



FINDING OF NO SIGNIFICANT IMPACT

CONSTRUCT WIRELESS TELECOMMUNICATION FACILITY ATOP PARK RIDGE IN KINGS CANYON NATIONAL PARK SEQUOIA AND KINGS CANYON NATIONAL PARKS, CALIFORNIA August 2009

PURPOSE AND NEED FOR FEDERAL ACTION

Verizon Wireless has requested a right-of-way permit for the construction of a wireless telecommunications tower and support structures atop Park Ridge within Kings Canyon National Park, Tulare County, California. The National Park Service (NPS) is required by the Telecommunications Act of 1996 to consider all applications for the installation of cellular equipment on NPS administered lands.

The issuance of the right-of-way permit would serve the purpose of ensuring the wireless telecommunications tower and support structures in a manner compliant with federal laws, NPS and park mission, purpose, policies and regulations, and current operations at the proposed location.

The project will provide wireless communication and wireless internet coverage along a portion of the Generals Highway and along State Highway 180 in the vicinity of Grant Grove. The tower will also provide coverage to Grant Grove Village and the community of Wilsonia in Kings Canyon National Park, and to some remote areas within the parks and the surrounding Sequoia National Forest.

The need for the proposed action is to address the application by Verizon Wireless for a right-of-way permit, in compliance with the Telecommunications Act of 1996 and NPS Director's Order 53. A communications tower is needed to remedy a deficit in wireless telecommunications and wireless internet service along the Highway 180 corridor within the parks, or along the Generals Highway, or elsewhere in the parks and the surrounding national forest.

SELECTED ALTERNATIVE

The NPS's selected alternative - issue a right-of-way permit to Verizon Wireless for a wireless telecommunications tower and support structures atop Park Ridge within Kings Canyon National Park - is Alternative 2 (the agency-preferred alternative presented in the environmental assessment/assessment of effect (EA/AoE). No changes due to public review are incorporated herein. The selected alternative will ensure installation of the telecommunications tower and appurtenant facilities in a manner that does not conflict with federal laws, NPS and park mission, purpose, policies and regulations, and current operations at the proposed location.

Facility equipment will include an 80-foot-tall monopole tower with panel antennas and microwave dishes. Ground radio equipment and associated air conditioning units will be stored

in a prefabricated shelter. An emergency backup generator, powered by propane fuel, will be located in an enclosure next to the shelter. Power to the facility will be upgraded to accommodate Verizon wireless 200-amp single phase power requirements. The power upgrade will require replacing an existing electric transformer with an appropriately designed transformer.

The project will impact approximately 1,308 square feet of previously undisturbed land. The land surface will be leveled and/or covered with a matting foundation. The disturbance will remove manzanita and chinquapin shrubs. A staging area of approximately 10 feet by 10 feet will be established in coordination with the parks. All materials and equipment will be used and stored solely within the tower construction area and the established staging area during construction of the tower. The staging area will not be used for materials or equipment storage after construction was complete. An access road is already in place to service the fire lookout tower and other telecommunications facilities that currently exist at Park Ridge. It is estimated that construction will take approximately two months.

Current structures on Park Ridge include: two concrete block structures containing NPS and U.S. Forest Service (USFS) communications equipment with power generators; a 20-foot fire lookout tower; two 40-foot lattice towers with NPS and USFS telecommunications equipment; and a 30-foot tower on the NPS communications building supporting a passive reflector used for landline service operated by Verizon California.

OTHER ALTERNATIVES CONSIDERED

Alternative 1, the no action alternative, would be the continuation of existing conditions for Park Ridge and for wireless communications services in the parks and surrounding areas. The NPS would not issue a right-of-way permit to Verizon Wireless to construct a wireless telecommunications tower and associated facilities.

The existing Very High Frequency (VHF) park radio system would continue to provide wireless communication for park staff throughout Sequoia and Kings Canyon National Parks. Reliable telephone service throughout the parks would be limited to existing telephone lines.

Without the issuance of a right-of-way permit, Verizon Wireless would not provide cellular telephone service and wireless internet service within the parks and the surrounding areas. There would be no remedy for the existing deficit in wireless telecommunications along the Highway 180 corridor, within the parks, along the Generals Highway, or elsewhere in the parks and the surrounding national forest. Therefore, alternative 1 is not the selected alternative.

ALTERNATIVES CONSIDERED AND REJECTED

The NPS considered several alternatives for this project and conducted a detailed evaluation to determine the most feasible alternatives. The following alternatives were considered, but rejected, and the justification for their rejection is provided below.

The alternative of locating a Verizon Wireless facility on a parcel of private land outside of the parks' boundaries, along the Highway 180 corridor near Sequoia Lake, was considered. That property is situated approximately 1,500 feet lower than Park Ridge and is too far west of the required transmission area, and would not provide a suitable transmission range. Because it would not adequately fulfill the purpose and meet the needs of the proposed action, that alternative was dismissed from further consideration.

A parcel of private land near Hume Lake was considered as an alternative. That property is situated approximately 1,250 feet lower than Park Ridge and is too far east of the required transmission area, and would not provide a suitable transmission range. Because it would not adequately fulfill the purpose and meet the needs of the proposed action, that alternative was dismissed from further consideration.

