



Environmental Assessment and Assessment of Effect

Whiskey Creek Ranger Station Communication Link

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National Park Service

Whiskeytown National Recreation Area
California

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PURPOSE AND NEED

Introduction

Whiskeytown National Recreation Area (NRA) is a unit of the national park system in Shasta County, California, approximately 8 miles west of downtown Redding. The NRA encompasses approximately 42,500 acres (approximately 39,042 acres of land and approximately 3,458 acres of water). Elevations range from 800 feet (ft) on lower Clear Creek below Whiskeytown Dam in the southeastern corner of the NRA, to 6,199 ft atop Shasta Baldy in the southwest section of the NRA (figure 1). Vegetation generally includes mixed pine-oak woodlands and forests, riparian shrublands and woodlands, and Mediterranean and montane chaparral shrublands. Whiskeytown Lake was created by a 263 ft tall earth-filled dam constructed by the U.S. Bureau of Reclamation's Central Valley Water Project on Clear Creek in 1963. The lake has a catchment area of approximately 203 square miles, and is capable of storing approximately 241,100 acre-feet of water for irrigation, flood control, and electricity generation. Annual visitation to the NRA has ranged from approximately 850,000 to over 1.5 million, depending on local and regional climatic conditions. with hot, dry weather boosting visitation numbers.



Figure 1. Area Map

Purpose and Need

The purpose of the proposed action is to provide data services to the Whiskey Creek Ranger Station. This Station, located at 13651 Whiskey Creek Road (Figure 2), is a single story house that the National Park Service converted to offices when it acquired the property in 2009. One of two ranger offices in the park, the Whiskey Creek Ranger Station services the east side of the park. The office of the Park Ranger Field Supervisor is located here, as well as the conference room where many secure operational briefings are held. The building has basic telephone service, but due to the remote location of the property, there are no data services available. In order for Park Rangers to utilize secure intranet and internet services, as well as the park's Voice over IP (VOIP) phone system, this facility must be linked to a communication system capable of providing the bandwidth to handle these services. This action is needed as the existing communications infrastructure does not meet the requirements of the Park Ranger staff.

This environmental assessment will analyze the proposed action and no-action alternative and their potential impacts on the environment. It has been prepared in accordance with the National Environmental Policy Act of 1969, as amended (NEPA); the regulations of the Council on Environmental Quality (40 *Code of Federal Regulations* [CFR] 1508.9); National Park Service (NPS) Director's Order 12: *Conservation Planning, Environmental Impact Analysis, and Decision-making*; the National Historic Preservation Act of 1966, as amended (NHPA); and the Endangered Species Act of 1973, as amended. The assessment of effect analyzes potential effects to historic properties under section 106 of the NHPA.



Figure 2. Proposed Tower Sites

Scoping

A press release initiating scoping and describing the proposed action was issued on February 15, 2012 (Appendix A). A public meeting was held on February 29, 2012, at Redding City Hall. Approximately 60 people attended. Comments were solicited during a public scoping period that ended on March 30, 2012. See the “Consultation and Coordination” section of this environmental assessment for additional scoping information.

Issues and Impact Topics

Issues

Issues and concerns affecting this proposed action were identified from past National Park Service (NPS) planning efforts, and agency and public input from the scoping process. The important issues that were identified are potential impacts to air quality, soundscapes, NRA operations, visitor experience (including viewsheds), and health and safety. During public scoping, one respondent asked about the possibility of connecting to the internet service, and if the tower at Whiskey Creek could be repositioned to lessen any effects from the microwave. These comments are addressed in the description of the alternative (page 10 – Use/Operation of the facility) and the Health and Safety impact analysis (page 21), respectively.

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 proposed action would minimize impacts to natural resources and visitor use and experience, while protecting health and safety. 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 discussion and to allow comparison of the environmental consequences of each alternative. Selected 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 Included in this Document

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 Whiskeytown NRA. Impact topics that are carried forward for further analysis in this environmental assessment are listed below, along with the reasons why the impact topic is further analyzed as described in the “Affected Environment” chapter and potential impacts analyzed in the “Environmental Consequences” chapter.

Impact topics are dismissed from further evaluation in this environmental assessment (EA) if:

- they do not exist in the analysis area, or
- they would not be affected by the proposal, or the likelihood of impacts are not reasonably expected.

Due to there being no effect or negligible effects, there would either be no contribution towards cumulative effects or the contribution would be low. For each issue or topic presented below, if the resource is found in the analysis area or the issue is applicable to the proposal, then a limited analysis of direct and indirect, and cumulative effects is presented. There is no impairment analysis included in the limited evaluations for the dismissed topics because the NPS's threshold for considering whether there could be impairment is based on "major" effects.

Impact Topics Retained For Further Analysis

Air Quality

Construction activities such as hauling materials and operating heavy equipment could result in temporary increases of vehicle exhaust, emissions, and fugitive dust in the general project area. Overall, the project could result in a degradation of local air quality. Because there would likely be an increase in vehicle exhaust from construction equipment and temporary suspension of dust particles in the general vicinity of the construction, this topic has been carried forward for further analysis.

Soundscapes

During construction, human-caused sounds would likely increase due to construction activities, equipment, vehicular traffic, and construction crews. Because the construction will have potential impacts on the soundscapes due to the construction activities, this topic has been carried forward for further analysis.

National Recreation Area Operations

NRA operations that could be affected by the alternatives are law enforcement, emergency response, and maintenance. NRA operations could be affected by the no-action and action alternatives. Therefore, NRA operations are addressed in detail in this environmental assessment.

Viewsheds and Visitor Experience

Providing for visitor enjoyment is one of the primary purposes of the NPS, according to the 1916 Organic Act and NPS Management Policies (2006). Furthermore, the enabling legislation for the Whiskeytown National Recreation Area stipulates that management will promote or is compatible with, and does not significantly impair, public recreation, and conservation of scenic, scientific, historic, or other values contributing to public enjoyment. The proposed tower locations are located in administrative areas, though the structures may be visible from Highway 299 or Whiskeytown Lake. Therefore, this topic is considered for further evaluation.

Health and Safety

The NPS is concerned about the safety of visitors to its parks and will enhance visitor safety as long as proposed actions do not result in a derogation of NPS resources or conflict with the current or planned use of NPS property. The NPS Management Policies (2006) state, "While recognizing that there are limitations on its capability to totally eliminate all hazards, the NPS and its concessionaires, contractors, and cooperators will seek to provide a safe and healthful environment for visitors and employees" (sec. 8.2.5.1). Further, the NPS will strive to protect human life and provide for injury-free visits (sec. 8.2.5).

Reference Manual, Special Park Uses, Appendix 5, Exhibit 6, (RM-53) (2000) sets forth the procedures applicable to permitting wireless telecommunication facility sites in units of the National Park System. The manual directs the NPS to consider the safety of the visiting public as a factor when reviewing wireless telecommunication facility applications. Public safety, in this context, refers

to telephonic access to emergency law enforcement and public safety services, but may also apply to improving the efficiency of emergency operations in the park or exposure to radio frequency emissions. Health and safety will be addressed in detail in this EA to assess the impacts of new microwave communication towers.

Impact Topics Dismissed from Further Analysis

Topography, Geology, Soils

The proposed construction of the microwave tower at both the Whiskey Creek Ranger Station and Park Headquarters location are in areas that do not contain significant topographic or geologic features. The proposed locations for the towers are previously disturbed by past construction. Soil at these locations consists of fill dirt of unknown origin. All construction activities, including indirect ones such as staging, will occur on disturbed soils, therefore no further impacts are anticipated. As a result, this impact topic has been dismissed from further analysis in this document.

Historic Structures, Ethnographic Resources, Cultural Landscapes

The proposed location of the microwave towers are within administrative areas adjacent to existing park infrastructure. The towers will not be visible from the Tower House Historic District. The towers, due to the distance from Shasta Bally, will not be readily visible from any point on the mountain, and will therefore not impact the viewshed of any known Wintu traditional cultural sites. Additionally, the NPS consulted with the Redding Rancheria to ensure no other ethnographic resources would potentially be impacted by this project. Past cultural resources surveys indicate that no cultural resources were located in the vicinity of either of the proposed locations. As a result, the project would not result in any direct impacts to Historic Structures, Ethnographic Resources or Cultural Landscapes, so this topic has been dismissed from further analysis in this document.

