Toll Road is being treated as eligible for the National Register of Historic Places and the NPS has completed a cultural resources determination of the effect of the proposed cellular tower (NPS, 2014).

The toll road is located outside of the APE for direct cultural resource impacts, but within the APE for visual impacts, which have the potential to affect the integrity of the road’s setting. Qualitative viewshed and contrast analyses resulted in a finding of negligible to minor visual impacts to the area surrounding Stovepipe Wells. The degree of contrast between the structure and surrounding background was found to be weak to moderate. The tower would be painted to blend in with the existing landscape to minimize visual impacts.

The viewshed of the Eichbaum Toll Road at Stovepipe Wells has been altered by the development of the resort complex including concession and park employee housing and

associated infrastructure. The historic setting of a dirt road leading to a cluster of isolated buildings and bungalows on a largely undeveloped landscape has been lost. While the Commnet tower will have an additional negligible impact on the setting, the effect will not be adverse.

Cumulative Impacts

Past, present and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect cultural resources include several building construction projects; replacement of two old water tanks with a new NPS water tank; modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. These projects (especially the Highway 190 modification) would have the potential for affecting the Eichbaum Toll Road historical significance status. All of these actions and the proposed cellular tower present the potential for negligible to minor adverse impacts on cultural resources.

Conclusion

Under Alternative B, there would be negligible impacts on cultural and historic resources; however, the effect would not be adverse.

Section 106

Under 36 CFR 800, *Protection of Historic Properties*, an adverse effect occurs whenever an impact alters, directly or indirectly, any characteristic of a cultural resource that qualifies it for inclusion in the NRHP (e.g., diminishing the integrity [or the extent to which a resource retains its historic appearance or ability to provide information] of its location, design, setting, materials, workmanship, feeling, or association).

Under Alternative B, there would be no adverse effects to historic structures eligible for or listed on the National Register of Historic Places.

Visitor Use and Experience

Under Alternative B, visitation patterns in the Stovepipe Wells area would continue in conformity with current use patterns. The cell tower, however, would be constructed and would provide substantial cell phone coverage in Death Valley National Park. Figure 12 shows the expected cell phone coverage by the following levels of coverage.

- Excellent Vehicle and In-Building Coverage
- Very Good Vehicle and In-Building Coverage
- Fair Vehicle and Marginal In-Building Coverage
- Marginal Vehicle and Very Poor In-Building Coverage

When considering all levels of cell phone coverage, the approximate area of cell phone coverage would be approximately 920 square miles. The highest level of coverage - excellent -

would cover approximately 340 square miles. The cell tower could enhance safety in the Park by increasing the cell phone coverage area. The cell coverage would help primarily in the Stovepipe Wells Area, along a portion of Scotty's Castle Road, and some of the area (Mud Canyon) along the road to Beatty (Daylight Pass Road). These are some of the highest used areas in the Park. This could either enhance visitors' experiences and safety in the Park by providing additional communication access, or distract from some visitors' experience through additional communication access.

During the scoping process for the project, nine comments were received from the public. Seven commenters generally supported the project from the standpoint of enhancing visitor experience and aiding in public safety and emergencies, as well as assisting communications with Park staff. Two commenters were against adding cell service in the Park as the new cell service would lessen the unique experience in Death Valley National Park and they preferred the sense of isolation. Generally, it appears the public recognizes the benefits of the cell tower.

Approximately 78% of the responders to the public scoping process were in favor of Alternative B. For those visitors that recognize the importance of the enhanced communication benefits, Alternative B would therefore result in a long-term major beneficial impact. For those visitors not in favor of increased cell phone coverage in the Park, Alternative B would result in a long-term moderate adverse impact.

Cumulative Impacts

Past, present and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect visitor use and experience include several building construction projects; replacement of two old water tanks with a new NPS water tank; modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. These projects would have the potential for enhancing visitor use by providing additional services and facilities. With the added cell phone coverage for approximately 920 square miles, visitors to the Stovepipe Wells and Scotty's Castle areas would have cell phone coverage which could enhance the visitor experience. All of these actions present the potential for minor to major beneficial impacts on visitor use and experience.

Conclusion

Compared to the No-Action Alternative, there are both long-term beneficial and moderate long-term adverse impacts on visitor use and experience associated with the increased cell phone coverage. Visitors would continue to access the area on a seasonal basis for diverse forms of recreation and would have ample opportunities for self-directed exploration.

Health and Safety

Compared to the No-Action Alternative, Alternative B would have a significant beneficial impact by increasing the area of cell phone coverage in Death Valley National Park. As indicated in the Visitor Use and Experience Section, the cell tower would provide some level of cell phone coverage to around 920 square miles (Figure 12). Most importantly, it would

provide coverage to high visitor use areas such as Stovepipe Wells, Scotty's Castle and the Daylight Pass Road. A primary health and safety concern in the area is the remoteness of these areas and the time lapse for emergency response to accidents or emergencies. For example, if an accident is witnessed on the midpoint of Scotty's Castle Road, a 30 minute drive would be required in either direction to report the accident. With faster communication capability, the lapse time between an accident or emergency and response time would therefore be reduced substantially, which would provide a long-term major beneficial impact to health and safety.

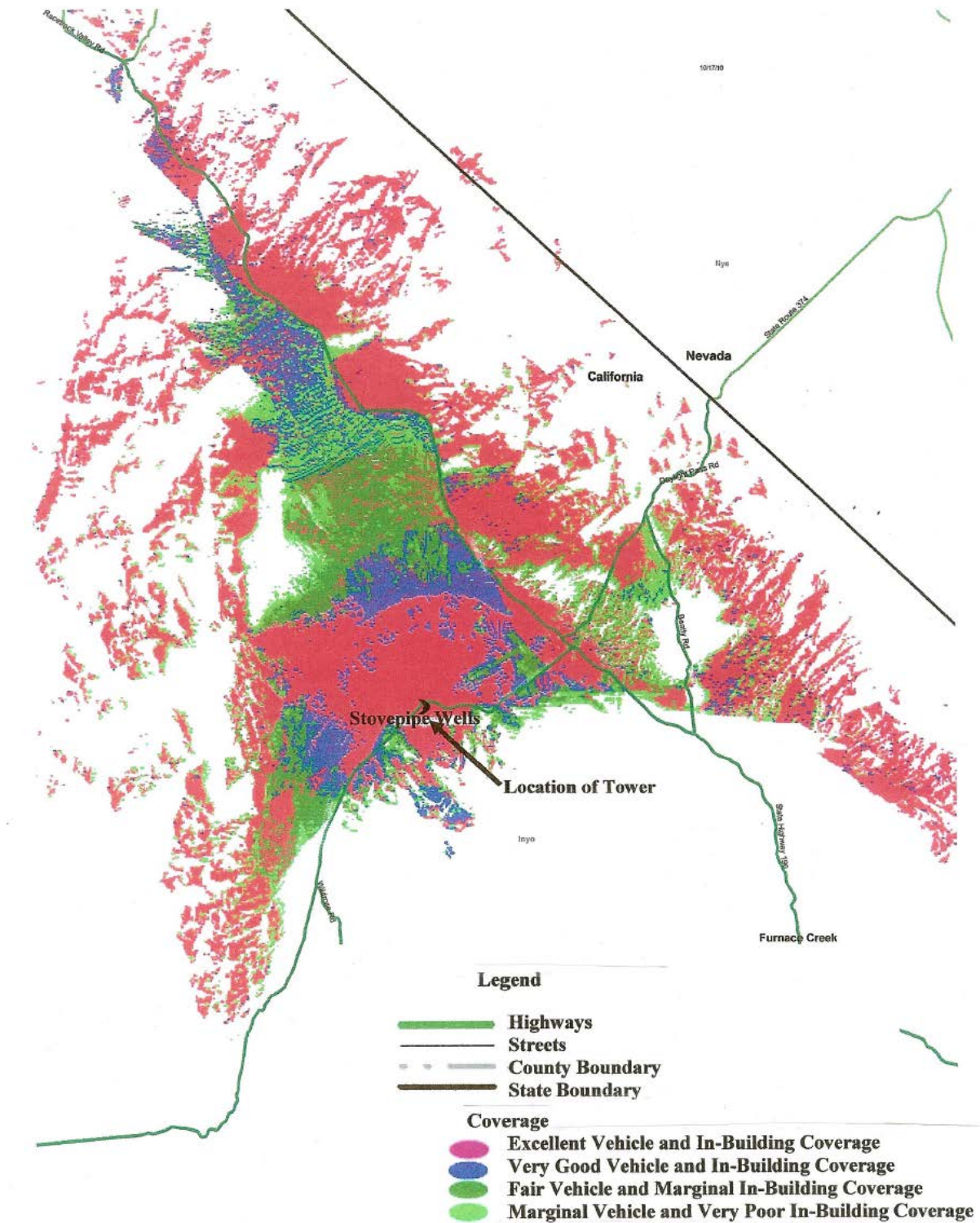


Figure 12. Commnet Wireless – Proposed Cell Phone Coverage

Cumulative Impacts

Past, present and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect health and safety include several building construction projects; replacement of two old water tanks with a new NPS water tank; modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. Providing cellular phone communication for implementation of these projects would reduce some of the potential health and safety risks associated by enhancing telephone communication services with the implementation of these projects.

Conclusion

Under Alternative B, there would be major long-term health and safety beneficial impacts from the construction of the cellular tower. With enhanced telephone communications, the lapse time between an accident or emergency and response time would be reduced substantially.

Park Operations

Under Alternative B, there would be a major long-term beneficial impact on park operations for both the NPS and Death Valley Lodging at Stovepipe Wells. The area of cell phone coverage would be increased and the Stovepipe Wells area would have excellent cell phone coverage from the proposed cell tower project. The additional cell phone coverage would enhance communications for park operations and increase efficiency over the existing landline telephone service provided by the AT&T microwave transmission relay tower providing service to the NPS and the concession operation.

Cumulative Impacts

Past, present and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect visitor use and experience include several building construction projects; replacement of two old water tanks with a new NPS water tank; modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. These projects would have the potential for enhancing park operations by providing additional services and facilities. With the addition of the cell phone coverage in the Stovepipe Wells area, there would be a major long-term beneficial impact on present and future park operations. All of these actions present the potential for minor to major beneficial impacts on visitor use and experience.

Conclusion

Under Alternative B, there would be major long-term beneficial impacts for park operations from the construction of the cellular tower. The additional cell phone coverage would enhance communications for park operations and increase efficiency over the existing landline telephone service.

Visual Resources

Under the Preferred Alternative, there would be visual changes to the landscape in the Stovepipe Wells area associated with construction of the proposed cell tower. The changes in visual setting would depend upon the location of the viewer and the distance from the cellular tower. A qualitative viewshed analysis was accomplished by driving along Highway 190 from both east and west of the proposed project area to determine the potential changes in the viewshed associated with the proposed project. The existing AT&T microwave tower, which is immediately adjacent to the proposed Commnet tower, served as the visual reference point for the field survey. Field observations were as follows:

From west to east on Highway 190:

- At mile marker 85.00, one cannot see the existing tower, which comes into view a few seconds after passing this mile marker at normal traffic speed.
- At the NPS sign advising visitors to pay their fee at the information station ahead, the tower is silhouetted against the Mesquite Flat sand dunes. The dark color of the tower provides a strong visual contrast with the golden-colored dunes. There is a disruption of the natural landscape and the primary features in view, besides the roadway, are the dunes and the tower.
- The tower becomes increasingly prominent at mile marker 85.5 and beyond to the intersection of Mosaic Canyon Road. Beyond this point, the road curves and the tower becomes obscured by the more prominent and closer buildings in Stovepipe Wells.