A site atop Big Baldy Ridge at an elevation of approximately 8,200 feet was considered as an alternative. Big Baldy is approximately 5 miles southeast of Grant Grove. Verizon Wireless advised that transmissions from the Big Baldy site would not cover Grant Grove Village and other areas in its vicinity. Because it would not adequately fulfill the purpose and meet the needs of the proposed action, that alternative was dismissed from further consideration.

The possibility of co-locating a transmission tower on an existing water tank was considered as an alternative. The existing water tank is located approximately 1.25 miles to the northwest of the proposed facility, approximately 0.5 mile west of the Grant Grove Visitor Center. That location is approximately 500 feet lower than Park Ridge, and would provide roughly one third of the coverage. That would not provide a suitable transmission range. Because it would not adequately fulfill the purpose and meet the needs of the proposed action, that alternative was dismissed from further consideration.

The alternative of situating a Verizon Wireless transmission tower on another location atop Park Ridge was considered. That location is west of the site of the preferred alternative and of the existing structures there. Access to that location would require building a 50 foot-long access road across previously undisturbed land. Removal of a number of trees from the site would also be necessary, and the terrain of that location would require more excavation of soil and rock than at the site of the preferred alternative. Because of its greater adverse impacts to park resources, that alternative was dismissed from further consideration.

The alternative of constructing a 60-foot or a 70-foot-tall Verizon Wireless tower instead of an 80-foot-tall tower was considered. However, transmissions to and from a tower of either of those heights would be obstructed by surrounding trees. Removing trees to accommodate a 60 or 70-foot tower, combined with the same disturbances that would occur with construction of a taller tower, would increase the adverse impacts on wildlife habitat and native vegetation. Tree removal would also adversely impact scenic resources by eliminating trees that help screen existing structures on Park Ridge from view. Because of its greater adverse impacts to park resources, that alternative was dismissed from further consideration.

The alternative of constructing a 100 foot-tall or a 120 foot-tall Verizon Wireless tower instead of an 80-foot-tall tower was considered. However, the additional areas that would be covered by a 100 foot or 120 foot-tall tower would be primarily remote back-country territory seldom visited by wireless communication users. The increased visibility of a taller tower would have a greater adverse impact on the parks' scenic resources. The increased service area provided by a 100 foot or 120 foot-tall tower would benefit few wireless communications users, while creating a greater adverse impact on park resources. Because of its greater adverse impacts to park resources, that alternative was dismissed from further consideration.

RATIONALE FOR SELECTED ALTERNATIVE

Issuance of a right-of-way permit to Verizon Wireless will ensure the installation of a telecommunications tower and support facilities in a manner that does not conflict with federal laws, NPS and park mission, purpose, policies, and regulations, and current operations at the proposed location. It will meet the need for wireless telecommunications along the Highway 180 corridor, within the parks, along the Generals Highway, or elsewhere in the parks and the surrounding national forest.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

In accordance with DO-12, the NPS is required to identify the "environmentally preferred alternative" in all environmental documents, including EAs. The environmentally preferred alternative is determined by applying the criteria suggested in NEPA, which is guided by the Council on Environmental Quality (CEQ). The CEQ 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 esthetically and culturally pleasing surroundings
3. attaining the widest range of beneficial uses of the environment without degradation, risk of 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 provide visitors, employees, travelers and residents in surrounding areas with cellular telephone and wireless internet accessibility, thereby increasing their safety and sense of personal security. This may or may not improve their recreational experience, depending on their expectations and

personal beliefs about the use of cell phones in national parks (criteria 2, 3, and 5 are not met as well as under the preferred alternative)

The environmentally preferred alternative is the selected alternative, because it protects public and employee health, safety, and welfare by providing reliable wireless communications services for park visitors and employees, public health and safety officers, emergency response teams, and residents and travelers in the surrounding area (criteria 2, 3, and 5).

MITIGATION

Mitigation measures have been incorporated into the selected alternative (preferred alternative) to reduce impacts. Mitigation measures include clearly defining construction zones; avoiding introduction of non-native species; best management practices to minimize erosion, sedimentation, noise, and dust emissions; blending cut areas into natural environment; and minimizing new disturbance.

Table 1. Mitigation Measures.

Resource Area	Mitigation	Responsibility
General Considerations	The NPS project manager is responsible for ensuring that the project remains within the construction limits and parameters established in the compliance documents and that mitigation measures are properly implemented.	NPS Project Manager or Inspector; Verizon Wireless/Contractor
	Construction zones outside of the existing disturbed area will be identified and fenced with construction tape or some similar material prior to any construction activity. The fencing will define the construction limits and confine activity to the minimum area required for construction.	
	All protection measures will be clearly stated in the construction specifications/special construction requirements, and workers will be instructed to avoid conducting activities beyond the construction limits as defined by the construction fencing or similar material. This could include necessary temporary structures such as erosion control fencing.	
	All tools, equipment, barricades, signs, surplus materials, and rubbish will be removed from NPS property upon project completion. Any road and off-road surfaces damaged due to work on the project will be repaired to original condition as much as is feasible. All demolition debris will be removed from the project site, including all visible concrete and metal pieces.	
	Contractors will be required to properly maintain construction equipment (i.e., mufflers) to minimize noise from use of the equipment.	
	Noise from generators will be at the lowest decibels technically possible.	
	A hazardous spill plan will be in place, stating what actions will be taken in the case of a spill, notification measures, and preventive measures to be implemented, such as the placement of refueling facilities, storage, and handling of hazardous materials, etc.	
	All equipment on the project will be maintained in a clean and well-functioning state to avoid or minimize contamination from automotive	