Archeological Resources

No archeological resources were found in the vicinity of the project area. Both tower locations are in previously disturbed areas. The proposed project would not result in any impacts. As a result, this topic has been dismissed from further analysis in this document.

Vegetation

The proposed tower location at Park Headquarters is in an administrative area devoid of vegetation. In order to place the tower and antenna, limbs may need to be pruned or removed from surrounding trees. At the proposed Whiskey Creek location, a small area of native and non-native grasses would be disturbed (approximately 25-50ft²). Some minor tree pruning may also be required. Any impacts to native vegetation would be extremely limited and short-term. Native vegetation is expected to recolonize the area and as a result, this topic is dismissed from further analysis in this document.

Wildlife

The location of the proposed microwave towers are in previously disturbed areas that contain no water, minimal vegetation, and are generally flat with no major geologic features. No sensitive wildlife species are found in the area and common wildlife species are expected to avoid the area during construction and return at the completion of the project. The proposed towers are only 30 feet in height, will not require lighting or guide wires, and are not located on high points or in bird flyways. As a result, collisions with migratory birds are not expected to be an issue with the proposed towers. Therefore, this topic is dismissed from further analysis in this document.

Threatened or Endangered Species

The Endangered Species Act of 1973, as amended, requires examination of impacts on all federally listed threatened, endangered, and candidate species; Section 7 of the Endangered Species Act requires all federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) to ensure that any action authorized, funded, or carried out by the agency does not jeopardize the continued existence of listed species or critical habitats. In addition, NPS Management Policies (2006) and Director's Order 77: Natural Resources Management Guidelines require the NPS to examine the impacts on federal candidate species, as well as state listed threatened, endangered, candidate, rare, declining, and sensitive species (NPS 2006).

Further, NPS policy mandates that sensitive species be treated as if they were listed species— this policy is consistent with the statutory duty of the NPS to conserve the scenery, natural and historic objects, and wildlife in national parks and monuments by such means as will leave them unimpaired for future generations (NPS Organic Act; 16 United States Code [USC] 1).

The NRA biologists reviewed lists of sensitive plant and wildlife species that are known to occur in or near the recreation area, and reports and studies that have been conducted relative to the sensitive species and habitats. The NRA Wildlife Biologist and Ecologist performed a field review of the project area prior to preparation of this EA. Based on the documents reviewed and the field assessment of the proposed action area, no threatened/endangered species, designated critical habitat, or sensitive species would be affected by the proposed project.

Water Resources

The proposed project area does not contain surface waters and is mostly dry, except for periodic runoff during storm events. Because water quality, water quantity, and drinking water are not expected to be affected by the project, this topic is dismissed from further analysis in this document.

Wetlands

For regulatory purposes under the Clean Water Act (1972), the term wetlands means "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas."

NPS staff reviewed the U.S. Fish and Wildlife Service's National Wetlands Inventory Map and the USGS topographic map to determine if the project would have an impact on any wetlands or require significant amounts of fill or grading. The site is not located in a recognized National Wetland area. Because there are no wetlands in the proposed project area and because there would be no unacceptable impacts, this topic is dismissed from further analysis in this document.

Floodplains

No floodplains would be affected by actions proposed in this EA. Because the proposed location of the tower is not proposed within floodplains and the construction would not result in any impacts on floodplains, this topic is dismissed from further analysis in this document.

Lightscape Management

The proposed towers will not utilize exterior lighting and are not of a height requiring a beacon or warning light and therefore would have no effects on the existing outside lighting or natural night sky of the area. This topic is dismissed from further analysis in this document.

Socioeconomics

The proposed action would neither change local and regional land use nor appreciably impact local businesses or other agencies. Any increase in workforce and revenue would be temporary and negligible, lasting only as long as construction. Because the impacts to the socioeconomic environment would be negligible, this topic is dismissed.

Prime and Unique Farmlands

The Farmland Protection Policy Act of 1981, as amended, requires federal agencies to consider adverse effects to prime and unique farmlands that would result in the conversion of these lands to non-agricultural uses. Prime or unique farmland is classified by the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS), and is defined as soil that particularly produces general crops such as common foods, forage, fiber, and oil seed; unique farmland produces specialty crops such as fruits, vegetables, and nuts. The proposed project area does not contain prime or unique farmlands. Because there would be no effects on prime and unique farmlands, this topic is dismissed from further analysis in this document.

Indian Trust Resources

Secretarial Order 3175 requires that any anticipated impacts to Indian trust resources from a proposed project or action by the Department of Interior agencies be explicitly addressed in environmental documents. There are no Indian trust resources at Whiskeytown NRA. The lands comprising the park are not held in trust by the Secretary of the Interior for the benefit of Indians due to their status as Indians. Because there are no Indian trust resources located in the proposed construction areas and there would be no impacts on Indian Trust Resources, this topic is dismissed from further analysis in this document.

Environmental Justice

Executive Order 12898 General Actions to Address Environmental Justice in minority populations and low-income populations requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. No alternative under consideration would have disproportionately high and adverse 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). Therefore, environmental justice has been dismissed from further analysis in this EA.

Climate Change and Sustainability

Although climatologists are unsure about the long-term results of global climate change, it is clear that the planet is experiencing a warming trend that affects ocean currents, sea levels, polar sea ice, and global weather patterns. Currently, there is no evidence that construction of a telecommunications tower has potential to impact climate change. The effects of future climate changes are not discussed further.

ALTERNATIVES

In 2009, after the acquisition of the structure that was converted to the Whiskey Creek Ranger Station, Whiskeytown NRA staff began developing alternatives to meet the objective of providing high speed data capabilities to support Ranger operations. A list of alternatives that could potentially meet this objective was developed after consulting with communication equipment and service providers such as AT&T, Motorola, and Valley Industrial Communications Incorporated. The alternatives were further refined after consultation with Information Technology Specialists from Sequoia & Kings Canyon National Park and Redwood National and State Parks. A summary table comparing alternate components is presented at the end of this chapter.

Alternatives Carried Forward

Alternative A – No Action

Under this alternative, the microwave towers would not be constructed. The NPS objective to provide data services to the Whiskey Creek Ranger Station would not be met. This would prevent ranger staff at the Whiskey Creek Ranger Station from being able to utilize NPS telephone, intranet or internet services. If the microwave system is not installed, the building would continue to be underutilized as Ranger Staff would have to travel to other facilities to complete online reports and connect to data systems. Additionally, the building would not serve well as an east side operations center for Ranger Staff.



Figure 3: Alternative A, No Action – Proposed Location of Tower (red box) at Park Headquarters



Figure 4: Alternative A, No Action – Proposed Location of Tower (red box) at the Whiskey Creek Ranger Station

Alternative B - Tower Installation

This alternative consists of construction of one microwave tower at Park Headquarters and another at the Whiskey Creek Ranger Station. The Park Headquarters site is a previously disturbed administrative area. The footing for this tower would be constructed in fill material that was previously disturbed during the construction of the park maintenance facility. Minor relocation of existing underground utilities will be required at this location. The Whiskey Creek site is located approximately 15 meters west of the Whiskey Creek Ranger Station. The proposed tower footing would be placed in fill material that was previously disturbed as a result of the construction of structures and landscape features at this site. The tower is well screened in this location, as it placed in an open area with mature trees growing on either side. The following text further describes the components of Alternative B.

- **Towers** – The proposed towers are 30 foot tall metal towers (Figure 5). Each tower would require a reinforced concrete base 63 inches square by 48 inches deep. Each tower site would require the installation of 4 to 6 foot long grounding rods bonded to the tower for lightning protection. The grounding rods will be located immediately adjacent to the concrete base.
- **Antennas** - Each tower will have a 48 inch flat panel digital antenna dish weighing no more than 85 pounds (Figure 6). With the antenna shroud, the total outside diameter is 50 inches and the face of the antenna sits 35 inches away from the center of the tower mast.



Figure 5. Tower components would be of this type and color

- **Cable** - Each antenna and tower will have a CAT 6 Ethernet cable run down the tower and to adjacent buildings to complete the communications link. The cable can easily be strung or placed in conduit and is similar in appearance to a standard residential telephone cable. The equipment is powered over Ethernet, so additional utilities (e.g. electricity) are not needed at the antenna sites.