From east to west on Highway 190:

- The tower is visible in the distance from the Mesquite Flat Sand Dunes parking lot as well as from Highway 190 as it rises slightly in elevation.
- The tower grows in relative size as the driver approaches and is more prominent against the lighter-colored sections of the Cottonwood Mountains. One can see the tower at mile marker 87.50, although the white roofs of the Stovepipe Wells buildings are more prominent disruptions.
- At mile marker 87.00, the road descends slightly in elevation; and while the roofs are no longer visible, the existing tower is.
- At mile marker 86.50, the tower is visible through creosote bushes.
- At the NPS ranger station, the other developments at Stovepipe Wells (buildings in particular) are more prominent.

As indicated in Chapter 3, Visual Resource Section a visual resource contrast rating analysis was also performed and the detailed analysis is presented in Appendix C for various Key Observation Points (KOP). The NPS Interdisciplinary Team decided that visual simulation of the proposed cell tower with the existing landscape would help with the overall impact analysis. It was therefore decided that visual simulation would be performed at three of the nine KOPs. A detailed description of the existing landscape and the contrast analysis changes associated with constructing the cellular tower at the three KOPs is included in Tables 8, 9, and 10. The visual simulation for each of the three KOPs is presented in Figures 13, 14 and 15.

Table 8. Contrast Rating for Proposed Project at KOP 1B - Mosaic Canyon Road Looking North (0.8 Miles from Intersection of Mosaic Road and Highway 190)

1. LAND/WATER		2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground with flat to slightly rolling sand dunes in the middle ground. Dominated by bold and prominent mountains in the background.	Simple forms created by vegetation patterns, low sparse creosote brush cover, and smooth, regular patterns.	Stovepipe Wells Village is visible in the middle ground as a horizontal structure. The degree of contrast is moderate. The existing AT&T tower is visible as a vertical structure, and the proposed cell tower would slightly extend the vertical lines Above the AT&T tower.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical.	Weak and undulating horizontal lines created by changes in vegetative patterns.	Stovepipe Wells Village is visible and horizontal. Weak vertical lines are associated with the village but the AT&T tower slightly extends the vertical lines. The proposed cell tower would extend the vertical lines above the AT&T tower and the vertical lines would be distinct and highly visible from this KOP.
COLOR	Gray with some brown hues.	Primarily brown and green.	Stovepipe Wells Village is white. The AT&T tower is visible and black and provides a strong contrast in front of the sand dunes in the background. The proposed cell tower would not provide a significant color contrast over the existing contrast associated with the AT&T Tower at this KOP.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains.	Smooth to medium and patchy.	Medium with weak contrast, but the AT&T tower would extend texture in a vertical direction. The proposed cell tower would slightly change the existing texture.

DEGREE OF CONTRAST		FEATURES											
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENTS	FORM				X				X		X	X	
	LINE				X				X		X		
	COLOR				X				X		X	X	
	TEXTURE				X				X			X	

Summary

The proposed project will be visible from this KOP. At the present time the existing AT&T tower provides a strong color contrast in relationship to the sand dunes in the foreground. The proposed cell tower would not significantly change the color contrast at the present time but

would extend the vertical lines above the existing AT&T tower resulting in a moderate change in visual contrast.



Without Commnet Tower



With Commnet Tower

Figure 13. Simulation for Proposed Project at KOP 1B - Mosaic Canyon Road Looking North (0.8 Miles from Intersection of Mosaic Road and Highway 190)

Table 9. Contrast Rating for Proposed Project at KOP 2A - Mileage Markers 86.5 - West Bound Highway 190

1. LAND/WATER		2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in the foreground and dominated by the bold and prominent Cottonwood Mountains in the background.	Simple forms created by vegetation patterns, low continuous creosote brush cover, and smooth, regular patterns.	Stovepipe Wells Village is more visible in the background as a horizontal structure. While the Village can be seen from this KOP, the degree of contrast is weak to moderate. The existing AT&T tower is barely visible as a vertical structure, and the proposed cell tower would slightly extend the vertical lines.
LINE	Mostly horizontal in the foreground with the exception of the Cottonwood Mountains in the background which are vertical.	Weak and undulating horizontal lines created by changes in vegetative patterns.	Stovepipe Wells Village is visible and horizontal. Weak vertical lines are associated with the village; however, the AT&T tower slightly extends the vertical lines. The proposed cell tower would extend the vertical lines above the AT&T tower; however, the vertical lines would not be distinct or highly visible from this KOP.
COLOR	Gray with some brown hues.	Primarily brown and green.	Stovepipe Wells Village is white. The AT&T tower is visible and black and provides a strong contrast in front of the sand dunes in the background. The proposed cell tower would not provide a significant color contrast over the existing contrast associated with the AT&T tower at this KOP.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains.	Smooth to medium and patchy.	Medium with weak contrast, but the AT&T tower would extend texture in a vertical direction. The proposed cell tower would slightly change the existing texture.

DEGREE OF CONTRAST		FEATURES											
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENT	FORM				X				X		X	X	
	LINE				X				X		X	X	
	COLOR				X				X		X	X	
	TEXTURE				X				X			X	

Summary

The proposed project will be barely visible from this KOP. The existing AT&T tower is visible, but not dominant. The addition of the cell tower to the landscape at this KOP would represent a weak to moderate contrast over existing conditions.



Without Commnet Tower



With Commnet Tower

Figure 14. Simulation for Proposed Project at KOP 2A - Mileage Marker 86.5 - West Bound Highway 190

Table 10. Contrast Rating for Proposed Project at KOP 3A - East Bound Highway 190 at Mile Marker 85.5

1. LAND/WATER		2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in the foreground and dominated by prominent mountains in the background.	Simple forms created by vegetation patterns, low continuous creosote brush cover, and smooth, regular patterns.	Stovepipe Wells Village is dominate in the background as a horizontal structure with moderate to strong contrast. The existing AT&T tower is visible and silhouetted against the mountains in the background. The proposed cell tower would add additional vertical form to the landscape and this vertical form would extend higher.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical.	Weak and undulating horizontal lines created by changes in vegetative patterns.	Stovepipe Wells Village is dominate in the foreground as a horizontal structure. Moderate vertical lines are associated with the village while there are moderate to strong vertical lines associated with the AT&T tower. The proposed cell tower would add an additional vertical line to the landscape.
COLOR	Gray with some brown and tan hues.	Primarily brown and green.	Stovepipe Wells Village is white and gray. The AT&T tower is black and provides a strong visual contrast with the Stovepipe Wells Village and the mountains in the background. The proposed cell tower would not contribute a significant color contrast over the existing landscape setting at this KOP.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains.	Smooth to medium and patchy.	Medium with weak texture.

DEGREE OF CONTRAST		FEATURES											
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)			
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE
ELEMENTS	FORM				X				X		X	X	
	LINE				X				X		X		
	COLOR				X				X		X	X	
	TEXTURE				X				X			X	

Summary

The Stovepipe Wells Village and AT&T tower are very visible and provide a moderate to strong degree of contrast from this KOP. There is strong color contrast with the AT&T tower

against the mountains in the background. The proposed cell tower would not significantly change the color contrast, but would extend the vertical lines above the existing AT&T tower resulting in a moderate change in visual contrast.



Without Commnet Tower



With Commnet Tower

Figure 15. Simulation for Proposed Project at KOP 3A - East Bound Highway 190 at Mile Marker 85.5

A summary of the contrast rating and impact intensity for the three KOPs is presented in Table 11. Basically, depending upon where the viewer is located, the construction of the cellular tower would result in a range of long-term negligible to moderate adverse impacts to visual resources in the immediate area of Stovepipe Wells. The main change in contrast would be associated with the cellular tower extending the vertical lines in Stovepipe Wells.

Table 11. Summary of Contrast Rating and Impact Intensity

KOP	Contrast Rating	Impact Intensity
KOP 1B	Moderate	Moderate
KOP 2A	Weak to Moderate	Negligible to Minor
KOP 3A	Moderate	Moderate

Cumulative Impacts

Past, present and reasonably foreseeable future activities in the Stovepipe Wells area with the potential to affect visual resources include several building construction projects; replacement of two old water tanks with a new NPS water tank; modification of concession operations; roadway improvements to Highway 190; and electrical infrastructure modifications. These projects would change the existing structures and visual landscape for wilderness visitors which could adversely affect their wilderness experience. The additional change or impact associated with the cellular tower would result in a range of negligible to moderate impact. This change or impact would be minor to moderate depending upon the location of the wilderness visitor.

Conclusion

Based on reviewing the results of the qualitative viewshed analysis, visual contrast analysis at the KOPs, and the photo simulation, it can be concluded that construction of the cell tower would result in a range of long-term negligible to moderate adverse impacts to visual resources in the immediate area of Stovepipe Wells. The potential area of influence would be an approximate 0.5 to 0.8 mile radius around Stovepipe Wells.

Chapter 5: Consultation and Coordination

SCOPING

The project was discussed with Timbisha Shoshone tribal government on July 17, 2013. Formal consultation with the State Historic Preservation Officer (SHPO) and the Timbisha tribe was initiated on August 8, 2013. No comments were received.

The Park followed up with a formal scoping letter to the Chairman and Tribal Historic Preservation Office(r) (THPO) of the Timbisha Shoshone Tribe, the State Historic Preservation Office(r) (SHPO), and the U.S. Fish and Wildlife Service (USFWS) on August 8, 2013. The SHPO had no comments at the time. The USFWS response stated there are no federally listed, proposed, or candidate species, nor their critical habitats, known to exist in the project area. The USFWS also provided a copy of the 2013 USFWS Revised Guidelines for Communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning. All agency letters and responses are included in Appendix A to this document.

A press release initiating public scoping and describing the proposed action was issued on August 8, 2013, and public comments were solicited via the Park's mailing list and the NPS Planning, Environment and Public Comment website during a public scoping period that ended September 10, 2013. Nine comments were received. Seven commenters generally supported the project from the standpoint of enhancing visitor experience, aiding in public safety and emergencies, as well as assisting communications with Park staff. Two commenters were against adding cell service in the Park because the cell service would lessen the unique experience in Death Valley and they preferred the sense of isolation. One commenter felt the idea was worthy, but wanted a better image of what the visual impacts would be first.

A separate Section 106 compliance document was submitted to the California SHPO on April 1, 2014 requesting concurrence with the Park's definition of the APE, determination of eligibility for properties within the APE, and assessment of effects to the properties by the proposed project. Formal government to government consultation and request for comments was also submitted to the Timbisha Shoshone Tribe on the same date.