Resource Area	Mitigation	Responsibility
	<p>fluids. All equipment will be checked daily.</p> <p>Best management practices for drainage and sediment control, as identified in the contractor's Stormwater Pollution Prevention Plan, will be implemented to prevent or reduce nonpoint source pollution and minimize soil loss and sedimentation in drainage areas.</p> <p>Use of Best Management Practices in the project area for drainage area protection will include all or some of the following actions, depending on site-specific requirements:</p> <ul style="list-style-type: none"> -keeping disturbed areas as small as practical to minimize exposed soil and the potential for erosion; -locating waste and excess excavated materials outside of drainages to avoid sedimentation; -installing silt fences, temporary earthen berms, temporary water bars, sediment traps, stone check dams, or other equivalent measures (including installing erosion-control measures around the perimeter of stockpiled fill material) prior to construction; -conducting regular site inspections during the construction period to ensure that erosion-control measures were properly installed and are functioning effectively; and -storing, using, and disposing of chemicals, fuels, and other toxic materials in a proper manner 	
Vegetation	<p>Before construction begins, a qualified plant ecologist will survey the project site to look for non-native species of concern which could be in the area. If any of these species are found, mitigation measures to reduce or eliminate impacts by these plants will be implemented under direction of the parks' restoration and alien plant ecologist.</p> <p>Approved staging areas will be surveyed for invasive non-native plants.</p> <p>A revegetation plan approved by NPS will be developed for disturbances outside of the footprint of the tower and its facilities.</p> <p>Ground surface treatment will include grading to natural contours if necessary, replacing topsoil, and, where necessary, seeding, and planting.</p> <p>Reclaimed areas will be monitored after construction to determine if reclamation efforts are successful or if additional remedial actions are necessary, as outlined in the revegetation plan developed by the NPS.</p> <p>Remedial actions will include installation of erosion-control structures, reseeded, topsoil placement, and/or replanting the area, and controlling non-native plant species with herbicide.</p> <p>In an effort to avoid introduction of non-native/noxious plant species, no hay bales will be used during revegetation or for temporary erosion control.</p> <p>When trenching for utilities, the operator will make every effort to detect the presence of tree roots prior to damaging them.</p> <p>When a root is detected, it will be hand excavated 2 feet around it to reveal its full extent prior to resuming excavation with equipment.</p>	NPS Project Manager and Vegetation Specialist; Verizon Wireless/Contractor

Resource Area	Mitigation	Responsibility
	<p>All live roots 6 inches diameter or larger in the entire excavated area shall be retained and remain undamaged. Roots that are to be retained shall be covered with wet burlaps until the excavation is backfilled. Roots between 2 inches and 6 inches diameter shall be given a clean straight cut on the exposed end with a saw prior to backfilling.</p> <p>Best Management Practices will include:</p> <ul style="list-style-type: none"> -Minimize soil disturbance. -Pressure wash and/or steam clean all construction equipment to ensure that all equipment, machinery, rocks, gravel, or other materials are cleaned and weed free before entering the parks. Construction equipment will be inspected by NPS staff prior to entering the parks to ensure compliance with cleanliness requirements and inadequately cleaned equipment will be rejected -Limit vehicle parking to existing roadways, access routes, or the designated staging area. -Limit disturbance - no machinery or equipment should access areas outside the construction limits, which will also include the tower construction area, staging area, and existing roadways or access routes. -The contractor will submit to the park project leader a list of proposed sources for import materials 30 calendar days in advance of importing material. The list shall also include the end use and any temporary storage requirements of those materials. -Natural Resources staff will inspect sources of materials that pose a risk, either by their end use or storage requirements, of allowing invasive non-native plants (also known as noxious weeds) to establish in the park. Supplier will certify the material doesn't contain non-native plants. -Contaminated materials that contain fines and have an end-use on the surface, and cannot otherwise be mitigated, will require sterilization before importing to the park. -Import material shall be shipped directly from the source to the parks without intermediary storage or staging. -Sources of rock, sand, gravel, earth, soil, or other imported natural material will be inspected for invasive non-native plants prior to acceptance. -Shipping vessels will be covered to prevent spillage or blowing of their contents while in transit. -Materials will also be transported and stored such that they will not acquire invasive non-native plant seeds from adjacent vegetation. -Construction materials will be inspected for soil and plant parts. Dirty materials will be cleaned with pressure washing or other means. Construction materials that could acquire seeds from surrounding areas will be covered. -Initiate revegetation of disturbed sites immediately following construction activities. -Monitor disturbed areas for up to three years following construction to identify growth of noxious weeds or non-native vegetation. Treatment of non-native vegetation will be completed in accordance with NPS-13, Integrated Pest Management Guidelines. <p>To maximize vegetation restoration efforts after completion of construction activities, the following measures will be implemented:</p> <ul style="list-style-type: none"> -Litter and duff will be removed from project areas and stored for later replacement over topsoil. -Topsoil will be removed from areas of construction, stored, and 	