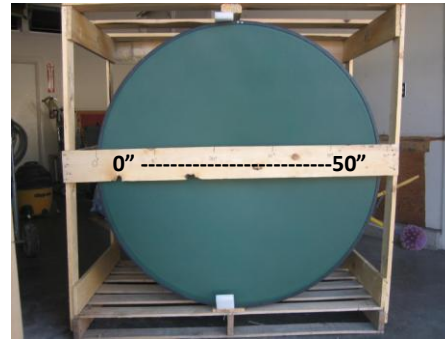


Figure 6. Antenna shroud would be painted as in this photograph

- **Use/Operation of the Facility** – The towers will only be used to support microwave communications service to the Whiskey Creek Ranger Station. While it is possible that additional antennas or equipment to support NPS operations could be placed on these structures, there are no current plans to do so. It is unlikely to be commercial interest in collocating on either tower, as the locations are only conducive to communications within NRA. There was an interest expressed by a park neighbor owning a property adjacent to the Whiskey Creek Ranger Station in utilizing the internet service provided by this alternative at their residence, however, Department of the Interior security requirements do not allow for private use of government internet systems.
- **Access** – Access to the towers would be by existing paved roads in the Park Headquarters complex, the Whiskey Creek Ranger Station access road and other paved roads within the park.
- **Vegetation Removal** – The proposed Park Headquarters site is located on bare soil. In order to assemble the tower and ensure an adequate line of sight for the microwave beam, trimming of adjacent trees may be required. The Whiskey Creek site contains only understory grasses. Any area disturbed by the installation of the concrete base would be mulched with leaf litter from the surrounding area to prevent erosion and the introduction of exotic plant species and to provide a native seed source.
- **Construction Staging** – To implement this alternative, a small area near the towers may be used for construction staging, material stockpiling, or equipment storage. Both locations are near paved parking areas where equipment and materials may be staged without any ground disturbance. Any staging off these paved surfaces will only occur in previously disturbed areas. All staging areas, as with the tower locations, are in administrative areas of the park and will not impact visitor use.



Figure 7. Antenna Dish hoisted from a boom truck to illustrate what the microwave towers will look like at the Whiskey Creek Ranger Station. Photo taken from Whiskeytown Lake.



Figure 8. Antenna Dish hoisted from a boom truck to illustrate what the microwave towers will look like at the Park Headquarters. This photo was taken a few meters north of the proposed tower location. The location proposed in this environmental assessment is slightly behind the location depicted above, and will be less visible as a result. Photo taken from Whiskeytown Lake.

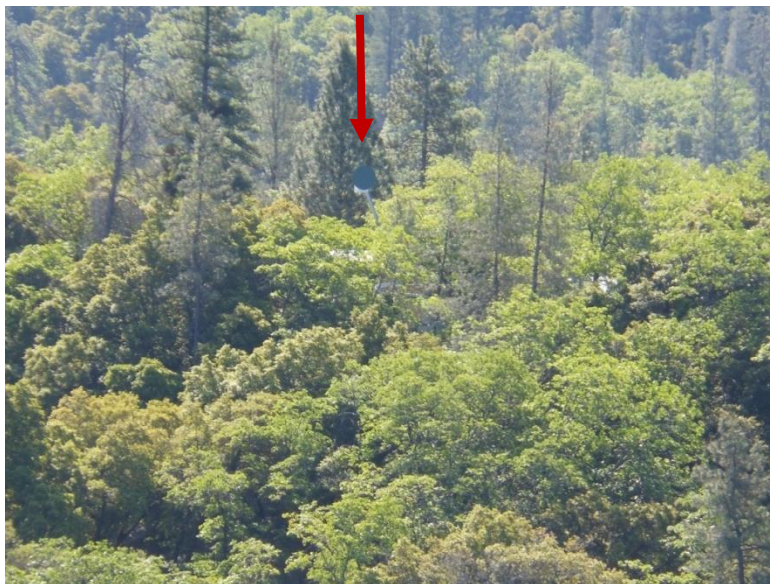


Figure 9. Close-up photo of Park Headquarters location. The proposed tower placement will be slightly behind the location depicted in this photo, making the tower less visible from the lake.

Mitigation Measures

The following mitigation measures were developed to minimize the degree and/or severity of adverse effects and would be implemented during construction of the action alternative, as needed:

- The tower and exterior antenna surfaces will be painted with a non-reflective paint in a color ("Hunter Green" or similar as represented in the photographs of equipment in Alternative B) that will blend as much as possible with the native surroundings to minimize its visibility. These measures are the same as those applied to communications facilities on the summit of Shasta Bally.
- All equipment will be cleaned, including pressure washing of the undercarriage, prior to entering the worksite to ensure no invasive or noxious weeds are transported into or across the park.
- Any clearing or trimming of vegetation will be the minimum necessary to provide equipment access to assemble the towers and ensure adequate signal transmission. Vegetation at the tower sites will be preserved as much as possible in order to serve as a screen to reduce tower visibility and reduce impacts to biological resources. All proposed clearing will be coordinated with park Resource Management staff.
- To minimize the amount of ground disturbance, staging and stockpiling areas will be in previously disturbed sites, away from visitor use areas to the extent possible. All staging and stockpiling areas would be returned to pre-construction conditions following construction.
- Construction zones will be identified and fenced with construction tape, snow fencing, or some similar material prior to and during any construction activity. The fencing will define the construction zone and confine activity to the minimum area required for construction. All protection measures will be clearly stated in the construction specifications and workers will be instructed to avoid conducting activities beyond the construction zone as defined by the construction zone fencing.
- Fugitive dust generated by construction will be controlled by spraying water on the construction site, if necessary.
- To reduce noise and emissions, construction equipment will not be permitted to idle.
- To minimize possible petrochemical leaks from construction equipment, park staff will regularly monitor and check construction equipment to identify and repair any leaks.
- Should construction unearth previously undiscovered cultural resources, work would be stopped in the area of any discovery and the recreation area would consult with the state historic preservation officer and the Advisory Council on Historic Preservation, as necessary, according to §36 CFR 800.13, *Post Review Discoveries*. In the unlikely event that human remains are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (1990) would be followed.
- According to *Management Policies 2006*, the NPS would strive to construct facilities with sustainable designs and systems to minimize potential environmental impacts. Development would not compete with or dominate the recreation area's features, or interfere with natural processes, such as the seasonal migration of wildlife or hydrologic activity associated with wetlands. To the extent possible, the design and management of facilities will emphasize environmental sensitivity in construction, use of nontoxic materials, resource

conservation, recycling, and integration of visitors with natural and cultural settings. The NPS also reduces energy costs, eliminates waste, and conserves energy resources by using energy-efficient and cost-effective technology. Energy efficiency is incorporated into the decision-making process during the design and acquisition of buildings, facilities, and transportation systems that emphasize the use of renewable energy sources.

Alternatives Considered and Dismissed

The following alternatives were considered for project implementation, but were ultimately dismissed from further analysis. Reasons for their dismissal are provided in the following alternative descriptions.

Upgrade Telephone Connectivity

NPS staff contacted AT&T about installing upgraded service that would support internet use and the park's Cisco VOIP telephone systems. Due to the small number of residences along Whiskey Creek Road, service providers are not interested in expanding their infrastructure to accommodate this need, even with a potential financial contribution from the NPS to facilitate this.

Satellite or other options

Satellite internet services may be available at this location. These services, however, would not provide adequate bandwidth to support NPS requirements. Due to security requirements, additional hardware or software would be necessary to access the NPS intranet under this option. Additionally, these services would require a monthly service charge, unlike the proposed action.

Commercial Microwave System

AT&T, or another provider, could provide a commercial microwave link from their facilities on South Fork Mountain. There are existing communication towers at this location. Initial start-up costs were quoted to be between \$100,000 and \$200,000, and a monthly service charge would be assessed. Due to security requirements, additional hardware or software would be necessary to access the NPS intranet under this option.

Alternative Tower Locations

Consideration was given to moving this tower further upslope above the Ranger Station and a private residence. This would have required much more extensive vegetation clearing, the construction of an access road, and additional utilities to support the increased distance from the Ranger Station. This alternate location would not provide better screening of the tower or provide any significant reduction in exposure to microwave radiation (see the Health and Safety impact analysis, page 21).