On May 7, 2014, the California SHPO's responded with additional questions regarding the project. The Park provided the requested information on May 29, 2014, with a follow up on July 31, 2014 and provided a copy of the Draft EA on September 3, 2014. No additional comments have been received from the SHPO's office.

The public and appropriate agencies will have an opportunity to review and comment on this environmental assessment. As described throughout this document, consultation has been ongoing with the SHPO and the Timbisha Shoshone Tribe.

LIST OF PREPARERS

This environmental assessment was prepared by the National Park Service at Death Valley National Park, with assistance from the Environmental Assessment Contractor, B&B, Inc. and the Pacific West Regional Office of the NPS.

The preparers of this document are:

Death Valley National Park

Mike Cipra	NPS/DEVA Environmental Protection Specialist
Blair Davenport	NPS/DEVA Cultural Resources Manager
Wanda Raschkow	NPS/DEVA Archeologist
Jane Cipra	NPS/DEVA Botanist
Richard Friese	NPS/DEVA Hydrologist/Geologist
Charlie Callagan	NPS/DEVA Wilderness Coordinator
Linda Manning	NPS/DEVA Wildlife Biologist

NPS Pacific West Region

Alan Schmierer	NPS/Pacific West Regional Environmental Coordinator
Dave Reynolds	NPS/Pacific West Senior Reality Specialist

B&B, Inc.

Martin Buys	Principal In Charge-Quality Control
Robert McDonald	Project Manager-Visual Resources
Laurie Lofland	Project Editor
Elaine Sipes	Visual Photo Simulation

DISTRIBUTION LIST

Agencies

Bureau of Land Management
California Department of Fish and Game
California Department of Transportation
California State Clearing House
California State Historic Preservation Office
Inyo County Board of Supervisors
Inyo County Planning Department

National Park Service
State Water Resources Control Board
U.S. Fish and Wildlife Service

Tribes

Timbisha Shoshone Tribe

Libraries

Amargosa Valley Library
Bishop Branch Library
Independence Central Library
Lone Pine Branch Library
Pahrump Community Library
Ridgecrest Branch Library

Organizations/Businesses

Amargosa Conservancy
Beatty Chamber of Commerce
Beatty Town Advisory Board
California Desert Protection League
California Native Plant Society
Center for Biological Diversity
Death Valley 49ers, Inc.
Death Valley Chamber of Commerce
Death Valley Conservancy
Death Valley Natural History Association
Desert Protective Council
Desert Research Institute
Furnace Creek Inn and Ranch Resort
High Desert Multiple Use Coalition
Lone Pine Chamber of Commerce
National Parks Conservation Association
Native American Rights Fund
Panamint Springs Resort
Sierra Club

REFERENCES

California Department of Fish and Game (CDF&G)

- 2010 State and Federally Listed Endangered, Threatened, and Rare Plants and Wildlife in California. Biogeographic Data Branch. Resource Management and Planning Division, The California Natural Diversity Database. Sacramento, CA.

National Park Service (NPS)

- 2014 Death Valley National Park, Assessment of Actions Having an Effect on Cultural Resources Commnet Proposed Cellular Service Installation at Stovepipe Wells, Cultural Resources Project No: DEVA 13-038.
- 2012 Determination of Eligibility Nomination Form: Stovepipe Wells Hotel. Christine Avery. National Register of Historic Places.
- 2006 Death Valley National Park Bird Species List. Internet Web site: http://www.nps.gov/deva/FrameSet_natural.htm. Furnace Creek, CA.
- 2002 Death Valley National Park, General Management Plan. Inyo and San Bernardino Counties, California and Esmeralda and Nye Counties, Nevada. Denver Service Center, Denver, CO.
- 1998 National Park Service Director's Order 28: *Cultural Resource Management Guideline*.

U.S. Fish and Wildlife Service (USFWS)

- 1998 Recovery Plan for the Inyo California Towhee (*Pipilo crissalis eremophilus*) Region 1, U.S. Fish and Wildlife Service, Portland, Oregon.
- 2013 U.S. Fish and Wildlife Service (USFWS) Revised Guidelines for Communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning -- Suggestions Based on Previous USFWS Recommendations to FCC Regarding WT Docket No. 03-187, FCC 06-164, Notice of Proposed Rulemaking, "Effects of Communication Towers on Migratory Birds," Docket No. 08-61, FCC's Antenna Structure Registration Program, and Service 2012 Wind Energy Guidelines

U.S Department of Bureau of Land Management

- 1986 Visual Resource Contrast Rating. BLM Manual Handbook 8431-1.

Appendix A: Agency Correspondence



United States Department of the Interior

NATIONAL PARK SERVICE

Death Valley National Park
PO Box 579
Death Valley, California 92328



IN REPLY REFER TO:
RMA 2

August 8, 2013

MAILED USPS CERTIFIED MAIL-RETURN RECEIPT

Barbara Durham, Tribal Historic Preservation Officer
Timbisha Shoshone Tribe
PO Box 358
Death Valley, CA 92328

Subject: Section 106 Consultation between the National Park Service and the Timbisha Shoshone Tribe for
Right-of-Way Application to Provide Cellular Telephone Service at Stovepipe Wells, Death Valley
National Park, Inyo County, California

Dear Ms. Durham:

Through this letter, the National Park Service (NPS), Death Valley National Park (Park) is seeking to initiate consultation with the Timbisha Shoshone Tribe in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC 470, et seq.) and its implementing regulation 36 CFR 800.3, for the following telecommunication project.

Commnet of Nevada LLC (Commnet) has submitted a right-of-way application to the NPS to provide cellular telephone service to the residents and visitors at Stovepipe Wells in Death Valley and surrounding areas. The NPS will consider this request in accordance with the Telecommunications Act of 1996, which authorizes but does not mandate that requests for new telecommunications sites be granted. The NPS is conducting an environmental assessment under the National Environmental Policy Act (NEPA) to analyze this proposal for cellular service, and is seeking public input to help identify potential issues and alternatives.

The Commnet proposal is to place a new 60-foot "Lite Site" tower on previously disturbed land at Stovepipe Wells, in close proximity to an existing telecommunications tower managed by AT&T/Pacific Bell Telephone Company (AT&T). Pursuant to NPS Management Policies (2006), the NPS has requested that the new facilities be co-located on the existing telecommunications tower. AT&T has formally reviewed and denied this request from the NPS and Commnet because of present and future capacity requirements. In addition to the new tower, Commnet proposes placing radio cabinets outside and adjacent to the tower. The equipment would be contained within a 20 feet x 30 feet fenced facility. Commnet would connect this cellular facility to adjacent commercial electrical power via underground conduit, which would require approximately 200 feet of trenching in previously disturbed areas. Under the proposal, adjacent disturbed areas would be used for construction sequencing, comprising approximately 50 feet x 50 feet. The NPS plans to examine the entire proposal in the context of all existing and reasonably foreseeable telecommunications facilities in the Stovepipe Wells area in order to accurately assess impacts to all associated resources. This environmental assessment would thereby serve as a long-term telecommunications plan for the Stovepipe Wells area.

The Commnet project is located in the vicinity of the Stove Pipe Wells Hotel Historic District (Hotel). By letter dated August 30, 2012, the Park sought California State Historic Preservation Office (SHPO) consensus with the NPS's finding that the Hotel is ineligible for listing on the National Register of Historic Places, due to a loss of integrity. By letter dated January 28, 2013, the SHPO concurred with the NPS that the Hotel complex is significant under Criterion A at a local level, but lacks historic integrity as a result of several additions and modifications after the period of significance (1926-1936). However, the SHPO did NOT concur that California State Highway 190, located within the view shed of the Commnet project, is not eligible for listing in the NRHP. According to the SHPO, "Much of Highway 190 follows the former Eichbaum Toll Road, which has been designated as a California State Historical Landmark. While the SHPO acknowledges that the road has been modified since 1936, the extent of these changes is not clearly defined in the DOE information provided, and further research would be necessary to determine and record its potential significance and historic integrity for the purposes of NRHP eligibility."

The Park informed the Timbisha Shoshone Tribal Historic Preservation Officer of the project March 5, 2013 at the Park's Environmental Review Committee meeting. At the July 17, 2013 Park and Tribe Quarterly meeting, both the THPO and the Tribal Administrator were updated on the project.

Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulation, the NPS will continue consultation with the SHPO and the Tribe to assess potential effects on historic properties. Pursuant to NEPA and the Council on Environmental Quality (CEQ) regulations, the NPS is conducting public scoping in order to identify potential issues and develop alternatives regarding the proposed action. Public comments are currently being accepted on this project until September 10, 2013.

We look forward to your input on the proposed project. If you have any questions please contact Blair Davenport, Cultural Resource Manager (760/786-3287).

Sincerely,



Kathy Billings
Superintendent

Attachments:

Stove Pipe Wells Hotel National Register Boundary Map (1 page)
Commnet Engineering Plan (5 pages)

RM:BDavenport:mbd:08/6/2013:760-786-3287



United States Department of the Interior

NATIONAL PARK SERVICE
Death Valley National Park
PO Box 579
Death Valley, California 92328



IN REPLY REFER TO:
RM.A.2

August 8, 2013

MAILED USPS CERTIFIED MAIL-RETURN RECEIPT

George Gholson, Chairman
Timbisha Shoshone Tribe
PO Box 1779
Bishop, CA 93515

Subject: Section 106 Consultation between the National Park Service and the Timbisha Shoshone Tribe for Right-of-Way Application to Provide Cellular Telephone Service at Stovepipe Wells, Death Valley National Park, Inyo County, California

Dear Chairman Gholson:

Through this letter, the National Park Service (NPS), Death Valley National Park (Park) is seeking to initiate consultation with the Timbisha Shoshone Tribe in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC 470, et seq.) and its implementing regulation 36 CFR 800.3, for the following telecommunication project.

Commnet of Nevada LLC (Commnet) has submitted a right-of-way application to the NPS to provide cellular telephone service to the residents and visitors at Stovepipe Wells in Death Valley and surrounding areas. The NPS will consider this request in accordance with the Telecommunications Act of 1996, which authorizes but does not mandate that requests for new telecommunications sites be granted. The NPS is conducting an environmental assessment under the National Environmental Policy Act (NEPA) to analyze this proposal for cellular service, and is seeking public input to help identify potential issues and alternatives.

The Commnet proposal is to place a new 60-foot "Lite Site" tower on previously disturbed land at Stovepipe Wells, in close proximity to an existing telecommunications tower managed by AT&T/Pacific Bell Telephone Company (AT&T). Pursuant to NPS Management Policies (2006), the NPS has requested that the new facilities be co-located on the existing telecommunications tower. AT&T has formally reviewed and denied this request from the NPS and Commnet because of present and future capacity requirements. In addition to the new tower, Commnet proposes placing radio cabinets outside and adjacent to the tower. The equipment would be contained within a 20 feet x 30 feet fenced facility. Commnet would connect this cellular facility to adjacent commercial electrical power via underground conduit, which would require approximately 200 feet of trenching in previously disturbed areas. Under the proposal, adjacent disturbed areas would be used for construction sequencing, comprising approximately 50 feet x 50 feet. The NPS plans to examine the entire proposal in the context of all existing and reasonably foreseeable telecommunications facilities in the Stovepipe Wells area in order to accurately assess impacts to all associated resources. This environmental assessment would thereby serve as a long-term telecommunications plan for the Stovepipe Wells area.