Resource Area	Mitigation	Responsibility
	<p>replaced at the end of the project. The topsoil will be spread in as near the original location as possible.</p> <p>-Native vegetation removed during construction will be replanted wherever it is feasible.</p>	
Wildlife	<p>The clearing limits (construction limits) will be clearly marked or flagged prior to construction to limit disturbance to wildlife habitat.</p> <p>Construction activities will be restricted to daylight hours.</p> <p>Feeding or approaching wildlife is prohibited.</p> <p>Any wildlife collisions will be reported to park personnel.</p> <p>A litter control program will be implemented during construction to eliminate the accumulation of trash. All food will be stored in bear-proof containers except when it is being consumed. Food stored in vehicles will be in bear proof containers. Spilled food will be cleaned up immediately.</p> <p>Park biologist or ranger will be notified if bears loiter in area or if fisher sightings occur.</p>	NPS Project Manager; Verizon Wireless/Contractor
Air Quality	<p>Dust control will occur as needed on active work areas where soil or fine particles are exposed.</p> <p>The contractor will not leave vehicles idling for more than five minutes when parked or not in use.</p> <p>Concrete plants will be located outside Sequoia and Kings Canyon National Parks. Small quantities of concrete may be stored for a short term only at the designated staging areas.</p> <p>Construction debris will be hauled to an appropriate disposal location outside the park.</p>	NPS Project Manager; Verizon Wireless/Contractor
Water Quality	<p>At all cut and fill areas, erosion and sedimentation control, such as silt fencing, will be implemented to minimize impacts to water quality.</p> <p>Surface restoration and revegetation of disturbed soils will be implemented to minimize long term soil erosion.</p> <p>Water needed for construction and dust control will come from outside the parks and will not be diverted from surface waters.</p>	NPS Project Manager or Inspector; Verizon Wireless/Contractor
Soils/Geologic Resources	<p>Blasting will be allowed only with NPS approval with an approved blasting plan will be approved by the park and strictly enforced</p> <p>Erosion and sediment control will be required (see "General Measures").</p> <p>Topsoil will be removed from areas of construction and stored for later reclamation use. The topsoil will be redistributed as near the original location as possible and supplemented with scarification, mulching, seeding, and/or planting with species native to the immediate area.</p>	NPS Project Manager or Inspector; Verizon Wireless/Contractor
Visitor Experience	<p>Visitors will be notified when construction will occur and information will be posted in neighboring communities, on the park website, and at visitor centers.</p> <p>So as to protect viewshed, no large trees will be removed from the</p>	<p>NPS Public Information Officer</p> <p>NPS Project</p>

Resource Area	Mitigation	Responsibility
	project site; surrounding trees are retained to provide screening. The paint scheme for the tower and appurtenant facilities will be designed to reduce visibility.	Manager or Inspector
Cultural Resources	<p>Should unknown archeological resources be uncovered during construction, work will be halted in the discovery area, the site secured, and the appropriate Sequoia and Kings Canyon National Parks staff will consult with the California State Historic Preservation Officer (CA SHPO) and affiliated tribes, if necessary, according to 36 CFR 800.13 and, as appropriate, provisions of the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA).</p> <p>In compliance with the NAGPRA, the NPS will also notify and consult concerned American Indian tribal representatives for the proper treatment of human remains, funerary, and sacred objects should these be discovered during the project.</p> <p>Archeological specimens found within the construction area will be removed only by the NPS or their designated representatives.</p> <p>Contractor-selected, noncommercial areas outside of the project limits, including but not limited to material sources, disposal sites, waste areas, haul roads, and staging areas, will not encroach upon sites listed or eligible for listing in the NRHP. Written proof satisfactory to the NPS and the CA SHPO shall document, for compliance with Section 106, that no historic properties will be affected because: -there are no historic resources present or -there is no effect to historic properties present.</p>	NPS Project Manager and Archeologist
Health and Safety	Visitors and NPS staff (other than project participants) will not be allowed to access the construction site. Emergency vehicles will be allowed on site if needed.	NPS Project Manager

WHY THE SELECTED ALTERNATIVE (PREFERRED ALTERNATIVE) WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

As defined in 40 CFR §1508.27, significance is determined by examining the following criteria:

Impacts that may have both beneficial and adverse aspects and which on balance may be beneficial, but that may still have significant adverse impacts which require analysis in an EIS: No major adverse or beneficial impacts were identified that would require analysis in an environmental impact statement.

The selected alternative (preferred alternative) will have no impacts or negligible impacts on air quality, water quality, night sky experience, prime and unique farmland, environmental justice, socioeconomics/gateway communities, historic structures, archeological resources, ethnographic resources, museum objects, Indian trust resources, special status species, wetlands, floodplains, park operations, and cultural landscapes.

Construction activities will have short-term negative to minor adverse impacts on visitor experience, scenic resources, health and safety, and soundscapes during construction. However, faster access to law enforcement and emergency response personnel will have a long-term

beneficial impact on health and safety. That improved access will also have a long-term beneficial impact on the visitor experience, by providing an increased sense of security. The potential for exposure to low level radiofrequency electromagnetic fields will have a long-term negligible adverse impact on the health and safety of park staff and visitors. Short-term and long-term adverse impacts on wildlife will be minor. Long-term adverse impacts on soils and geologic resources, wilderness, vegetation, visitor experience, and scenic resources will be minor.

In accordance with Section 106 of the National Historic Preservation Act, the NPS has concluded that there will be no historic properties affected by the implementation of the preferred alternative. Surveys of the site have been conducted by park staff, and no archeological resources, historic or prehistoric structures, or ethnographic resources have been observed there.