Table 1: Summary of Alternatives and How Each Alternative Meets Project Objectives

Alternative Elements	Alternative A - No Action	Alternative B - Install New Tower
New Microwave Towers	The microwave towers would not be completed, and therefore broadband data connection to the Whiskey Creek Ranger Station would not be possible.	The microwave towers would be constructed, providing a broadband data connection to the Whiskey Creek Ranger Station. This would improve communications at this site and allow the office to fully function as a Ranger Station.
Utilities/Construction Staging	New utility connects and construction staging would not be needed.	Excavation will be required for tower foundations. Utilities will be routed above ground. Since these towers would be

		placed in developed areas, any necessary staging would occur on hardened surfaces. Some minor relocation of utilities would be required at the park headquarters site.
Health and Safety	The microwave towers would not be completed, and there would be no change in park ranger operations or the current use of the Whiskey Creek Ranger Station.	Under this alternative the Whiskey Creek Ranger Station could fully function as an east side operations center for the park and would be available for use as an operations center in the event of emergencies. Ranger office space would be distributed around the park and response times may decrease.
Project Objectives	Meets Project Objectives?	Meets Project Objectives?
Provide the infrastructure to support a communication link with broadband data capabilities at the Whiskey Creek Ranger Station.	No. A microwave tower or alternative broadband data communication infrastructure does not currently exist at this site.	Yes. Microwave towers would provide the capabilities to link the Whiskey Creek Ranger Station to the existing NPS Communication Network at the park headquarters.
Identify a location that minimizes impacts to park resources and will not result in impairment or unacceptable impacts to these resources.	Yes. There are currently no towers at either proposed location. Therefore, the Property is not currently impacted.	Yes. The location of both proposed microwave towers are within administrative areas that have experienced prior ground disturbance.

Environmentally Preferred Alternative

The environmentally preferred alternative is determined by applying the criteria suggested in the National Environmental Policy Act of 1969 (NEPA), which guides the Council on Environmental Quality (CEQ). The CEQ provides direction that the environmentally preferable alternative is the alternative that would promote the national environmental policy as expressed in NEPA's §101:

- fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- assure for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings;
- range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
- preserve important historic, cultural and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice;
- achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
- enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Alternative A, the No Action Alternative, is not the environmentally preferred alternative because it would affect park operations by not providing Ranger staff with broadband connectivity at the Whiskey Creek Ranger Station. Additionally, not expanding the park communications infrastructure has the potential to reduce the health and safety of park visitors and employees.

Alternative B is the environmentally preferred alternative because it best addresses these six evaluation factors. Alternative B, Installation of the Microwave Communications Towers, would provide the NPS the increased communication capabilities that would allow the Whiskey Creek Ranger Station to be a fully staffed and functioning Ranger Station. The increased communications capability has the potential to increase the health and safety of park visitors and employees by distributing ranger office space throughout the park, and providing adequate communication infrastructure that would allow for increased efficiency in the work of the park ranger staff. This communications link will also allow the Ranger Station to be an additional emergency operations center during searches, fires, illegal marijuana cultivation raids or other incidents. Furthermore, the NPS has identified tower locations and designs that will not impede visitor experiences in the park, be visible only minimally beyond the administrative areas in which they are located, and disturb only previously disturbed areas within the park.

No new information came forward from public scoping or consultation with other agencies and park specialists to necessitate the development of any new alternatives, other than those described and evaluated in this document. Because it meets the purpose and need for the project, the project objectives, and is the environmentally preferred alternative, Alternative B is also recommended as the NPS's preferred alternative.

ENVIRONMENTAL CONSEQUENCES

Cumulative Impact Scenario

The Council on Environmental Quality (CEQ) regulations, which implemented the National Environmental Policy Act of 1969 (42 USC 4321 et seq.), 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 non-federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative impacts are considered for both the No Action and Proposed Action Alternative.

Air Quality

Affected Environment

Whiskeytown is located in the Sacramento Valley Air Basin. The Shasta County Air Quality Management District oversees air quality matters in the Whiskeytown area. Sections 160-169 of the Clean Air Act (CAA) established the Prevention of Significant Deterioration program to preserve, protect, and enhance air quality in regions of the United States that are of special national or regional natural, recreational, scenic, or historic value. Under these provisions Congress instituted a classification approach for controlling the increase of air pollution based on existing clean air condition. Class I areas are afforded the greatest degree of air quality protection against industrial growth. Class II areas allow for moderate deterioration, associated with well-managed growth. Class III areas allow the greatest amount of deterioration. Whiskeytown NRA is a Class II air quality area. Air quality related concerns at Whiskeytown include visibility, vegetation, and visitor and employee health.

Intensity Level Definitions

- Negligible – an impact would be at the lower levels of detection or not measurable.
- Minor – an impact would have a slight, localized effect on air quality or visibility.
- Moderate – an impact would have clearly detectable effects on air quality or visibility over a more widespread area of the park.
- Major – an impact would have severely adverse or exceptionally beneficial effects on air quality or visibility and potentially would affect the regional air shed.

Impacts of Alternative A (No-Action Alternative)

The No Action alternative would have no impact on the air quality of Whiskeytown National Recreation Area because under this alternative, the tower would not be constructed.

Cumulative Effects: Under this alternative, the towers would not be built and there would be no cumulative effects on the air quality in the NRA.

Conclusion: The No Action alternative would have no effect on park air quality at Whiskeytown. The microwave towers would not be built and this would have no impact on park air quality when considered with other past, present and reasonably foreseeable future actions.

Impacts of Alternative B (Proposed Action)

Under the Proposed Action Alternative, construction work would temporarily contribute negligible amounts of fugitive dust emissions and vehicle and equipment exhaust in the immediate vicinity of the construction areas. Dust will be minimized by wetting construction surfaces during particularly dry or windy conditions. It is unlikely that any fugitive dust would impact park operations or visitor experience as work will be conducted in areas not typically used by park visitors.

Cumulative Effects: The proposed tower installation would contribute a negligible increment to the total cumulative past, present and reasonable foreseeable future air pollution in the park. While fugitive dust will be generated in the immediate vicinity of the proposed location, it will be limited in duration and will not continue after construction of the tower is completed. Thus, the proposed action will temporarily contribute negligible amounts of fugitive dust, and vehicle and equipment emissions.

Conclusion: The proposed action would have a minor and temporary impact on air quality in the immediate vicinity of the construction zones in the short term and there would be no impairment to the park's air quality in the long term.

Soundscapes

Affected Environment

Natural soundscapes in parks are often evaluated in terms of a human need for quiet and solitude. Research in acoustics and natural sound, however, demonstrates that natural sound is an important ecological attribute. Impacts to natural sound not only affect the human environment but can threaten the underpinnings of park ecology.

Intensity Level Definitions

- Negligible – an impact would be at the lower levels of detection or not measurable.
- Minor – an impact would have a slight, localized effect on the ambient acoustic environment.
- Moderate – an impact would have clearly detectable effects on the ambient acoustic environment over a more widespread area of the park.

- Major – an impact would have severely adverse or exceptionally beneficial effects on the ambient acoustic environment and potentially would have a long term affect.

Impacts of Alternative A (No Action Alternative)

The No Action alternative would have no impact on the natural soundscapes in Whiskeytown.

Cumulative Effects: Under this alternative, the towers would not be built and there would be no cumulative effects on park soundscapes.

Conclusion: The No Action alternative would have no effect on park soundscapes at the park. . The microwave towers would not be built and this would have no impact on park soundscapes when considered with other past, present, and reasonably foreseeable future actions.

Impacts of Alternative B (Proposed Action)

Under the Proposed Action Alternative, a slight increase in ambient noise would occur during the installation of the tower. Any sounds generated from construction would be temporary, lasting only as long as the construction activity is generating the sounds and would have a negligible impact on the park soundscapes limited to the immediate vicinity of the proposed area of construction. Additionally, there are no backup generators or other motorized devices installed to operate the antenna or provide auxiliary power to the towers in the event of a power interruption.

Cumulative Effects: The proposed tower installation would contribute a negligible and extremely localized increment to the total cumulative past, present and reasonable foreseeable future soundscapes in the park. While noises will be generated in the immediate vicinity of the proposed location of the tower during construction, any sounds would last only as long as the construction and will cease after the tower after installation is completed. Additionally, once completed, the tower will not generate any noise. Thus, the proposed action will temporarily contribute negligible minor noise impacts.

Conclusion: The proposed action would have a minor and temporary impact on the natural soundscapes in the immediate vicinity of the project area during the construction; however, there would be no impairment to the park's natural soundscapes in the long term.