The Commnet project is located in the vicinity of the Stove Pipe Wells Hotel Historic District (Hotel). By letter dated August 30, 2012, the Park sought California State Historic Preservation Office (SHPO) consensus with the NPS's finding that the Hotel is ineligible for listing on the National Register of Historic Places, due to a loss of integrity. By letter dated January 28, 2013, the SHPO concurred with the NPS that the Hotel complex is significant under Criterion A at a local level, but lacks historic integrity as a result of several additions and modifications after the period of significance (1926-1936). However, the SHPO did NOT concur that California State Highway 190, located within the view shed of the Commnet project, is not eligible for listing in the NRHP. According to the SHPO, "Much of Highway 190 follows the former Eichbaum Toll Road, which has been designated as a California State Historical Landmark. While the SHPO acknowledges that the road has been modified since 1936, the extent of these changes is not clearly defined in the DOE information provided, and further research would be necessary to determine and record its potential significance and historic integrity for the purposes of NRHP eligibility."

The Park informed the Timbisha Shoshone Tribal Historic Preservation Officer of the project March 5, 2013 at the Park's Environmental Review Committee meeting. At the July 17, 2013 Park and Tribe Quarterly meeting, both the THPO and the Tribal Administrator were updated on the project.

Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulation, the NPS will continue consultation with the SHPO and the Tribe to assess potential effects on historic properties. Pursuant to NEPA and the Council on Environmental Quality (CEQ) regulations, the NPS is conducting public scoping in order to identify potential issues and develop alternatives regarding the proposed action. Public comments are currently being accepted on this project until September 10, 2013.

We look forward to your input on the proposed project. If you have any questions please contact Blair Davenport, Cultural Resource Manager (760/786-3287).

Sincerely,



Kathy Billings
Superintendent

Attachments:

Stove Pipe Wells Hotel National Register Boundary Map (1 page)
Commnet Engineering Plan (5 pages)

RM:BDAVENPORT:mbd:08/6/2013:760-786-3287



United States Department of the Interior

NATIONAL PARK SERVICE

Death Valley National Park
PO Box 579
Death Valley, California 92328



IN REPLY REFER TO:
RMA.2

August 8, 2013

MAILED USPS CERTIFIED MAIL-RETURN RECEIPT

Carol Roland-Nawi, Ph.D.
State Historic Preservation Officer
Department of Parks and Recreation
Post Office Box 942896
Sacramento, CA 94296-0001

Attn: Mark Beason, State Historian II

Subject: Section 106 Consultation between the National Park Service and the State Historic Preservation Officer
for Right-of-Way Application to Provide Cellular Telephone Service at Stovepipe Wells, Death Valley
National Park, Inyo County, California

Dear Dr. Roland-Nawi:

Through this letter, the National Park Service (NPS), Death Valley National Park (Park) is seeking to initiate consultation with the California State Historic Preservation Officer (SHPO) in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC 470, et seq.) and its implementing regulation 36 CFR 800.3, for the following telecommunication project.

Commnet of Nevada LLC (Commnet) has submitted a right-of-way application to the NPS to provide cellular telephone service to the residents and visitors at Stovepipe Wells in Death Valley and surrounding areas. The NPS will consider this request in accordance with the Telecommunications Act of 1996, which authorizes but does not mandate that requests for new telecommunications sites be granted. The NPS is conducting an environmental assessment under the National Environmental Policy Act (NEPA) to analyze this proposal for cellular service, and is seeking public input to help identify potential issues and alternatives.

The Commnet proposal is to place a new 60-foot "Lite Site" tower on previously disturbed land at Stovepipe Wells, in close proximity to an existing telecommunications tower managed by AT&T/Pacific Bell Telephone Company (AT&T). Pursuant to NPS Management Policies (2006), the NPS has requested that the new facilities be co-located on the existing telecommunications tower. AT&T has formally reviewed and denied this request from the NPS and Commnet because of present and future capacity requirements. In addition to the new tower, Commnet proposes placing radio cabinets outside and adjacent to the tower. The equipment would be contained within a 20 feet x 30 feet fenced facility. Commnet would connect this cellular facility to adjacent commercial electrical power via underground conduit, which would require approximately 200 feet of trenching in previously disturbed areas. Under the proposal, adjacent disturbed areas would be used for construction sequencing, comprising approximately 50 feet x 50 feet. The NPS plans to examine the entire proposal in the

context of all existing and reasonably foreseeable telecommunications facilities in the Stovepipe Wells area in order to accurately assess impacts to all associated resources. This environmental assessment would thereby serve as a long-term telecommunications plan for the Stovepipe Wells area.

The Commnet project is located in the vicinity of the Stove Pipe Wells Hotel Historic District (Hotel). By letter dated August 30, 2012, the Park sought SHPO consensus with the NPS's finding that the Hotel is ineligible for listing on the National Register of Historic Places, due to a loss of integrity. By letter dated January 28, 2013, the SHPO concurred with the NPS that the Hotel complex is significant under Criterion A at a local level, but lacks historic integrity as a result of several additions and modifications after the period of significance (1926-1936). However, the SHPO did NOT concur that California State Highway 190, located within the view shed of the Commnet project, is not eligible for listing in the NRHP. According to the SHPO, "Much of Highway 190 follows the former Eichbaum Toll Road, which has been designated as a California State Historical Landmark. While the SHPO acknowledges that the road has been modified since 1936, the extent of these changes is not clearly defined in the DOE information provided, and further research would be necessary to determine and record its potential significance and historic integrity for the purposes of NRHP eligibility."

The Park informed the Timbisha Shoshone Tribal Historic Preservation Officer of the project March 5, 2013 at the Park's Environmental Review Committee meeting. At the July 17, 2013 Park and Tribe Quarterly meeting, both the THPO and the Tribal Administrator were updated on the project. In general, the Tribe has no objections with the project at this time.

Pursuant to Section 106 of the National Historic Preservation Act and its implementing regulation, the NPS will continue consultation with the SHPO and the Tribe to assess potential effects on historic properties. Pursuant to NEPA and the Council on Environmental Quality (CEQ) regulations, the NPS is conducting public scoping in order to identify potential issues and develop alternatives regarding the proposed action. Public comments are currently being accepted on this project until September 10, 2013.

We look forward to your input on the proposed project. If you have any questions please contact Blair Davenport, Cultural Resource Manager (760/786-3287).

Sincerely,


Kathy Billings
Superintendent

Attachments:

Stove Pipe Wells Hotel National Register Boundary Map (1 page)
Commnet Engineering Plan (5 pages)

RM:BDAVENPORT:mdb:08/6/2013:760-786-3287



United States Department of the Interior

NATIONAL PARK SERVICE
Death Valley National Park
PO Box 579
Death Valley, California 92328



IN REPLY REFER TO:
RM.A.2

August 8, 2013

Carl Benz
Section 7 Program Coordinator
US Fish and Wildlife Service
2493 Portola Road, Suite B
Ventura, CA 93003

Re: Consultation between the National Park Service and the US Fish and Wildlife Service for Right-of-Way Application to Provide Cellular Telephone Service at Stovepipe Wells, Death Valley National Park, Inyo County, California

Dear Mr. Benz:

Commnet of Nevada LLC (Commnet) has submitted a right-of-way application to the National Park Service (NPS) to provide cellular telephone service to the residents and visitors at Stovepipe Wells in Death Valley and surrounding areas. The NPS will consider this request in accordance with the Telecommunications Act of 1996, which authorizes but does not mandate that requests for new telecommunications sites be granted. The NPS is conducting an environmental assessment under the National Environmental Policy Act (NEPA) to analyze this proposal for cellular service, and is seeking public input to help identify potential issues and alternatives.

The purpose of this letter is: 1) to solicit your agency's comments on the proposed action, 2) to inform you that pursuant to this NEPA process, the NPS intends to meet all obligations under Section 7 of the Endangered Species Act, and 3) to request information on whether any species, or their critical habitats, which are listed, proposed to be listed, candidates to be listed, or otherwise listed may be present in the project area. Our wildlife biologist is not currently aware of any listed or candidate species in the proposed project area. However, the NPS will use all information you provide us to determine potential effects of the proposed action on any identified species and habitats.

The Commnet proposal is to place a new 60-foot "Lite Site" tower on previously disturbed land at Stovepipe Wells, in close proximity to an existing telecommunications tower managed by AT&T/Pacific Bell Telephone Company (AT&T). Pursuant to NPS Management Policies (2006), the NPS has requested that the new facilities be co-located on the existing telecommunications tower. AT&T has formally reviewed and denied this request from the NPS and Commnet because of present and future capacity requirements. In addition to the new tower, Commnet proposes placing radio cabinets outside

and adjacent to the tower. The equipment would be contained within a 20 feet x 30 feet fenced facility. Commnet would connect this cellular facility to adjacent commercial electrical power via underground conduit, which would require approximately 200 feet of trenching in previously disturbed areas. Under the proposal, adjacent disturbed areas would be used for construction sequencing, comprising approximately 50 feet x 50 feet. The NPS plans to examine the entire proposal in the context of all existing and reasonably foreseeable telecommunications facilities in the Stovepipe Wells area in order to accurately assess impacts to all associated resources. This environmental assessment would thereby serve as a long-term telecommunications plan for the Stovepipe Wells area.

Engineering drawings of the proposal, including a map showing the location of Stovepipe Wells and the proposed project footprint, are enclosed for your review. If you have any questions about the proposal, please contact the park's Environmental Protection Specialist Mike Cipra at 760-786-3227, or Mike_Cipra@nps.gov. Thank you in advance for your input on this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Kathy Billings". The signature is fluid and cursive, with the first name "Kathy" and last name "Billings" clearly distinguishable.

Kathy Billings
Park Superintendent

Enclosure: Commnet Engineering Plan (5 pages)



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003



IN REPLY REFER TO:
08VEN00-2013-SL-0404

September 5, 2013

Memorandum

To: Park Superintendent, Death Valley National Park, National Park Service, Death Valley, California

From: *Acia* Assistant Field Supervisor, Ventura Fish and Wildlife Office, U.S. Fish and Wildlife Service, Ventura, California *Jim Smith*

Subject: Species List for and Comments on the Proposed Right-of-Way Application to Provide Cellular Telephone Services at Stovepipe Wells, Death Valley National Park, Inyo County, California (RM.A.2)

We are responding to your letter, dated August 8, 2013, and received in our office, August 12, 2013, requesting information on federally listed, proposed, and candidate species, and critical habitat that may occur in the vicinity of the subject project. The project would involve the installation of a new 60-foot tall "Lite Site" tower at Stovepipe Wells, which is located in Death Valley National Park, Inyo County, California. This letter fulfills our requirements under section 7(c) of the Endangered Species Act of 1973, as amended (Act). This memorandum also provides our comments on the environmental assessment that you are preparing in accordance with the National Environmental Policy Act (NEPA).