Degree of effect on public health or safety: The selected alternative will have long-term beneficial impacts on health and safety. Cellular telephone service within the parks and surrounding areas will increase capabilities for rapid contact with emergency response and law enforcement personnel.

The selected alternative will have minor, short-term, adverse impacts on health and safety as a result of construction activity. Heavy equipment will operate in and around the proposed project area during construction, creating hazards from overhead activities, the possibility of collisions, and other construction-related hazards from the movement of people and equipment in and around the construction zone. Those adverse impacts will last as long as construction occurs.

The selected alternative will have a negligible, long-term, adverse impact on the exposure of visitors or park staff to radiofrequency electromagnetic fields (RF). The proposed wireless transmission tower will have three directional transmission antennae, each approximately 8 feet tall, atop a single central 80-foot tall pole (monopole). Each antenna will transmit with an effective radiated power of up to 550 watts within a bandwidth of approximately 806 to 960 MHz. Two microwave dishes, each 6 feet in diameter, will be installed on the monopole at a height of 67 feet above ground.

Persons with the greatest potential exposure to RF emissions will be personnel in the fire lookout tower on Park Ridge. The maximum potential RF exposure for personnel in the fire lookout tower (approximately 20 feet above ground level) will be less than 2.9 microwatts per square centimeter, which is less than one half of one percent of the public safety standard set by the U.S. Federal Communications Commission (FCC). The potential exposure levels from the transmission tower on Park Ridge will be 10,000 times lower than a level that would pose a health risk to humans.

The two microwave dishes will not contribute to any additional exposure to visitors or park staff. Transmission energy from the dishes will be confined to a fairly tight beam emitted at the elevation of the dishes, and parallel to the ground. With the dishes mounted at 67 feet above ground, the transmission beams will be at least 30 feet above anyone in the tower, and will not affect anyone at ground level.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas: The tower will be constructed on park lands atop Park Ridge, near Grant Grove. There are no historic structures or cultural landscape features identified in the project area. There are no prime and unique farmlands in the project area. Wild and scenic rivers will not be affected, as there are no sources of surface water on Park Ridge. Some comments received asked about applicability of Wilderness Act requirements to the proposal (it does not). Congressionally designated Wilderness is nearby, but there are no direct or indirect effects on wilderness resources, though some use of cell phones in remote areas may be facilitated. Wetlands will not be affected, and there are no ecologically critical areas in the area of potential effect.

Degree to which effects on the quality of the human environment are likely to be highly controversial; Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration; Whether the action threatens to violate laws or requirements imposed to protect the environment: There were no highly controversial effects identified during public scoping or preparation of the EA/AoE, nor during the public review period. The selected alternative neither establishes any precedent for future NPS actions having potential for significant effects nor represents a decision in principle about a future consideration. All federal, state, and local laws and environmental requirements will be complied with.

Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks: There were no highly uncertain or unknown risks identified during public scoping, preparation of the EA/AoE, or the public review period. The unique risk of human exposure to radiofrequency electromagnetic fields (RF) was analyzed in the EA/AoE, and adverse impacts were determined to be negligible. The potential RF exposure levels from the directional transmission antennae on the tower will be 10,000 times lower than a level that would pose a health risk to humans. The two microwave dishes that will be installed on the tower will not contribute to any exposure to visitors or park staff.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts: Impacts on vegetation, visitor experience, scenic resources, and health and safety were analyzed for the selected alternative (preferred alternative) of the EA/AoE. Cumulative impacts were determined by combining the impacts of the alternatives with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects at Sequoia and Kings Canyon National Parks and, if applicable, the surrounding region.

The following projects were considered in the cumulative impact analysis:

Past and Current Actions

- **Buck Rock Lookout.** A small fire lookout building and associated radio transmittal towers sit atop Buck Rock at an elevation of approximately 8,500 feet. The lookout is approximately 5 miles east of Grant Grove.

- **Big Baldy Television Relay Tower.** A television transmission relay tower is situated near the summit of Big Baldy, at an elevation of approximately 8,200 feet. Big Baldy is approximately 5 miles southeast of Grant Grove.
- **Eshom Point Radio Tower.** A radio transmission tower and a service structure are situated near the summit of Eshom Point, at an elevation of approximately 5,100 feet. Eshom Point is approximately 6 miles south of Grant Grove.
- **Delilah Lookout.** A fire lookout tower is situated atop a ridge at an elevation of approximately 5,100 feet. The tower is approximately 10 miles northwest of Grant Grove.
- **Generals Highway Cut Slope Repair Route 10(7A).** The project removed unstable rock and stabilized the remaining portions of the cut slope above the roadway at mile 0.8 as measured from the southwest park boundary. Stabilization was accomplished by excavating and removing additional soil and rock so that the finished slope was less than the destabilized slope. The project was completed in 2006.
- **Generals Highway Halstead Meadow Erosion Repair.** The project stabilized a failing section of Generals Highway from hydrologic action caused from the outfall at two 36" metal culverts in the Red Fir sub-district, specifically Halstead Meadow, of Sequoia National Park. Approximately 400 cubic yards of rock and earthen fill were placed in a 25' deep chasm formed from the culverts discharge. During the project the creek flow was diverted to existing culverts approximately 100-feet north of the chasm.
- **Giant Forest Development Area Removal.** A 1980 Development Concept Plan (NPS 1980) and the 1996 Interim Management Plan (NPS 1996) called for removing concession and NPS facilities from the Giant Forest and relocating them to Wuksachi. During 1998–99 hundreds of structures in two historic districts were removed in accordance with an agreement with the CA SHPO. The project has also included removal of hundreds of concession lodging buildings, roads, and 18 parking lots. Historic buildings that are being adaptively reused include the market, which is now the Giant Forest Museum (opened in 2002) and the Beetle Rock Assembly Hall, which is being reused as a community building and education center. Other historic buildings (ranger residence and restrooms) have been rehabilitated. Museum exhibits, waysides, and trail centers have been built. Area trails are being improved and comfort stations replaced. Replacement parking is located outside the Giant Forest, and visitation to the area would depend on a shuttle system to be developed over the next several years. Utility system replacements have occurred in Giant Forest to bring aging systems up to state standards.
- **Construction of the Wuksachi, Clover Creek, and Red Fir Development Areas.** Facilities were constructed in the 1980s and 1990s in a red fir forest to replace those removed from Giant Forest, based on the 1980 Development Concept Plan (NPS 1980). Recent NPS facilities include the Red Fir maintenance building, wastewater treatment plant, seasonal housing, bathhouse for concession use, road system, utilities, permanent staff housing, parking lots, propane fuel area / distribution system, and a firehouse. Concession facilities already built include three lodges with 102 rooms, a restaurant/store/administration building, a bathhouse, and staff cabins. Concession contracts call for 312 additional lodging units plus employee housing.
- **Reconstruction of the Crescent Meadow / Moro Rock Road.** This repaving project was recently completed.