National Recreation Area Operations

Affected Environment

NRA operations that are principally affected by the alternatives are the Park Rangers (law enforcement), emergency response, and maintenance. Resource management staff would also be involved to monitor impacts and implement restoration activities under Alternative B. The law enforcement unit for the NRA currently has 10 permanent park rangers and one seasonal ranger. Responsibilities of this staff include search and rescue, emergency medical assistance, assistance with traffic accidents, providing resource protection messages, and maintaining law and order in the NRA. The maintenance division has 10 permanent employees and approximately 19 seasonal employees, in aggregate totaling 3 FTE (fulltime equivalents). Maintenance staff are responsible for the care and maintenance of park facilities, infrastructure, and physical and cultural resources. The maintenance staff performs a variety of duties including hazard tree removal and brushing trailsides vegetation, inspecting and maintaining picnic areas and campgrounds, and maintaining water and wastewater systems throughout the NRA.

Intensity Level Definitions

- Negligible – an impact would be at the lower levels of detection or not measurable.
- Minor – an impact would have a slight, localized effect on air quality or visibility.

- Moderate – an impact would have clearly detectable effects on air quality or visibility over a more widespread area of the park.
- Major – an impact would have severely adverse or exceptionally beneficial effects on air quality or visibility and potentially would affect the regional air shed.

Impacts of Alternative A (No Action Alternative)

The No Action alternative would have minor impact on the law enforcement operations of the park because under this alternative, the microwave towers would not be constructed, and the Whiskey Creek Ranger Station would not be fully utilized. Under this alternative there would continue to be a shortage of office space for ranger staff. Staff efficiency would be reduced due to the lack of communication infrastructure at the ranger station. Ranger staff would be less distributed around the park for the purpose of emergency response and the ranger station would not serve well as an operations center for emergency incidents in the park. There would be no impact on maintenance under this alternative.

Cumulative Effects: Under this alternative, the towers would not be built and there would be no cumulative effects on park operations at the NRA.

Conclusion: The no-action alternative would have a minor long-term effect on park operations Whiskeytown National Recreation Area. The microwave towers would not be built and this could have a minor adverse impact on the efficiency of law enforcement and emergency operations in the park.

Impacts of Alternative B (Proposed Action)

Under the Proposed Action Alternative, the construction of the microwave communication towers is anticipated to have a long-term minor beneficial impact to law enforcement and emergency operations. The enhanced communication infrastructure would allow the Whiskey Creek Ranger Station to be fully utilized as a ranger office. This would distribute additional ranger office space to the east side of the park. The ranger station would then be suitable to serve as an operations center to coordinate emergency operations in the park.

The construction of the towers would have an overall negligible impact to park maintenance and resource management operations. There would be a short term impact during construction, which would be performed by maintenance personnel and monitored by resource staff. Resource management staff would be temporally impacted in order to address any restoration or invasive plant control requirements. The additional infrastructure would also be a long-term negligible impact to maintenance staff as they would be required to keep the equipment operational and perform routine maintenance (inspections, painting, etc.).

Cumulative Effects: The proposed tower installation would contribute a negligible increment to the total cumulative past, present and reasonable foreseeable future park operations. Increased communications and additional office space is likely to improve law enforcement and emergency operations in the long term. While increased maintenance requirements of additional infrastructure will result in an additional workload and cost to park maintenance operations.

Conclusion: The proposed action would have an overall minor and long-term and beneficial impact on NRA Operations, resulting in adequate communications infrastructure at the Whiskey Creek Ranger Station for law enforcement and emergency operations.

Viewsheds and Visitor Experience

Affected Environment

The park attracts an average of about 800,000 visitors per year, mostly drawn to the recreational opportunities provided by Whiskeytown Lake. Boating, kayaking, wakeboarding, fishing, swimming, and sailing are popular pastimes. Whiskeytown also offers numerous land-based activities such as hiking, backpacking, mountain biking, hunting, horseback riding, wildlife viewing, and gold panning. Several campgrounds are available, ranging from RV camping at Brandy Creek, RV and tent camping at Oak Bottom, and primitive camping at six locations throughout the area.

Most visitor use occurs from Memorial Day to Labor Day, when air and lake temperatures are warm and students are out of school. Weekends in the fall can also be busy if the weather is mild. Whiskeytown Lake maintains a fairly stable water level from May to October, as opposed to many other reservoirs in the area, which makes it even more attractive.

The proposed locations for microwave towers are in administrative areas. These locations are not frequented by park visitors. However, the towers may be visible from public use areas.

Intensity Level Definitions

- Negligible - could have a small effect on visitor experience that would not be measurable and/or would affect few people
- Minor – could have a slight and localized effect on visitor experience with few measurable results and/or would affect some people
- Moderate – would affect visitor use in a readily apparent beneficial or adverse change and/or would affect a large number of people.
- Major – would have a substantial adverse or beneficial effect on visitor experience and/or affect the large majority of people.

Impacts of Alternative A (No Action Alternative)

Since there would be no installation of microwave towers, the No Action alternative would not affect the viewsheds or visitor use and enjoyment of Whiskeytown.

Cumulative Effects: Under this alternative, the towers would not be built and there would be no cumulative effects to visitor use and enjoyment of the park.

Conclusion: The No Action alternative would have no effect on visitor use and enjoyment of the NRA. The microwave tower would not be built and therefore would not affect park visitors or their enjoyment of the park when considered with other past, present, and reasonably foreseeable future actions.

Impacts of Alternative B (Proposed Action)

The proposed locations of both microwave towers are in developed zones that are not frequented by the public. Both locations are within 700 feet of Whiskeytown Lake. In order to minimize the visibility of the towers and the antennas, all surfaces will be painted with a non-reflective green paint to blend in with the surrounding vegetation. Only limited vegetation surrounding the proposed towers will need to be removed, so neighboring vegetation will also serve as a visual screen. Due to their low height (< 30 feet), the towers do not pose a risk to navigation, and do not require lighting.

In order to reduce impact on the park viewshed, the park conducted visibility tests. A 50-inch painted green disk was hoisted to 25-feet in height at each proposed location using the park bucket truck. The camouflaged towers are expected to be less visible than adjacent infrastructure such as buildings, telephone poles and utility towers (Figures 7, 8 and 9).

Cumulative Impacts: Considering that some visitors would view additional infrastructure negatively, the proposed tower would add incrementally to the number of built facilities in the park, particularly to the infrastructure at Park Headquarters and the Whiskey Creek Ranger Station. Whiskeytown has a permitted Wireless Communications Facilities on Shasta Bally, which contains about a dozen towers that each host several antennas. Additionally, just outside the park boundary, a communication facility on South Fork Mountain also houses multiple communication providers. All of these facilities contain multiple antennas (cellular, television, microwave, etc.) located on high points on towers taller than proposed in this alternative. As a result, the construction of the proposed tower is expected to add slightly to the current infrastructure footprint.

Conclusions: The proposed tower is located in an administrative area of the park where visitors would expect to see signs of human activity and park infrastructure. The proposed tower would add to the footprint of park infrastructure and would be visible at times from locations along Highway 299 or the Lake. The towers would not be visible from the park's Historic District or any designated viewing points. With the mitigation measures taken to screen and camouflage the towers, and because of their limited height, overall impact to visitor enjoyment from the visual impact of the towers on the park viewshed is expected to be adverse, long-term and minor.

Health and Safety

Affected Environment

The NPS is committed to providing appropriate, high-quality opportunities for visitors and employees to enjoy the parks in a safe and healthful environment. Further, the NPS will strive to protect human life and provide for injury-free visits. Human health and safety concerns associated with the installation of microwave communication towers include providing adequate communications to allow the Whiskey Creek Ranger Station to be fully operational and the potential for limiting or eliminating exposure to radiofrequency electromagnetic fields.

Intensity Level Definitions

- Negligible – an impact would be at the lower levels of detection or not measurable.
- Minor – an impact would have a slight, localized effect on air quality or visibility.
- Moderate – an impact would have clearly detectable effects on air quality or visibility over a more widespread area of the park.
- Major – an impact would have severely adverse or exceptionally beneficial effects on air quality or visibility and potentially would affect the regional air shed.

Impacts of Alternative A (No Action Alternative)

The No Action alternative would potentially have a negligible adverse impact on the Health and Safety on visitors and employees at the NRA because under this alternative, the towers would not be constructed and the Whiskey Creek Ranger Station would not be fully utilized by ranger staff. The Whiskey Creek Ranger Station would not serve well as the east side operations center for park rangers, and would not be available for use as an emergency operations center. This facility would not distribute park ranger office space throughout the park, which has the potential to reduce response time. Not having adequate communications infrastructure would make this facility less useful to the ranger staff and could have a long-term negligible adverse impact on Health and

Safety. Under this alternative, the microwave towers would not be constructed, and as a result, there would be no potential for exposure to radiofrequency electromagnetic fields.