The project proponent, Commnet of Nevada LLC (Commnet), is proposing to install a new communications tower in a previously disturbed area adjacent to an existing AT&T communications tower. Commnet also proposes to place radio cabinets outside and adjacent to the new tower within a 20-by-30 foot fenced facility. Commnet would connect this facility to adjacent commercial electrical power via underground conduit, which would require approximately 200 feet of trenching in previously disturbed areas. Commnet would use adjacent disturbed areas, approximately 50 feet by 50 feet in size, for construction sequencing.

Based upon a review of the project location and available information, no federally listed, candidate, or proposed species or critical habitat occurs within the vicinity of the subject project. However, new information from updated surveys, changes in distribution of listed species, altered habitat conditions, or other factors could change this conclusion.

Only federally listed species receive protection under the Act; however, species listed by the State of California or otherwise considered to be sensitive should be considered in the planning

process in the event that they become listed or proposed for listing prior to project completion. We recommend that you also review information in the California Department of Fish and Wildlife's Natural Diversity Database. You can contact the California Department of Fish and Wildlife at (916) 324-3812 for information on other sensitive species that may occur in this area.

Our comments on the environmental assessment for the subject project have to do with potential effects to migratory birds. The project has the potential to adversely affect migratory birds in the area. For this reason, we recommend that any land or vegetation clearing or other surface disturbance associated with the proposed action within the project area be timed to avoid potential destruction of active bird nests or young. Such destruction may be in violation of the Migratory Bird Treaty Act of 1918, as amended. Under the Migratory Bird Treaty Act, nests (nests with eggs or young) of migratory birds may not be harmed, nor may migratory birds be killed. If avoiding impacts is not feasible, we recommend a qualified biologist survey the area prior to construction. If nests are located or if other evidence of nesting (e.g., mated pairs, territorial defense, carrying nesting material, transporting food) is observed, a protective buffer (the size depending on the habitat requirements of the species) should be delineated and the entire area avoided to prevent destruction or disturbance to nests until they are no longer active. In order to assist you in planning efforts for this project, we have included the U.S Fish and Wildlife Service's 2013 revised communication tower guidance (see attachment).

If you have any questions regarding this matter, please contact Erin Nordin of my staff at (760) 872-5020.

Attachment

2013 U.S. Fish and Wildlife Service (USFWS) Revised Guidelines for Communication Tower Design, Siting, Construction, Operation, Retrofitting, and Decommissioning -- Suggestions Based on Previous USFWS Recommendations to FCC Regarding WT Docket No. 03-187, FCC 06-164, Notice of Proposed Rulemaking, "Effects of Communication Towers on Migratory Birds," Docket No. 08-61, FCC's Antenna Structure Registration Program, and Service 2012 Wind Energy Guidelines

Submitted by:

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Last updated: April 19, 2013

[CommTower2013 Revised Guidance to FCC-AMM.docx]

1. Collocation of the communications equipment on an existing communication tower or other structure (e.g., billboard, water and transmission tower, distribution pole, or building mount) is strongly recommended. Depending on tower load factors and communication needs, from 6 to 10 providers should collocate on an existing tower or structure provided that frequencies do not overlap/"bleed" or where frequency length or broadcast distance requires higher towers. New towers should be designed structurally and electronically to accommodate the applicant's antenna, and antennas of at least 2 additional users -- ideally 6 to 10 additional users, if possible - - unless the design would require the addition of lights and/or guy wires to an otherwise unlit and/or unguyed tower. This recommendation is intended to reduce the number of towers needed in the future.
2. If collocation is not feasible and a new tower or towers are to be constructed, it is strongly recommended that the new tower(s) should be not more than 199 feet above ground level (AGL), and that construction techniques should not require guy wires. Such towers should be unlighted if Federal Aviation Administration (FAA) regulations and lighting standards (FAA 2007, Patterson 2012, FAA 2013 lighting circular anticipated update) permit. Instead, we recommend using lattice tower or monopole structures. The Service considers this option the "gold standard" and suggests that this is the environmentally preferred industry standard for tower placement, construction and operation -- i.e., towers that are unlit, unguyed, monopole or lattice, and less than 200 ft AGL.
3. If constructing multiple towers, the cumulative impacts of all the towers to migratory birds -- especially to Birds of Conservation Concern (FWS 2008) and threatened and endangered species, as well as the impacts of each individual tower, should be considered during the development of a project.

4. The topography of the proposed tower site and surrounding habitat should be clearly noted, especially in regard to surrounding hills, mountains, mountain passes, ridge lines, rivers, lakes, wetlands, and other habitat types used by raptors, Birds of Conservation Concern, and state and federally listed species, and other birds of concern. Active raptor nests, especially those of Bald and Golden Eagles, should be noted, including known or suspected distances from proposed tower sites to nest locations. Nest site locations for Golden Eagles may vary between years, and unoccupied, inactive nests and nest sites may be re-occupied over multiple years. The Service's 2012 Draft Eagle Conservation Plan Guidance, Version 1 (Wind), available on our website, is a useful document (FWS 2011).

5. If at all possible, new towers should be sited within existing "antenna farms" (i.e., clusters of towers), in degraded areas (e.g., strip mines or other heavily industrialized areas), in commercial agricultural lands, in Superfund sites, or other areas where bird habitat is poor or marginal. Towers should not be sited in or near wetlands, other known bird concentration areas (e.g., state of federal refuges, staging areas, rookeries, and Important Bird Areas), in known migratory, daily movement flyways, areas of breeding concentration, in habitat of threatened or endangered species, or key habitats for Birds of Conservation Concern (FWS 008). Disturbance can result in effects to bird populations which may cumulatively affect their survival. The Service has recommended some disturbance-free buffers, e.g., 0.5 mi around raptor nests during the nesting season, and 1-mi disturbance free buffers for Ferruginous Hawks and Bald Eagles during nesting season in Wyoming (FWS WY Ecological Services Field Office, referenced in Marville 2007:23). The effects of towers on "prairie grouse," "sage grouse," and grassland and shrub-steppe bird species should also be considered since tall structures have been shown to result in abandonment of nest site areas and leks, especially for "prairie grouse" (Marville 2004). The issue of buffers is currently under review, especially for Bald and Golden Eagles. Additionally, towers should not be sited in areas with a high incidence of fog, mist, and low cloud ceilings.

6. If taller (> 199 ft 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 strobe or red strobe lights (red preferable), or red flashing incandescent lights should be used at night, and these should be the minimum number, minimum intensity (< 2,000 candela), and minimum number of flashes per minute (i.e., longest duration between flashes/"dark phase") allowable by the FAA. The use of solid (non-flashing) warning lights at night should be avoided (Patterson 2012, Gehring et al. 2009). Current research indicates that solid red lights attract night-migrating birds at a much higher rate than flashing lights (Gehring et al. 2009, Marville 2007, 2009). Recent research indicates that use of white strobe, red strobe, or red flashing lights alone provides significant reductions in bird fatalities (Patterson 2012, Gehring et al. 2009).

7. Tower designs using guy wires for support, which are proposed to be located in known raptor or waterbird concentrations areas, daily movement routes, major diurnal migratory bird movement routes, staging areas, or stopover sites, should have daytime visual markers or bird deterrent devices installed on the wires to prevent collisions by these diurnally moving species. The efficacy of bird deterrents on guy wires to alert night migrating species has yet to be scientifically validated. For guidance on markers, see Avian Power Line Interaction Committee

(APLIC). 2006. *Suggested Practices for Avian Protection on Power Lines – State of the Art in 2006*. Edison Electric Institute, APLIC, and the California Energy Commission. Washington, DC, and Sacramento, CA. 207 pp. And APLIC. 2012. *Reducing Avian Collisions with Power Lines – the State of the Art in 2012*. Edison Electric Institute and APLIC. Washington, DC. 159 pp. Also see www.aplic.org, www.energy.ca.gov, or call 202-508-5000.

8. Towers and appendant facilities should be designed, sited, and constructed so as to avoid or minimize habitat loss within and adjacent to the tower "footprint." However, a larger tower footprint is preferable to the use of guy wires in construction. Several shorter, un-guyed towers are preferable to one, tall guyed, lighted tower. Road access and fencing should be minimized to reduce or prevent habitat fragmentation, disturbance, and the creation of barriers, and to reduce above ground obstacles to birds in flight.

9. If, prior to tower design, siting and construction, if it has been determined that a significant number of breeding, feeding and roosting birds, especially of Birds of Conservation Concern (FWS 2008) and state or federally-listed bird species are known to habitually use the proposed tower construction area, relocation to an alternate site is highly recommended. If this is not an option, seasonal restrictions on construction are advised in order to avoid disturbance, site and nest abandonment, especially during breeding, rearing and other periods of high bird activity.

10. Security lighting for on-ground facilities, equipment and infrastructure should be motion- or heat-sensitive, down-shielded, and of a minimum intensity to reduce nighttime bird attraction and eliminate constant nighttime illumination, but still allow safe nighttime access to the site (FWS 2012, Manville 2011).

11. Representatives from the USFWS or researchers from the Research Subcommittee of the Communication Tower Working Group should be allowed access to the site to evaluate bird use; conduct dead-bird searches; place above ground net catchments below the towers (Manville 2002); and to perform studies using radar, Global Position System, infrared, thermal imagery, and acoustical monitoring, as necessary. This will allow for assessment and verification of bird movements, site use, avoidance, and mortality. The goal is to acquire information on the impacts of various tower types, sizes, configurations and lighting protocols.

12. Towers no longer in use, not re-licensed by the FCC for use, or determined to be obsolete should be removed from the site within 12 months of cessation of use, preferably sooner.

13. In order to obtain information on the usefulness of these guidelines in preventing bird strikes and better understanding impacts from habitat fragmentation, please advise USFWS and TPWD personnel of the final location and specifications of the proposed tower, and which measures recommended in these guidelines were implemented. If any of these recommended measures cannot be implemented, please explain why they are not feasible. This will further advise USFWS in identifying any recurring problems with the implementation of the guidelines, which may necessitate future modifications.

Reference Sources:

Federal Aviation Administration,. 2007. Obstruction marking and lighting. Advisory Circular AC 70/7460-1K. U.S. Department of Transportation.

Gehring, J., P. Kerlinger, and A.M. Manville, II. 2009. Communication towers, lights and birds: successful methods of reducing the frequency of avian collisions. *Ecological Applications* 19(2): 505-514. Ecological Society of America.

Gehring, J., P. Kerlinger, and A.M. Manville, II. 2011. The role of tower height and guy wires on avian collisions with communication towers. *Journal of Wildlife Management* 75(4): 848-855. The Wildlife Society.

Manville, A.M., II. 2002. Protocol for monitoring the impact of cellular telecommunication towers on migratory birds within the Coconino, Prescott, and Kaibab National Forests, Arizona. Protocol requested by U.S. Forest Service. 9 pp.

Manville, A.M., II. 2004. Prairie grouse leks and wind turbines: U.S. Fish and Wildlife Service justification for a 5-mile buffer from leks; additional grassland songbird recommendations. Division of Migratory Bird Management, USFWS, Arlington, VA, peer-reviewed briefing paper. 17 pp.