- **Lodgepole and Grant Grove - Replace Water Distribution Systems.** The 2008 project consists of reconstructing major components of the water distribution systems in the Grant Grove and Lodgepole areas of the parks, which involves all work associated with removal and replacement of approximately 33,100 linear feet of water line ranging in size from ¾" to 10" in diameter. Work includes excavation, demolition and disposal of old piping and valves, installation of new piping, valves and appurtenances, backfill and compaction, and revegetation of areas disturbed by construction activities.
- **Generals Highway Rehabilitate Route 10(1 – 6).** The reconstruction of the historic Generals Highway has been going on since the 1980s, starting near Three Rivers. This project is being phased over many years. Work has been completed from Ash Mountain to Big Fern Springs. The section from Big Fern Springs to Amphitheater Point was recently completed in 2007. The section from Deer Ridge to Wolverton Road would be reconstructed as soon as funds become available.
- **Rehabilitation of the Lodgepole Campground.** Campgrounds are being gradually renovated throughout the parks. At Lodgepole campsites are being renovated in phases. Sites within the 100-year floodplain are being relocated out of the floodplain, and an internal circulation system is likely to be redesigned.
- **Existing Structures on Park Ridge.** Park Ridge is a designated telecommunications site for Sequoia and Kings Canyon National Parks. Current structures on Park Ridge include:
 - 20 foot tall fire lookout tower
 - 10 foot by 10 foot concrete block structure containing NPS communications equipment and a back-up power generator
 - 30 foot tall tower atop the NPS communications equipment building, containing a Verizon California passive reflector used for landline service
 - 40 foot tall lattice tower with NPS telecommunications transmission equipment
 - 8 foot by 8 foot concrete block structure belonging to the USFS, containing USFS radio equipment and a back-up power generator
 - 40 foot tall lattice tower with USFS radio transmission equipment

Future Actions

- **Verizon Tower at Dunlap.** Verizon Wireless is considering the future construction of a communication tower near the community of Dunlap, approximately 4 miles west of Grant Grove. An exact location and design have not been selected, but such a tower would be situated near the Highway 180 corridor, to serve the greatest number of users. The design of such a tower would be similar to that proposed for construction atop Park Ridge.
- **Rehabilitate 10.7 km of Generals Highway.** Rehabilitate 10.7 km of the historic Generals Highway between Deer Ridge Pullout and Wolverton Road intersection. Work would entail replacing guardrails, retaining walls, cut walls, drainage structures, base material, and asphalt. The existing grade and alignment would be retained as much as possible. Existing signing and interpretive waysides would be upgraded and replaced as necessary. Revegetation would occur where disturbed areas were adjacent to the road. This project would most likely be phased over several years with an unknown start year.
- **Replace Cedar Grove Bridge in the Cedar Grove District of Kings Canyon National Park.** This bridge leads from Kings Canyon Highway (180) to the Cedar Grove Village. The bridge is a two span 142' x 27' steel stringer structure with a laminated timber deck.

The substructure consists of reinforced concrete walls on spread footings. This structure is in poor condition and must be replaced due to the deficient condition, volume of traffic, and reduced load capacity. The original design of the bridge had a Normal Traffic Rating of 15 tons; however due to degradation, a limit of 9 tons has been assigned. The railing does not meet safety and design standards. The estimated remaining life was determined to be 7 years in 1989.

- **Replace Wolverton Corrals.** The project would develop a plan to offer pack station facilities in the Wolverton area. The pack station would serve the needs of stock animals used by the NPS for trail maintenance, a concession packer, as well as private pack stock users.
- **Replace Big Stump Entrance Station.** A new entrance station would be constructed to serve the Kings Canyon entry point into Sequoia/Kings Canyon National Parks and Giant Sequoia National Monument. The proposed facility would replace an antiquated station with numerous safety issues and minimal visitor services. It would feature kiosks, bulk storage space, administrative fee collection space, employee restroom, and emergency generator room. The site footprint would accommodate present and projected traffic volume with a three lane entry way and two lane exit way for traffic flow.
- **Restoration of Big Meadow.** A watershed improvement project on the Hume Lake District of Sequoia National Forest would restore 6,100 ft of degraded stream.