Cumulative Effects: Under this alternative, the towers would not be built and there would be no cumulative effects on the Health and Safety in the park.

Conclusion: The No Action alternative would have a long-term negligible effect on park health and safety at Whiskeytown National Recreation Area. The microwave towers would not be built and this would have a long-term negligible impact on park health and safety when considered with other past, present and reasonably foreseeable future actions.

Impacts of Alternative B (Proposed Action)

The Proposed Action Alternative would potentially have a negligible beneficial impact on the health and safety of visitors and employees at the NRA because under this alternative, the microwave towers would be constructed and the Whiskey Creek Ranger Station would be fully utilized by ranger staff. The Whiskey Creek Ranger Station would serve as the east side operations center for park rangers, and would be available for use as an emergency operations center. This facility would provide a distribution of park ranger office space throughout the park, potentially reducing response time.

The proposed microwave dishes located at Whiskey Creek and Park Headquarters would not contribute to any additional radiofrequency electromagnetic field exposure to visitors or park staff. Transmission energy from the dishes would be confined to a tight beam emitted at the elevation of the dishes. With the dishes mounted at 25 feet above ground, the transmission beams would be above anyone standing at ground level or in nearby buildings. The proposed transmission bridge has a very low output power level: +27dBm (~0.5 watts). Measurements have shown that ground-power level densities from microwave antennas are normally a thousand times below safety limits (FCC 1999).

Cumulative Effects: The proposed microwave tower installation would contribute a negligible increment to the total cumulative past, present and reasonable foreseeable future factors affecting health and safety in the park. Past and present projects that have impacted or have the potential to impact health and safety by affecting emergency services infrastructure and potential exposure to RF emissions include the construction of the Oak Bottom Fire Station and other wireless telecommunication towers. There are no other known plans for additional wireless communications towers, though companies may choose to co-locate on existing towers. Co-location will not be allowed on the proposed microwave towers, though due to their location, this option is not expected to be desirable. The overall long-term, negligible, adverse effects and long-term beneficial effects of the past and present actions, in combination with the long-term, negligible, beneficial impacts of the proposed action would result in long-term, negligible, adverse impacts, short-term minor adverse, and long-term beneficial impacts on health and safety.

Conclusion: The proposed action would have a long-term negligible beneficial impact on health and safety because the Whiskey Creek Ranger Station could fully function as an east-side operations center for park rangers, and would be available for use as an emergency operations center. This facility would provide a distribution of park ranger office space throughout the park, potentially reducing response time.

CONSULTATION AND COORDINATION

Internal Scoping

Internal technical scoping was conducted by Information Technology Specialists from Sequoia & Kings Canyon National Park and Redwood National and State Parks, as well as Whiskeytown staff. In order to develop potential options for providing the necessary communications infrastructure, several communication providers were consulted during scoping including AT&T, Motorola, and Valley Industrial Communications Incorporated. An Environmental Screening Form (ESF) was completed by Whiskeytown National Recreation area, and discusses the purpose and need for the project.

External Scoping

A press release initiating public scoping and describing the proposed action was issued on February 15, 2012 (Appendix A). A public meeting was held on February 29, 2012, at Redding City Hall. Approximately 60 people attended. Comments were solicited during a public scoping period that ended on March 30, 2012. Two comments were received on the internet. One comment expressed support for the proposed microwave towers. The other comment was from a park neighbor that inquired about the possibility of also utilizing the internet that would be provided by the microwave link and commented on the placement of the tower to be located at the Whiskey Creek Ranger Station. The public and other interested parties will also have an opportunity to review and comment on this Environmental Assessment.

The Redding Rancheria was contacted to determine if there were any ethnographic resources in the project area or if they had any other concerns related to the proposed project. The letter sent to the Tribe is found in Appendix B.

Whiskeytown NRA falls within the area covered under the Northwest Forest Plan. Under the streamlined consultation process, agency actions that would result in a "no effect" determination do not require further section 7 consultation with the U.S. Fish and Wildlife Service. Therefore, consultation with the U.S. Fish and Wildlife Service was not initiated.

REFERENCES

- FCC 1999 Questions and Answers about Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields. OET Bulletin 56. Fourth Edition. August 1999.
- NPS 2006 *Management Policies*, National Park Service, U.S. Department of the Interior, December 2006.
- NPS 2001 Director's Orders #12: Conservation Planning, Environmental Impact Analysis, and Decision-making
- NPS 2001 Executive Order #13186 - Responsibilities of Federal Agencies to Protect Migratory Birds, 2001
- NPS 2000 *NPS Director's Order, Special Park Uses*, National Park Service, U.S. Department of the Interior, 2000
- NPS 2000 RM-53 Reference Manual Special Park Uses
- NPS 1998 National Parks Omnibus Management Act of 1998 and NPS Organic Act
- NPS 1973 Endangered Species Act, 1973, as amended
- NPS 1916 U.S. Department of Interior, National Park Service. National Park Service Organic Act.
- USFWS 2000 *Guidelines on Siting Telecommunications Facilities*, 2000

APPENDIX A – Press Release

Whiskeytown News Release

February 15 , 2012
For Immediate Release
Jim Milestone (530) 242-3410

Public Meeting to Discuss Upcoming Park Projects

A public scoping meeting will be held on February 29, 2012 at 6:30 p.m. to assist the National Park Service in the planning of two upcoming park projects. The meeting will be held in the Community Room of Redding City Hall at 777 Cypress Avenue, Redding, California.

Whiskeytown National Recreation Area staff are currently developing Environmental Assessments (EA's) for 1) managing the park's backcountry and 2) installing a microwave communication system to connect the Whiskey Creek Ranger Station to the park's information technology infrastructure.

Backcountry Management Plan

The National Park Service is preparing a Backcountry Management Plan (BMP) and Environmental Assessment (EA) to guide future management of the park's backcountry. Potential alternatives could include expansion of the trail system in the backcountry, new campgrounds and campsites in more remote areas, and hiker's huts in several locations scattered throughout the park. The park would like to know what you value about Whiskeytown's backcountry as well as any issues or concerns you have regarding how the backcountry is used and managed.

All interested individuals and agencies are encouraged to review potential alternatives and provide comments either at this meeting, online at:

<http://parkplanning.nps.gov/BackcountryManagementPlanScoping>, or by mail to Whiskeytown National Recreation Area, Backcountry Management Plan Comments, P.O. Box 188, Whiskeytown, CA 96095-0188.

Whiskey Creek Ranger Station Communication Link

The National Park Service (NPS) is proposing the use of microwave technology to create a communications link between the Park Headquarters and the Whiskey Creek Ranger Office. The Whiskey Creek Ranger Office is located on Whiskey Creek Road and currently only has basic telephone service available. In order to connect to National Park Service computer intranet systems, the NPS is proposing linking this facility to existing information technology infrastructure available at the Park Headquarters. This solution is the most cost effective option to providing data services to this location. In order to create this link, two 30 foot high self-supporting towers with dish antennas would be installed in administrative areas and painted dark green in order to blend in with the surrounding vegetation.

All interested individuals and agencies are encouraged to review potential alternatives and provide comments either at this meeting, online at: <http://parkplanning.nps.gov/WhiskeyCreekCommunicationLink>, or by mail to Whiskeytown National Recreation Area, Whiskey Creek Ranger Office Communications Link, P.O. Box 188, Whiskeytown, CA 96095-0188.

-NPS -

APPENDIX B – Letter to Tribe

Note: The following section does not include the attachments sent with the original letter to the Redding Rancheria. The attachments contained the figures presented throughout this environmental assessment and were omitted to reduce redundancy and unnecessary printing costs. A copy of the letter with all the attachments is available upon request.



United States Department of the Interior

NATIONAL PARK SERVICE
WHISKEYTOWN NATIONAL RECREATION AREA
WHISKEYTOWN-SHASTA-TRINITY NATIONAL RECREATION AREA
P.O. BOX 188
WHISKEYTOWN, CA 96095-0188



IN REPLY REFER TO:
WHIS L7617

May 23, 2012

Jason Hart, Chairperson
Redding Rancheria
2000 Redding Rancheria Road
Redding, CA 96001

Dear Chairperson Hart:

In 2009, the National Park Service acquired a structure at 13651 Whiskey Creek Road. Due to the condition of the building, and proximity to Highway 299 and the Whiskey Creek day use areas, it was converted to offices for park ranger staff. The building has basic telephone service, but due to the distance of the property from communications infrastructure; there are no internet data services available. In order for Park Rangers to utilize secure intranet and internet services, as well as the park's Voice over Internet Protocol (VoIP) phone system, this facility must be linked to a communication system capable of providing the bandwidth to handle these services.