Manville, A.M., II. 2007. Comments of the U.S. Fish and Wildlife Service Submitted Electronically to the FCC on 47 CFR Parts 1 and 17, WT Docket No. 03-187, FCC 06-164, Notice of Proposed Rulemaking, "Effects of Communication Towers on Migratory Birds." February 2, 2007. 32 pp.

Manville, A.M., II. 2009. Towers, turbines, power lines, and buildings -- steps being taken by the U.S. Fish and Wildlife Service to avoid or minimize take of migratory birds at these structures. Pages 262-272 *In* T.D. Rich, C. Arizmendi, D. Demarest, and C. Thompson (eds.). *Tundra to Tropics: Connecting Habitats and People*. Proceedings 4th International Partners in Flight Conference, McAllen, TX.

Manville, A.M., II. 2011. Comments of the U.S. Fish and Wildlife Service's Division of Migratory Bird Management Filed Electronically on WT Docket No. 08-61 and WT Docket No. 03-187, Regarding the Environmental Effects of the Federal Communication's Antenna Structure Registration Program. January 14, 2011. 12 pp.

Patterson, J.T., Jr. 2012. Evaluation of new obstruction lighting techniques to reduce avian fatalities. DOT/FAA/TC-TN12/9, Federal Aviation Administration, U.S. Department of Transportation. 28 pp, plus appendices.

U.S. Fish and Wildlife Service. 2000. Service Guidance on the Siting, Construction, Operation, and Decommissioning of Communication Towers. September 14, 2000. <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

APPENDIX B CDMI-Lite Site Flyer-Design and Construction Information



Lite-Site

QUICK DEPLOY CELL SITES

The patented Lite-Site (US patent # 7,098,864) is a self contained wireless cell site. It is a modular system consisting of a base frame, fence, pole and antenna mounts.

The Lite-Site minimizes both visual impact and cost of a site. The Lite-Site uses a small diameter monopole to attach low wind area antennas which creates a site that has minimal visual impact and also minimal wind area. The small wind area creates loading on the pole which requires much less of a base foundation system.

The Lite-Site base frame is similar to a non-penetrating roof mounted sled. The Lite-Site base frame is placed atop crushed gravel or similarly prepared area and filled with ballast. Ballast can be concrete block, ballast blocks, gabions or the base frame can be used as a form and poared concrete added for a permanent site.

The base frame has built in adapters for a fence and access gate to be attached directly to the base. The base also has attachment points for the pole, electronic cabinets and grounding system.





Lite-Site base frame, Tapered Steel Monopole and Lite-Site Fencing delivered to site location.



A few hours later, the site is ready for electronics installation.



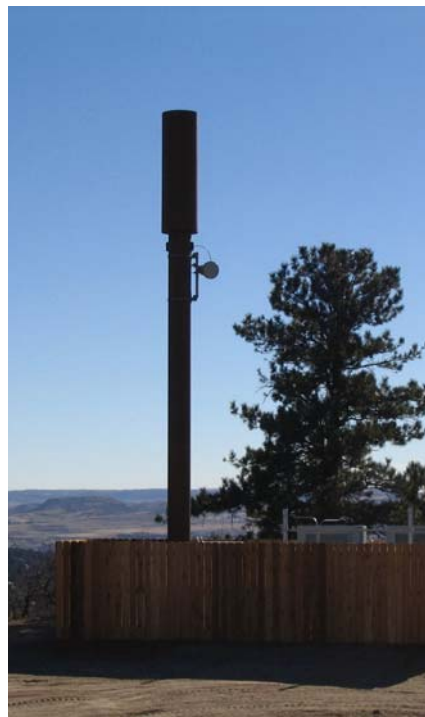
55' tall fiberglass monopole
With (6) 5' panel antennas on
4' separation arms
Northeast Pennsylvania



Poured concrete base frame
Las Vegas area



30' tall steel pipe monopole
With (3) close contact pipe mount
On top of parking garage
Southern California



30' painted pipe monopole
With antenna shroud and microwave
Wooden fenced compound area
Denver area



70' (3) piece pipe monopole
With (3) close contact antennas
On parking area above river
Chicago area



Temporary site with concrete
Block ballast locally supplied
San Francisco area



Delivery to the site of Lite-Site base frame, monopole, antenna mounts, fencing and ballast blocks.



Lite-Site base frame is assembled on a level compacted gravel base. Base plate assembly is installed in the base frame and ballast and fencing begins being installed.



The monopole is normally assembled in the horizontal position (in the rain) with antennas and coax cables installed before erection. The monopole can be raised by crane or lifting device.



Ballast and fencing is completed and electronics begins to be installed.

APPENDIX C
VISUAL RESOURCE ASSESSMENT



Location of Key Observation Points (KOP)

Key Observation Points-Along Mosaic Canyon Road Looking North Towards Stovepipe Wells		
KOP 1	At Mosaic Canyon Parking Lot (2.2 Miles from the intersection of Mosaic Canyon Road and Highway 190)	See Worksheets for Detail
KOP 1A	Mosaic Road (1.4 Miles from the intersection of Mosaic Canyon Road and Highway 190)	See Worksheets for Detail
KOP 1B	Mosaic Road (0.8 Miles from the intersection of Mosaic Canyon Road and Highway 190)	See Worksheets for Detail
Key Observation Points- Along Highway 190-Looking West Towards Stovepipe Wells		
KOP 2	Mesquite Flat Sand Dunes Parking Lot- West Bound Highway 190	See Worksheets for Detail
KOP 2A	Mileage Marker 86.5- West Bound Highway 190	See Worksheets for Detail
KOP 2B	Looking Southeast From Intersection of Highway 190 and Entrance to Ranger Station	See Worksheets for Detail
Key Observation Points- Along Highway 190-Looking East Towards Stovepipe Wells		
KOP 3	East Bound Highway 190 Approaching NPS Sign	See Worksheets for Detail
KOP 3A	East Bound Highway 190 at Mile Marker 85.5	See Worksheets for Detail
KOP 3B	Near Intersection of Mosaic Canyon Road and Highway 190	See Worksheets for Detail



KOP 1- At Mosaic Trail Parking Lot (2.2 Miles from Intersection of Mosaic Road and Highway 190)



KOP 1A-Mosaic Road Looking North (1.4 Miles from Intersection of Mosaic Road and Highway 190)



KOP 1B-Mosaic Road Looking North (0.8 Miles from Intersection of Mosaic Road and Highway 190) 100 feet south of Wilderness Area

VISUAL CONTRAST RATING WORKSHEET

Date: 11/20/2013

District/ N/A

Resource Area:

Activity (program): Cell Tower

SECTION A. PROJECT INFORMATION

1. Project Name Proposed Commnet Cell Tower-Stovepipe Wells Village Death Valley National Park	4. Location Township_____	5. Location Sketch (See attached Photo)
2. Key Observation Point KOP 1- At Mosaic Canyon Parking Lot (2.2 Miles from Intersection of Mosaic Road and Highway 190)	Range _____	
3. VRM Class	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground and dominated by bold and prominent mountains in the background and to the left	Simple forms created by vegetation patterns, low continuous creosote brush cover and smooth, regular patterns	Stovepipe Wells Village is barely visible in the background as a horizontal structure. The degree of contrast is weak. The existing AT& T tower is not visible from this KOP.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background and to the left which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns.	Stovepipe Wells Village is barely visible and horizontal. Weak vertical lines associated with the village.
COLOR	Gray with some brown hues	Primarily brown and green	Roads are gray and Stovepipe Wells Village is white.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains	Smooth to medium and patchy.	Medium with weak textures

SECTION C. PROPOSED ACTIVITY DESCRIPTION (Construct the Commnet Cell Tower)

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground and dominated by bold and prominent mountains in the background and to the left	Simple forms created by vegetation patterns, low continuous creosote brush cover and smooth, regular patterns.	Stovepipe Wells Village is barely visible in the background as a horizontal structure with weak contrast. The existing AT& T tower is not visible as a vertical structure, and the proposed cell tower would not be seen from this KOP.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background and to the left which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns	Stovepipe Wells Village is barely visible and horizontal. Weak vertical lines are associated with the Village and the AT&T tower is not visible. . The proposed cell tower would not be visible from this KOP.
COLOR	Gray with some brown hues	Primarily brown and green	Roads are gray and Stovepipe Wells Village is white. The AT&T tower is not visible and the proposed cell tower would not provide a color contrast at this KOP.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains	Smooth to medium and patchy.	Medium with weak contrast

SECTION D. CONTRAST RATING __SHORT TERM XLONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? __Yes __No (Explain on reverse side)	
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)					
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE		
ELEMENTS	FORM				X				X				X		3. Additional mitigating measures recommended __Yes __ No (Explain on reverse side)
	LINE				X				X				X		
	COLOR				X				X				X		

Evaluator's Name: Robert McDonald

Date: 11/20/2013

	TEXTURE				X				X			X		
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SECTION D. (Continued)

Comments from item 2

Does Project Design Meet Visual Resource Management Objectives? Yes

The proposed project will not be visible from this KOP because the Stovepipe Wells is hardly visible, so there would be no change in contrast with construction of the cell tower.

Additional Mitigating Measures (See item 3)

None.

VISUAL CONTRAST RATING WORKSHEET

Date: 11/20/2013

District/ N/A

Resource Area:

Activity (program): Cell Tower

SECTION A. PROJECT INFORMATION

1. Project Name Proposed Commnet Cell Tower-Stovepipe Wells Village Death Valley National Park	4. Location Township_____	5. Location Sketch (See attached Photo)
2. Key Observation Point KOP 1A-Mosaic Road Looking North (1.4 Miles from Intersection of Mosaic Road and Highway 190)	Range _____	
3. VRM Class	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground with flat to slightly rolling sand dunes in the middle ground and dominated by bold and prominent mountains in the background	Simple forms created by vegetation patterns, low sparse creosote brush cover and smooth, regular patterns	Stovepipe Wells Village is slightly more visible in the background as a horizontal structure. The degree of contrast is weak. The existing AT& T tower is not visible from this KOP.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns.	Stovepipe Wells Village is barely visible and horizontal. Weak vertical lines associated with the village.
COLOR	Gray with some brown and tan hues	Primarily brown and green	Roads are gray and Stovepipe Wells Village is white.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains	Smooth to medium and patchy.	Medium with weak textures

SECTION C. PROPOSED ACTIVITY DESCRIPTION (Construct the Commnet Cell Tower)

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground with flat to slightly rolling sand dunes in the middle ground and dominated by bold and prominent mountains in the background	Simple forms created by vegetation patterns, low sparse creosote brush cover and smooth, regular patterns	Stovepipe Wells Village is barely visible in the background as a horizontal structure with weak contrast. The existing AT& T tower is not visible as a vertical structure, and the proposed cell tower would not be seen from this KOP.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns	Stovepipe Wells Village is barely visible and horizontal. Weak vertical lines are associated with the Village and the AT&T tower is not visible. . The proposed cell tower would not be visible from this KOP.
COLOR	Gray with some brown and tan hues	Primarily brown and green	Roads are gray and Stovepipe Wells Village is white. The AT&T tower is not visible and the proposed cell tower would not provide a color contrast at this KOP.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains	Smooth to medium and patchy.	Medium with weak contrast

SECTION D. CONTRAST RATING __SHORT TERM XLONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? __Yes __No (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	
ELEMENTS	FORM				X				X			X		3. Additional mitigating measures recommended __Yes __ No (Explain on reverse side)
	LINE				X				X			X		
	COLOR				X				X			X		
Evaluator's Name: Robert McDonald Date: 11/20/2013														

	TEXTURE				X				X			X		
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SECTION D. (Continued)

Comments from item 2

Does Project Design Meet Visual Resource Management Objectives? Yes

While the Stovepipe Wells Village is slightly more visible than at KOP 1, the AT&T tower is not visible. Therefore, the proposed project will not be visible from this KOP.