The negligible to minor adverse impacts of the selected alternative (preferred alternative), combined with impacts of past, present, and reasonably foreseeable actions, could result in negligible to moderate adverse cumulative impacts on vegetation, visitor experience, scenic resources, and health and safety.

Impacts of the selected alternative, when combined with other past, present, and foreseeable future impacts, could result in long-term beneficial impacts on health and safety and on visitor experience. As described in the EA, the cumulative effects of past, present, and future actions in the area, combined with the impacts of the selected action, are not anticipated to produce any significant adverse cumulative effects.

Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources: There will be no impacts on scientific, cultural or historical resources. Some comments received asked whether the Park Ridge Fire Lookout was a historic structure (it is not). The CA SHPO concurred with NPS's determination of no adverse effects to cultural resources in an August 13, 2009 letter to the Parks.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat: No impacts to Special Status Species are anticipated. Park staff have reviewed the most current list of Federally and State Listed Endangered and Threatened Animals and Plants of California from the state online database, and have concluded that no Special Status Species animals will be impacted in the proposed project area. In the Park Ridge area there is no habitat suitable for the federal or state listed or candidate fish or amphibian species. The California condor (*Gymnogyps californianus*) is a federally listed species that uses open ridges and has been observed in the area in the past. There are four records of sightings from

Park Ridge from 1961 to 1971. Currently condors do not occur in the area, but it is possible that they could return, as condor restoration efforts progress. Historically, condors have roosted on Blue Ridge, in the Sequoia National Forest south of Park Ridge. An unused fire lookout tower and radio towers are situated atop Blue Ridge.

A federal candidate species, the Pacific fisher (*Martes pennanti*) has been observed in the general area, but fishers are shy solitary animals, that typically avoid large open areas. The open ridge top area proposed for construction of the Verizon Wireless tower is intermittently visited by staff maintaining the existing structures there. The open disturbed area, with occasional human presence, currently provides only marginal habitat for fishers.

The California state species of concern include the black swift, peregrine falcon, Swainson's hawk, great gray owl, and California spotted owl. The area does not provide suitable nesting habitat for the black swift or peregrine falcon, though they may occasionally fly over the area. Swainson's hawk is a rare visitor to the area. Great gray owls inhabit mature conifer forests adjacent to open wet meadows, and require areas with large trees and a dense covering canopy. California spotted owls also require mature forests with a closed canopy of mature trees. The project site does not provide suitable habitat for these latter species.

Another state species of concern, the wolverine, could occur in the area. It likes open country, but it is rare and has such a large home range that activities on Park Ridge will not have an impact on the species viability. Reports of wolverines occasionally come from much more remote locations along the crest of the Sierra Nevada, but not near Park Ridge.

A plant survey of the proposed project area was completed by park staff in May 2008. No plants of Special Status Species were identified at that time.

IMPAIRMENT OF PARK RESOURCES OR VALUES

In addition to reviewing the list of significance criteria, Sequoia and Kings Canyon National Parks determined that implementation of the selected alternative (preferred alternative) will not constitute an impairment of park resources and values. This conclusion is based on a thorough analysis of the impacts described in the EA/AoE, the agency and public comments received, and the professional judgment of the decision-maker in accordance with the *NPS Management Policies, 2006*. Based on the analysis in the EA/AoE, implementing the selected alternative will not result in major adverse impacts on a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Sequoia and Kings Canyon National Parks; (2) key to the natural or cultural integrity of the Parks; or (3) identified as a goal in the parks' *General Management Plan* or other relevant NPS plans.

UNACCEPTABLE IMPACTS

The impact threshold at which impairment occurs is not always readily apparent. Therefore, the NPS applies a standard that offers greater assurance that impairment will not occur, by avoiding impacts that are determined to be unacceptable. These are impacts that fall short of impairment, but are still not acceptable within a particular park's environment. The NPS has determined that

the selected alternative will not result in unacceptable impacts to Sequoia and Kings Canyon National Parks resources. This conclusion is based on a thorough analysis of the environmental impacts described in the EA/AoE, public comments received, relevant studies, and professional judgment of the decision-makers guided by direction in NPS *Management Policies 2006*.

PUBLIC INVOLVEMENT AND AGENCY CONSULTATION

Staff of Sequoia and Kings Canyon National Parks, Verizon Wireless, and resource professionals from the NPS Denver Service Center conducted internal scoping. This interdisciplinary process defined the purpose and need, identified potential actions to address the need, determined the likely issues and impact topics, and identified the relationship of the proposal to other planning efforts at the parks. A press release initiating public scoping and describing the proposal was issued on December 17, 2008. The press release and scoping letters were emailed or sent to more than 300 individuals, agencies, tribes, interest groups, and media outlets. Information about the opportunity to provide scoping comments was included on the National Parks Travelers website, and scoping information was provided at the Three Rivers Town Hall Meeting in January 2009.

Ten comments were received during the 30-day scoping period; nine from individuals and one from the Sierra Club. Of those, six opposed and four supported the proposed construction of a communication tower on Park Ridge. Opponents of the proposal had concerns about the potential effects to the scenic resources in the area, and effects to recreational use and wilderness. Commenters favoring the proposal indicated that there would be benefits derived from improving communications at Park Ridge, including improved safety and emergency services.