The National Park Service proposes to link this facility via microwave technology to the existing information technology infrastructure available at the Park Headquarters. This proposal was developed after consulting with communication equipment and service providers such as AT&T, Motorola, and Valley Industrial Communications Incorporated. Park staff are currently preparing an environmental assessment that analyzes this proposal and other alternatives, and their potential impacts the park's natural and cultural resources.

The proposed project consists of construction one microwave tower at Park Headquarters and another at the Whiskey Creek Ranger Station (Enclosure 1). The Park Headquarters site is a previously disturbed administrative area (Enclosure 2). The footing for this tower would be constructed in fill material placed during the installation of a fueling station for park vehicles. The Whiskey Creek Site is located approximately 15 meters west of the Whiskey Creek Ranger Station (Enclosure 3). The proposed tower footing would be placed in fill material that was previously disturbed by the construction of structures and landscape features at this site.

The proposed towers are 30 foot tall 45G Rohn metal towers. Each tower would require a reinforced concrete base 63 inches square by 48 inches deep, and 4 to 6 foot long grounding rods bonded to the tower for lightning protection. The towers will support a 48 inch flat panel digital antenna dish. With the antenna shroud, the total outside diameter is 50 inches and the face of the antenna sits 35 inches away from the center of the tower mast. Both the towers and the antennas will be painted with a non-reflective paint in a color (“Hunter Green” or similar) that will blend with the native surroundings to minimize visibility.

The proposed locations of both microwave towers are within administrative areas adjacent to existing park infrastructure. The towers will not be visible from the Tower House Historic District. The towers, due to the distance from, and orientation relative to Shasta Bally, will not be readily visible from any point on the mountain. To ensure minimal impact to the viewshed of any known Wintu traditional cultural sites, and the overall park viewshed, park staff conducted a visibility test. A 50” painted green disk was hoisted to 25 feet in height at each proposed location using a bucket truck. The camouflaged towers are expected to be less visible than adjacent infrastructure, as shown in the photographs taken during the test (Enclosure 4 & 5).

Since the towers will be placed in administrative areas on previously disturbed ground, and past cultural resources surveys indicate that no cultural resources were located in the vicinity of either of the proposed locations, the project is not expected to result in any direct impacts to historic structures, ethnographic resources or cultural landscapes. We would appreciate your review of the attached information, to ensure that no other unknown ethnographic or other Tribal resources would potentially be impact by this project. Any comments would be appreciated by June 11 2012, as we would like to have the environmental assessment available for public review by approximately June 15.

The National Park Service and staff at Whiskeytown National Recreation Area greatly value the collaborative process undertaken with the Redding Rancheria to ensure that traditional cultural properties are protected within the park. My staff and I look forward to continuing to work with you, Mr. James Hayward, Sr., and other Tribal representatives to interpret and protect the cultural history of the park and ensure the safety of all park users.

If you have any questions about this project you may contact me directly at (530) 242-3460 or via email at jim_milestone@nps.gov. Thank you for your assistance with the matter.
Sincerely,



Jim Milestone
Superintendent

APPENDIX C – Guiding Laws, Regulations and Policies

Telecommunications Act of 1996, P.L. No. 104-104, 110 Stat. 56 § 704(c), 47 USCA § 332 note:

The Telecommunications Act of 1996 was enacted "to promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies" [Public Law No. 104-104, 110 Stat. 56 (1996)]. Section 704(c) of the Telecommunications Act of 1996 and its regulations make federal property, including parkland, available for placement of telecommunications equipment by duly authorized providers absent unavoidable conflicts with the department or agency's mission, or the current or planned use of the property, or access to that property.

Presidential Memorandum: Facilitating Access to Federal Property for the Siting of Mobile Service Antennas (1995), 60 FR 42023, 40 USC § 581, note, 1995

The Presidential Memorandum of August 10, 1995, "Facilitating Access to Federal Property for the Siting of Mobile Services Antennas," directs the heads of all departments and agencies to facilitate appropriate access to federal property for the purpose of siting mobile services antennas, as long as such siting is in accordance with federal, state, and local laws and regulations, environmental and aesthetic concerns, preservation of historic buildings and monuments, and protection of natural and cultural resources.

Agencies are authorized to charge reasonable fees for antenna sites on federal property and they should be based on fair market value.

GSA Bulletin FMR 2007-B2, Placement of Commercial Antennas on Federal Property, 72 FR 11881, March 14, 2007

FMR 2007-B2 is the General Services Administration (GSA)-issued government-wide procedures for the placement of commercial antennas on federal property in order to implement the 1995 Presidential Memorandum and Section 704(c) of the Telecommunications Act of 1996. This 2007 bulletin replaces FPMR-242. The bulletin directs federal agencies to evaluate siting requests and determine if there would be unavoidable conflicts with the department's or agency's mission, or current or planned use of the property or access to that property. In evaluating siting requests, agencies should include consideration of the requirements of the federal agency managing the facility. Actions to be taken by federal agencies under these guidelines include determining the impact to their properties, review of internal agency rules, dissemination of antenna guidelines, timely response to siting requests, maintaining open communications, and establishing points of contact. These guidelines also direct federal agencies to take into consideration environmental and historic preservation issues during siting, that should include, but not be limited to the following:

- Public health and safety;
- Aesthetics;
- Effects of historic districts, sites, buildings, monuments, structures, or other objects pursuant to the NHPA and implementing regulations;
- Protection of natural and cultural resources;
- Compliance with the appropriate level of review and documentation as necessary

under NEPA and implementing regulations or each federal department and agency responsible for antenna siting; and

- Compliance with the FCC guidelines for radiofrequency exposure.

When looking at siting requests, the GSA bulletin requires the following:

- Requests for the use of property, rights-of-way, and easements by duly authorized telecommunication service providers should be granted unless there are unavoidable conflicts with the department's or agency's mission or current or planned use of the property or access to the property. A denial of a siting request based on these criteria should be fully explained in writing.

- Executive departments and agencies shall retain discretion to reject inappropriate siting requests and assure adequate protection of public property.

- All procedures and mechanisms adopted by executive departments and agencies regarding access to federal property should be clear and simple to facilitate the efficient build out of the national wireless communications infrastructure.

- The telecommunications service provider is responsible for any reasonable costs to federal agencies associated with providing access to antenna sites.

Executive departments and agencies will make antenna sites available on a fair, reasonable, and nondiscriminatory basis. Co-location of antennas should be encouraged where there are multiple antenna siting requests for the same location. In cases where this is not feasible and space availability precludes accommodating all antenna siting applicants, competitive procedures may be used.

- The siting of telecommunication service provider antennas should not be given priority over other authorized uses of federal building or lands.

16 USC § 5, Rights of Way and 36 CFR Part 14, Rights of Way

These sections of the United States Code and the Code of Federal Regulations address the management of right-of-way permits on NPS lands. These are revocable permits, and not leases or any other estate or interest in land. These regulations contain terms and conditions for rights-of-way on NPS lands such as:

- Compliance with state and federal laws applicable to the project for which the right-of-way was approved.
- To clear and to keep clear the lands within the right-of-way to the extent and in the manner directed by the Superintendent; and to dispose of all vegetative and other material cut, uprooted, or otherwise accumulated during the construction and maintenance of the project in such manner as to decrease the fire hazard.
- Take soil and resource conservation and protection measures including weed control.
- Build and repair roads, fences, and trails as may be destroyed or injured by construction work and to build and maintain necessary and suitable crossings for all roads and trails that intersect the works constructed, maintained, or operated under the right-of-way.
- Payment to the United States for the full value for all damages to the land or other property arising from the occupancy or use of lands under the right-of-way.

- Upon revocation or termination of the right-of-way permit, unless the requirement is waived in writing, so far as it is reasonably possible to do so, restore the land to its original condition to the entire satisfaction of the Superintendent.
- The allowance of the right-of-way shall be subject to the express condition that it will not unduly interfere with the management and administration of these lands by the United States.