Additional Mitigating Measures (See item 3)

None.

VISUAL CONTRAST RATING WORKSHEET

Date: 11/20/2013

District/ N/A

Resource Area:

Activity (program): Cell Tower

SECTION A. PROJECT INFORMATION

1. Project Name Proposed Commnet Cell Tower-Stovepipe Wells Village Death Valley National Park	4. Location Township_____	5. Location Sketch (See attached Photo)
2. Key Observation Point KOP 1B-Mosaic Road Looking North (0.8 Miles from Intersection of Mosaic Road and Highway 190)	Range _____	
3. VRM Class	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground with flat to slightly rolling sand dunes in the middle ground and dominated by bold and prominent mountains in the background	Simple forms created by vegetation patterns, low sparse creosote brush cover and smooth, regular patterns	Stovepipe Wells Village is visible in the middle ground as a horizontal structure. The degree of contrast is moderate. The existing AT& T tower is visible as a vertical structure.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns.	Stovepipe Wells Village is visible and horizontal. Weak vertical lines associated with the village but the AT&T tower slightly extends the vertical lines
COLOR	Gray with some brown and tan hues	Primarily brown and green	Stovepipe Wells Village is white. The AT&T tower is visible and is black and provides a strong contrast in front of the sand dunes in the background.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains	Smooth to medium and patchy.	Medium with weak contrast, but AT&T tower extends texture in a vertical direction

SECTION C. PROPOSED ACTIVITY DESCRIPTION (Construct the Commnet Cell Tower)

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground with flat to slightly rolling sand dunes in the middle ground and dominated by bold and prominent mountains in the background	Simple forms created by vegetation patterns, low sparse creosote brush cover and smooth, regular patterns.	Stovepipe Wells Village is visible in the middle ground as a horizontal structure. The degree of contrast is moderate. The existing AT& T tower is visible as a vertical structure, and the proposed cell tower would slightly extend the vertical lines above the AT&T Tower.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns	Stovepipe Wells Village is visible and horizontal. Weak vertical lines are associated with the village but the AT&T tower slightly extends the vertical lines. The proposed cell tower would extend the vertical lines above the AT&T Tower and the vertical lines would be distinct and highly visible from this KOP
COLOR	Gray with some brown hues	Primarily brown and green	Stovepipe Wells Village is white. The AT&T tower is visible and is black and provides a strong contrast in front of the sand dunes in the background. The proposed cell tower would not provide a significant color contrast over the existing contrast associated with the AT&T Tower at this KOP.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains	Smooth to medium and patchy.	Medium with weak contrast, but the AT&T tower would extend texture in a vertical direction. The proposed cell tower would slightly change the existing texture.

SECTION D. CONTRAST RATING __SHORT TERM _X_LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? __Yes __No (Explain on reverse side) 3. Additional mitigating measures recommended __Yes __ No (Explain on reverse side) Evaluator's Name: Robert McDonald Date: 11/20/2013
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	
ELEMENTS	FORM				X				X		X	X		
	LINE				X				X		X			
	COLOR				X				X		X	X		
	TEXTURE				X				X			X		

SECTION D. (Continued)

Comments from item 2

Does Project Design Meet Visual Resource Management Objectives? Yes

The proposed project will be visible from this KOP. At the present time the existing AT&T tower provides a strong color contrast in relationship to the sand dunes in the foreground. The proposed cell tower would not significantly change the color contrast at the present time but would extend the vertical lines above the existing AT&T tower resulting in a moderate change in visual contrast.

Additional Mitigating Measures (See item 3)

None.



KOP 2-From Mesquite Flat Sand Dunes Parking Lot Looking Towards Stovepipe Wells



KOP 2 A-From Mileage Marker 86.5 Looking Towards Stovepipe Wells Village



KOP 2 A-From Mileage Marker 86.5 Looking Towards Stovepipe Wells Village



KOP 2 B- Looking Southeast From Intersection of Highway 190 and Entrance to Ranger Station

VISUAL CONTRAST RATING WORKSHEET

Date: 11/20/2013

District/ N/A

Resource Area:

Activity (program): Cell Tower

SECTION A. PROJECT INFORMATION

1. Project Name Proposed Commnet Cell Tower-Stovepipe Wells Village Death Valley National Park	4. Location Township_____	5. Location Sketch (See attached Photo)
2. Key Observation Point KOP 2A Mileage Marker 86.5- West Bound Highway 190	Range _____	
3. VRM Class	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground and dominated by bold and prominent Cottonwood Mountains in the background	Simple forms created by vegetation patterns, low continuous creosote brush cover and smooth, regular patterns	Stovepipe Wells Village is more visible in the background as a horizontal structure. The degree of contrast is weak to moderate. The existing AT& T tower is barely visible as a vertical structure.
LINE	Mostly horizontal in the foreground with the exception of the Cottonwood Mountains in the background which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns.	Stovepipe Wells Village is visible and horizontal. Weak vertical lines associated with the village but the AT&T tower slightly extends the vertical lines
COLOR	Gray with some brown hues	Primarily brown and green	Roads are gray and Stovepipe Wells Village is white. The AT&T tower is barely visible and is black and provides a small contrast in front of the Cottonwood Mountains.
TEXTURE	Smooth to medium for the foreground and coarse for the Cottonwood Mountains	Smooth to medium and patchy.	Medium with weak contrast, but AT&T tower would extend texture in a vertical direction

SECTION C. PROPOSED ACTIVITY DESCRIPTION (Construct the Commnet Cell Tower)

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground and dominated by bold and prominent Cottonwood Mountains in the background	Simple forms created by vegetation patterns, low continuous creosote brush cover and smooth, regular patterns.	Stovepipe Wells Village is more visible in the background as a horizontal structure. While the Village can be seen from this KOP, the degree of contrast is weak to moderate. The existing AT& T tower is barely visible as a vertical structure, and the proposed cell tower would slightly extend the vertical lines
LINE	Mostly horizontal in the foreground with the exception of the Cottonwood Mountains in the background which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns	Stovepipe Wells Village is visible and horizontal. Weak vertical lines are associated with the village but the AT&T tower slightly extends the vertical lines. The proposed cell tower would extend the vertical lines above the AT&T Tower but the vertical lines would not be distinct or highly visible from this KOP
COLOR	Gray with some brown hues	Primarily brown and green	Roads are gray and Stovepipe Wells Village is white. The AT&T tower is barely visible and is black and provides a small contrast in front of the Cottonwood Mountains. The proposed cell tower would not provide a significant color contrast at this KOP.
TEXTURE	Smooth to medium for the foreground and coarse for the Cottonwood Mountains	Smooth to medium and patchy.	Medium with weak contrast, but AT&T tower would extend texture in a vertical direction. The proposed cell tower would not change existing texture significantly.

SECTION D. CONTRAST RATING SHORT TERM X LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? <u> </u> Yes <u> </u> No (Explain on reverse side) 3. Additional mitigating measures recommended <u> </u> Yes <u> </u> No (Explain on reverse side) Evaluator's Name: Robert McDonald Date: 11/20/2013
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	
ELEMENTS	FORM				X				X		X	X		
	LINE				X				X		X	X		
	COLOR				X				X		X	X		
	TEXTURE				X				X			X		

SECTION D. (Continued)

Comments from item 2

Does Project Design Meet Visual Resource Management Objectives? Yes

The proposed project will be barely visible from this KOP. The existing AT&T Tower is visible but not dominant. The addition of the cell tower to the landscape at this KOP would represent a weak to moderate contrast over existing conditions.

Additional Mitigating Measures (See item 3)

None.

VISUAL CONTRAST RATING WORKSHEET

Date: 11/20/2013

District/ N/A

Resource Area:

Activity (program): Cell Tower

SECTION A. PROJECT INFORMATION

1. Project Name Proposed Commnet Cell Tower-Stovepipe Wells Village Death Valley National Park	4. Location Township_____	5. Location Sketch (See attached Photo)
2. Key Observation Point KOP 2 B Looking Southeast From Intersection of Highway 190 and Entrance to Ranger Station	Range _____	
3. VRM Class	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground and dominated by bold and prominent mountains in the background	Simple forms created by vegetation patterns, low continuous creosote brush cover and smooth, regular patterns	Stovepipe Wells Village is very visible in the foreground as a horizontal structure. The degree of contrast is moderate. The existing AT& T tower is visible as a vertical structure.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns.	Stovepipe Wells Village is visible and horizontal. Weak vertical lines associated with the village but the AT&T tower extends the vertical lines
COLOR	Gray with some brown hues	Primarily brown and green	Roads are gray and Stovepipe Wells Village is white. The AT&T tower is visible and is black and provides a contrast in front of the mountains.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains	Smooth to medium and patchy.	Medium with weak contrast, but AT&T tower would extend texture in a vertical direction

SECTION C. PROPOSED ACTIVITY DESCRIPTION (Construct the Commnet Cell Tower)

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground and dominated by bold and prominent mountains in the background	Simple forms created by vegetation patterns, low continuous creosote brush cover and smooth, regular patterns.	Stovepipe Wells Village is very visible in the foreground as a horizontal structure. The degree of contrast is moderate. The existing AT& T tower is visible as a vertical structure., and the proposed cell tower would y extend the vertical lines.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns	Stovepipe Wells Village is visible and horizontal. Weak vertical lines associated with the village but the AT&T tower extends the vertical lines .The proposed cell tower would extend the vertical lines above the AT&T Tower and the vertical lines would be visible from this KOP
COLOR	Gray with some brown hues	Primarily brown and green	Roads are gray and Stovepipe Wells Village is white. The AT&T tower is visible and is black and provides a contrast in front of the mountains. The proposed cell tower would not provide a significant color contrast at this KOP because it would blend in with the color of the background mountains.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains	Smooth to medium and patchy.	Medium with weak contrast, but AT&T tower would extend texture in a vertical direction. The proposed cell tower would not change existing texture significantly.