In accord with *Director's Order #53: Special Park Uses*, a Federal Register Notice was published in March 2009 to announce the proposal the availability of the EA/AoE. This announcement generated seven additional comment letters from individuals. Of these, one commenter supported the proposal, four commenters opposed the proposal, and two had no opinions but requested additional information.

On April 10, 2009 the Federal Aviation Administration provided their determination of no hazard to air navigation from the proposed installation (and that marking and lighting were not necessary for aviation safety). The approved undertakings described above are subject to §106, NHPA (16 USC 470 *et seq.*). Project scoping letters were sent to the CA SHPO, to the Advisory Council on Historic Preservation, and to 10 affiliated tribes on December 17, 2008. August 13, 2009 the CA SHPO concurred that a finding of No Historic Properties Affected is appropriate for this undertaking pursuant to 36 CFR Part 800.4 (d)(1) and that adequate documentation for this finding was provided pursuant to 36 CFR Part 800.11(d). Pursuant to §7(c) of the Endangered Species Act of 1973, as amended (16 USC 1531 *et seq.*), it is the responsibility of the federal agency proponent (in this case the NPS) to determine whether the proposal could adversely affect any listed species or designated critical habitat. After consulting internet sources and species experts, Parks' staff determined that no listed species nor critical habitats will be adversely affected.

The EA/AoE was made available for public review and comment from May 20 through June 22, 2009. Printed copies of the EA/AoE were distributed to more than 130 individuals, agencies, and organizations on the project mailing list, and to the CA SHPO and the affiliated tribes.

Approximately 200 individuals were notified of the availability of the EA/AoE by email or letter. An electronic copy of the EA/AoE was placed on the parks' Planning, Environment, and Public Comment (PEPC) Web site. Copies of the EA/AoE were also made available at the parks and at 12 area libraries, including: the Tulare County Library (Exeter and Lindsay branches), the Tulare County Law Library, and the Fresno County Library (Central, Sunnyside, Fowler, Kingsburg, Orange Cove, Parlier, Reedley, Sanger, and Selma branches). No public meetings were held regarding the project.

Information on the public review of the EA/AoE was published in the Mammoth Times newspaper on May 30. In addition, availability of the EA/AoE was announced at the June 8 Three Rivers Town Hall meeting. The National Park Service received 51 comment letters on the EA/AoE, including 47 from private citizens; one from a private business; and four from interest groups, including the Buck Rock Foundation, the Tehipite Chapter Sierra Club, Wild Wilderness, and the Wilsonia Historic District Trust. Ten commenters responded using one of three different form letters. The majority of commenters generally expressed either support or opposition to the construction of a telecommunications facility within the park and had no substantive comments. Some commenters had concerns related to the impacts to scenic resources, visitor experience, and area resources that were previously addressed in the EA/AoE.

Several commenters raised questions about the effects on wilderness and wilderness users, and the potential that the use of cell phones is prohibited under the Wilderness Act and contradicts NPS policies. Another commenter requested more information on the effects to historic resources, such as the Generals Highway and the Park Ridge Fire Lookout. Several commenters questioned whether additional telecommunications facilities were proposed elsewhere in the park. A commenter asked why other types of towers were not considered in the analysis, such as disguising the tower as a tree.

While the commenters did not provide any additional, new, or substantive information that would require revising the EA/AoE or that would change the determination of effects, several points were clarified and comments were addressed in errata to the EA/AoE. These clarifications relate to the Wilderness Act requirements and NPS policies, the status of other cell phone proposals in the park, the effects to the visitor experience from the use of cell phones, the historic status of the Park Ridge Fire Lookout, and the alternatives considered but dismissed in the EA/AoE.

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CONCLUSION

The NPS has selected alternative 2 for implementation. Based on the conservation planning and environmental impact analysis documented in the EA, with due consideration of the nature of the public comments and consultations with other agencies, and given the capability of the mitigation measures to avoid, reduce, or eliminate impacts, the NPS has determined that selected actions do not constitute a federal action that normally requires preparation of an environmental impact statement (EIS). The selected actions will not have a significant effect on the quality of the human environment or the park's cultural resources, or natural resources, and would not jeopardize the continued existence of threatened or endangered species. The impacts that will result from the selected alternative will not impair or cause unacceptable impacts to any park resources or values necessary to fulfill specific purposes identified in the park's enabling legislation.

There are no unmitigated adverse impacts on public safety, sites, or districts listed in, or eligible for listing in, the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, cumulative effects or elements of precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law. Based on the foregoing, it has been determined that the selected action may be implemented as soon as practicable.

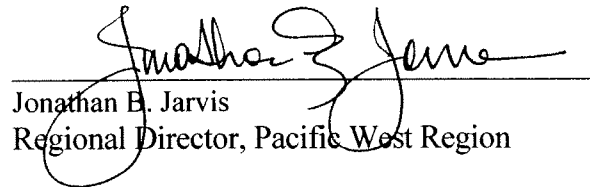
Recommended:



Craig C. Axtell
Superintendent Sequoia and Kings Canyon National Parks

20. Aug. 09
Date

Approved:



Jonathan E. Jarvis
Regional Director, Pacific West Region

August 26, 2009
Date