SECTION D. CONTRAST RATING SHORT TERM X LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? <u> </u> Yes <u> </u> No (Explain on reverse side)
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	
ELEMENTS	FORM				X				X		X			3. Additional mitigating measures recommended <u> </u> Yes <u> </u> No (Explain on reverse side)
	LINE				X				X		X			
	COLOR				X				X		X	X		
	TEXTURE				X				X			X		

Evaluator's Name: Robert McDonald
Date: 11/20/2013

SECTION D. (Continued)

Comments from item 2

Does Project Design Meet Visual Resource Management Objectives? Yes

The existing AT&T Tower is visible but not dominant. The proposed project will be visible from this KOP but not dominant as well. The addition of the cell tower to the landscape at this KOP would represent a moderate contrast over existing conditions.

Additional Mitigating Measures (See item 3)

None.



KOP 3 East Bound Approaching NPS Sign



KOP 3A East Bound at 85.5



KOP 3B Near Intersection of Mosaic Road and Highway 190

VISUAL CONTRAST RATING WORKSHEET

Date: 11/20/2013

District/ N/A

Resource Area:

Activity (program): Cell Tower

SECTION A. PROJECT INFORMATION

1. Project Name Proposed Commnet Cell Tower-Stovepipe Wells Village Death Valley National Park	4. Location Township_____	5. Location Sketch (See attached Photo)
2. Key Observation Point KOP 3 East Bound Highway 190 Approaching NPS Sign	Range _____	
3. VRM Class	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground and dominated by bold and prominent mountains in the background	Simple forms created by vegetation patterns, low continuous creosote brush cover and smooth, regular patterns	Stovepipe Wells Village is barely visible in the background as a horizontal structure. The degree of contrast is weak. The existing AT& T tower is visible silhouetted against the Mesquite Flat sand Dunes.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns.	Stovepipe Wells Village is barely visible and horizontal. Weak vertical lines associated with the village while there are moderate vertical lines associated with the AT&T Tower.
COLOR	Gray with some brown and tan hues	Primarily brown and green	Roads are gray and Stovepipe Wells Village is white. The AT&T Tower is black and provides a strong visual contrast with the golden-colored dunes.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains	Smooth to medium and patchy.	Medium with weak textures

SECTION C. PROPOSED ACTIVITY DESCRIPTION (Construct the Commnet Cell Tower)

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground and dominated by bold and prominent mountains in the background	Simple forms created by vegetation patterns, low continuous creosote brush cover and smooth, regular patterns.	Stovepipe Wells Village is barely visible in the background as a horizontal structure with weak contrast. The existing AT& T tower is visible silhouetted against the Mesquite Flat sand Dunes. The proposed cell tower would add additional vertical form to the landscape.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns	Stovepipe Wells Village is barely visible and horizontal. Weak vertical lines associated with the village while there are moderate vertical lines associated with the AT&T Tower. The proposed cell tower would add an additional vertical line to the landscape. .
COLOR	Gray with some brown and tan hues	Primarily brown and green	Roads are gray and Stovepipe Wells Village is white. The AT&T Tower is black and provides a strong visual contrast with the golden-colored dunes. The proposed cell tower would not provide a significant color contrast a color contrast at this KOP.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains	Smooth to medium and patchy.	Medium with weak texture

SECTION D. CONTRAST RATING SHORT TERM X LONG TERM

1.	FEATURES			2. Does project design meet visual resource
	LAND/WATER BODY (1)	VEGETATION (2)	STRUCTURES (3)	

DEGREE OF CONTRAST		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	management objectives? <input type="checkbox"/> Yes <input type="checkbox"/> No (Explain on reverse side)
ELEMENTS	FORM				X				X		X	X		3. Additional mitigating measures recommended ____ Yes <input type="checkbox"/> No (Explain on reverse side) Evaluator's Name: Robert McDonald Date: 11/20/2013
	LINE				X				X		X	X		
	COLOR				X				X		X	X		
	TEXTURE				X				X			X		

SECTION D. (Continued)

Comments from item 2

Does Project Design Meet Visual Resource Management Objectives? Yes

The AT&T Tower is slightly visible from this KOP. There is strong color contrast with the Tower against the Mesquite Flat Sand Dunes. The proposed cell tower would not significantly change the color contrast at the present time but would extend the vertical lines above the existing AT&T tower resulting in a weak to moderate change in visual contrast.

Additional Mitigating Measures (See item 3)

None.

VISUAL CONTRAST RATING WORKSHEET

Date: 11/20/2013

District/ N/A

Resource Area:

Activity (program): Cell Tower

SECTION A. PROJECT INFORMATION

1. Project Name Proposed Commnet Cell Tower-Stovepipe Wells Village Death Valley National Park	4. Location Township_____	5. Location Sketch (See attached Photo)
2. Key Observation Point KOP 3A East Bound Highway 190 at Mile Marker 85.5	Range _____	
3. VRM Class	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground and dominated by bold and prominent mountains in the background	Simple forms created by vegetation patterns, low continuous creosote brush cover and smooth, regular patterns	Stovepipe Wells Village is more visible in the background as a horizontal structure The degree of contrast is weak to moderate. The existing AT& T tower is more visible and still silhouetted against the Mesquite Flat sand dunes.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns.	Stovepipe Wells Village is more visible and horizontal. Moderate vertical lines are associated with the village while there are moderate vertical lines associated with the AT&T Tower.
COLOR	Gray with some brown and tan hues	Primarily brown and green	Roads are gray and Stovepipe Wells Village is white. The AT&T Tower is black and provides a strong visual contrast with the golden-colored dunes.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains	Smooth to medium and patchy.	Medium with weak textures

SECTION C. PROPOSED ACTIVITY DESCRIPTION (Construct the Commnet Cell Tower)

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground and dominated by bold and prominent mountains in the background	Simple forms created by vegetation patterns, low continuous creosote brush cover and smooth, regular patterns.	Stovepipe Wells Village is more visible in the background as a horizontal structure with weak contrast. The existing AT& T Tower is more visible silhouetted against the Mesquite Flat sand Dunes The proposed cell tower would add additional vertical form to the landscape.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns	Stovepipe Wells Village is more visible and horizontal. Moderate vertical lines are associated with the village while there are moderate vertical lines associated with the AT&T Tower. The proposed cell tower would add an additional vertical line to the landscape. .
COLOR	Gray with some brown and tan hues	Primarily brown and green	Roads are gray and Stovepipe Wells Village is white. The AT&T Tower is black and provides a strong visual contrast with the golden-colored dunes. The proposed cell tower would not provide a significant color contrast over the existing landscape setting at this KOP.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains	Smooth to medium and patchy.	Medium with weak texture

SECTION D. CONTRAST RATING SHORT TERM X LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? <u> </u> Yes <u> </u> No (Explain on reverse side) 3. Additional mitigating measures recommended <u> </u> Yes <u> </u> No (Explain on reverse side) Evaluator's Name: Robert McDonald Date: 11/20/2013
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	
ELEMENTS	FORM				X				X		X	X		
	LINE				X				X		X			
	COLOR				X				X		X	X		
	TEXTURE				X				X			X		

SECTION D. (Continued)

Comments from item 2

Does Project Design Meet Visual Resource Management Objectives? Yes

The Stovepipe Wells Village and AT&T Tower are more visible from this KOP. There is strong color contrast with the AT&T Tower against the Mesquite Flat Sand Dunes. The proposed cell tower would not significantly change the color contrast but would extend the vertical lines above the existing AT&T tower resulting in a moderate change in visual contrast.

Additional Mitigating Measures (See item 3)

None.

VISUAL CONTRAST RATING WORKSHEET

Date: 11/20/2013

District/ N/A

Resource Area:

Activity (program): Cell Tower

SECTION A. PROJECT INFORMATION

1. Project Name Proposed Commnet Cell Tower-Stovepipe Wells Village Death Valley National Park	4. Location Township_____	5. Location Sketch (See attached Photo)
2. Key Observation Point KOP 3B Near Intersection of Mosaic Road and Highway 190	Range _____	
3. VRM Class	Section_____	

SECTION B. CHARACTERISTIC LANDSCAPE DESCRIPTION

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground and dominated by prominent mountains in the background	Simple forms created by vegetation patterns, low continuous creosote brush cover and smooth, regular patterns	Stovepipe Wells Village is dominate in the foreground as a horizontal structure The degree of contrast is moderate to strong. The existing AT& T tower is visible and silhouetted against the mountains in the background.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns.	Stovepipe Wells Village is dominate in the foreground as a horizontal structure Moderate vertical lines are associated with the village while there are moderate to strong vertical lines associated with the AT&T Tower.
COLOR	Gray with some brown and tan hues	Primarily brown and green	Stovepipe Wells Village is white and gray. The AT&T Tower is black and provides a strong visual contrast with the Stovepipe Wells Village and the mountains in the background.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains	Smooth to medium and patchy.	Medium with weak textures

SECTION C. PROPOSED ACTIVITY DESCRIPTION (Construct the Commnet Cell Tower)

	1. LAND/WATER	2. VEGETATION	3. STRUCTURES
FORM	Gently rolling terrain in foreground and dominated by prominent mountains in the background	Simple forms created by vegetation patterns, low continuous creosote brush cover and smooth, regular patterns.	Stovepipe Wells Village is dominate in the background as a horizontal structure with moderate to strong contrast. The existing AT& T tower is visible and silhouetted against the mountains in the background. The proposed cell tower would add additional vertical form to the landscape and vertical form would extend higher.
LINE	Mostly horizontal in the foreground with the exception of the mountains in the background which are vertical	Weak and undulating horizontal lines created by changes in vegetative patterns	Stovepipe Wells Village is dominate in the foreground as a horizontal structure Moderate vertical lines are associated with the village while there are moderate to strong vertical lines associated with the AT&T Tower. The proposed cell tower would an additional vertical line to the landscape.
COLOR	Gray with some brown and tan hues	Primarily brown and green	Stovepipe Wells Village is white and gray. The AT&T Tower is black and provides a strong visual contrast with the Stovepipe Wells Village and the mountains in the background.. The proposed cell tower would not contribute a significant color contrast over the existing landscape setting at this KOP.
TEXTURE	Smooth to medium for the foreground and coarse for the mountains	Smooth to medium and patchy.	Medium with weak texture

SECTION D. CONTRAST RATING SHORT TERM X LONG TERM

1. DEGREE OF CONTRAST		FEATURES												2. Does project design meet visual resource management objectives? <u> </u> Yes <u> </u> No (Explain on reverse side) 3. Additional mitigating measures recommended <u> </u> Yes <u> </u> No (Explain on reverse side) Evaluator's Name: Robert McDonald Date: 11/20/2013
		LAND/WATER BODY (1)				VEGETATION (2)				STRUCTURES (3)				
		STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	STRONG	MODERATE	WEAK	NONE	
ELEMENTS	FORM				X				X		X			
	LINE				X				X		X			
	COLOR				X				X		X	X		
	TEXTURE				X				X			X		

SECTION D. (Continued)

Comments from item 2

Does Project Design Meet Visual Resource Management Objectives? Yes

The Stovepipe Wells Village and AT&T Tower are very visible and provide a moderate to strong degree of contrast from this KOP. There is strong color contrast with the AT&T Tower against the mountains in the background. The proposed cell tower would not significantly change the color contrast but would extend the vertical lines above the existing AT&T tower resulting in a moderate change in visual contrast.

Additional Mitigating Measures (See item 3)

None.