NPS Management Policies 2006

This is the basic NPS-wide policy document, adherence to which is mandatory unless specifically waived or modified by the NPS Director or certain Departmental officials, including the Secretary. Several sections from the NPS Management Policies (2006) (NPS 2006) are particularly relevant to processing applications for wireless telecommunications facilities. Some of these provisions that are contained in the following NPS policy documents echo those contained in the Telecommunications Act of 1996, the 1995 Presidential Memorandum, and the GSA-issued government-wide procedures. Actions under this EA are in part guided by Section 8.6.4.3 of the NPS Management Policies 2006, which directs parks to consider requests to site non-NPS telecommunication facilities on NPS lands in accordance with the Telecommunications Act of 1996. The policy notes that this act authorized, but does not mandate a presumption that such requests will be granted absent an unavoidable conflict with the agency mission, or the current or planned use of the property or access to that property (This presumption is instead contained in the government wide procedures). The NPS policies require that: Superintendents will accept an application for a telecommunication site only from a FCC licensee or from an agency regulated by the Department of Commerce through the National Telecommunications and Information Administration.

- The manner in which the park will manage the technology and related facilities should be addressed in an appropriate NEPA document.
- When considering whether to approve, deny, or renew permits, the Superintendent will:
 - Hold preliminary meetings with telecommunication facility applicants to discuss pending applications and policy and procedural issues (such as the application process, impact analysis, estimated cost recovery charges and fees) and other NPS concerns. Similar meetings should be held during the decision-making process, as necessary, particularly if the superintendent is considering denying the application;
 - Conduct NEPA analysis expeditiously and consistent with all applicable statutes and Director's Order #12, and within timetables established pursuant to Director's Order #53;
 - Consider the potential benefit of having telephone access to emergency law enforcement and public safety services; and
 - Consider whether the proposal would cause unavoidable conflict with the park's mission, in which case the permit will be denied.
- Superintendents will evaluate the entire footprint of the new facilities when considering applications (e.g., all utilities related to the facility).
- Superintendents will avoid or minimize potential impacts of current and future telecommunication facilities by ensuring that the facilities and their supporting infrastructure:
 - Are located where they would have the least impact on park resources and values;
 - Are not located in the scenic, historic, and/or sensitive areas integral to the park's mission; and
 - Include maximum potential for future co-location.
- Superintendents will require the best technology available.

- Superintendents should consider making use of available interpretive media to caution park users of the limited or nonexistent cellular service and their personal responsibility to plan accordingly.
- When construction of telecommunication facilities on non-park land might adversely impact park resources and values, superintendents will actively participate in the applicable planning and regulatory process and seek to prevent or mitigate the adverse impacts.

NPS Director's Order #53 (2000)

This director's order, entitled Special Park Uses, establishes that a special park use is a short-term activity that takes place in a park area and (1) provides a benefit to an individual, group or organization, rather than the public at large; (2) requires written authorization and some degree of management control from the NPS in order to protect park resources and the public interest; (3) is not prohibited by law or regulation; and (4) is neither initiated, sponsored, nor conducted by the NPS. In relation to applications for WTF in NPS park units, Director's Order #53 directs the NPS to comply with the Telecommunications Act of 1996 as follows:

- Encourage preliminary meetings with telecommunications industry companies [PCS providers] who wish to discuss pending or proposed applications for sites in the park to explain park concerns and understand industry timeframes.
- Encourage meetings with the applicants during the post application decision process as necessary, but especially if the manager is considering denying the application. Such meetings should take place prior to written notification of denial.
- Consider the safety of the visiting public when reviewing telecommunications site applications, including the potential benefit of having telephone access to emergency law enforcement and public safety services.
- Ensure that, when an application is submitted, the park replies in writing within 10 business days with an initial response on the application, and that response will be 'yes' (probably a known categorical exclusion requiring very minor additional information to be submitted), 'no' (with reasons in writing), or 'maybe' (with additional information to be submitted).
- Ensure that, to the extent possible, the timeline and detailed steps enumerated in RM-53 are followed and the permit is issued or denied.
- Ensure that compliance actions and reviews will be conducted expeditiously and consistent with all applicable statutes.

The NPS general authority to issue right-of-way permits for uses such as WTF is found in 16 USC § 5, and NPS regulations at 36 CFR Part 14. RM-53 provides the NPS process for consideration and placement of these facilities on park land.

U.S. Fish and Wildlife Service Guidelines on Siting Telecommunications Facilities (2000)

These guidelines, released by the USFWS in 2000, address the potential for significant impacts on migratory birds from the construction of WTF. The USFWS guidelines are applicable to the review of proposed tower siting and/or the evaluation of towers on migratory birds. Although drafted by the USFWS, the following guidelines are also considered in NPS decisions on WTF right-of-way permits. These guidelines include:

1. Encourage co-location where possible.
2. If co-location is not feasible and a new tower or towers are to be constructed, communications service providers should be strongly encouraged to construct towers no more than 199 feet above ground level (AGL), using construction techniques which do not require guy wires (e.g., use a lattice structure, self-

supporting steel structure, etc.). Such towers should be unlighted if Federal Aviation Administration (FAA) regulations permit.

3. If constructing multiple towers, providers should consider the cumulative impacts of all of those towers to migratory birds and threatened and endangered species as well as the impacts of each individual tower.
4. If at all possible, new towers should be sited within existing "antenna farms" (clusters of towers). Towers should not be sited in or near wetlands, other known bird concentration areas (e.g., state or federal refuges, staging areas, and rookeries) in known migratory or daily movement flyways, or in habitat of threatened or endangered species. Towers should not be sited in areas with a high incidence of fog, mist, and low ceilings.
5. If taller towers (greater than 199 feet AGL) requiring lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used. Unless otherwise required by the FAA, only white (preferable) or red strobe lights should be used at night, and these should be the minimum number, minimum intensity, and minimum number of flashes per minute (longest duration between flashes) allowable by the FAA. The use of solid red or pulsating red warning lights at night should be avoided. Current research indicates that solid or pulsating (beacon) red lights attract night-migrating birds at a much higher rate than white strobe lights. Red strobe lights have not yet been studied.
6. Tower designs using guy wires for support which are proposed to be located in known raptor or waterbird concentration areas or daily movement routes, or in major diurnal migratory bird movement routes or stopover sites, should have daytime visual markers on the wires to prevent collisions by these diurnally moving species.
7. Towers and associated facilities should be sited, designed 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. Road access and fencing should be minimized to reduce or prevent habitat fragmentation and disturbance, and to reduce above ground obstacles to birds in flight.
8. If significant numbers of breeding, feeding, or roosting birds are known to habitually use the proposed tower construction area, relocation to an alternative site should be recommended. If this is not an option, seasonal restrictions on construction may be advisable in order to avoid disturbance during periods of high bird activity.
9. New towers should structurally and electrically accommodate the applicant/licensee's antennas and comparable antennas for at least two additional users (minimum of three users for each tower structure), unless this design would require the addition of lights or guy wires to an otherwise unlighted and/or unguyed tower.
10. Security lighting for on-ground facilities and equipment should be down-shielded to keep light within the boundaries of the site.
11. If tower is constructed or proposed for construction, service personnel or researchers from the Communications Tower Working Group should be allowed access to the site to evaluate bird use.
12. Towers no longer in use or determined to be obsolete should be removed within 12 months of cessation of use.

Other Applicable Federal Laws, Executive Orders, Regulations and Policies

The NPS is also required to comply with the following laws, executive orders, regulations, and policies in developing this WTF plan/EA.

Endangered Species Act of 1973, as Amended

This act requires all federal agencies to consult with the Secretary of the Interior on all projects and proposals with the potential to impact federally endangered or threatened plants and animals.

Executive Order #13186 - Responsibilities of Federal Agencies to Protect Migratory Birds (2001)

Migratory birds are of great ecological and economic value to this country and to other countries. They contribute to biological diversity and bring tremendous enjoyment to millions of Americans who study, watch, feed, or hunt these birds throughout the United States and other countries. The United States has recognized the critical importance of this shared resource by ratifying international, bilateral conventions for the conservation of migratory birds. Such conventions include the Convention for the Protection of Migratory Birds with Great Britain on behalf of Canada 1916, the Convention for the Protection of Migratory Birds and Game Mammals-Mexico 1936, the Convention for the Protection of Birds and Their Environment-Japan 1972, and the Convention for the Conservation of Migratory Birds and Their Environment-Union of Soviet Socialist Republics 1978. These migratory bird conventions impose substantive obligations on the United States for the conservation of migratory birds and their habitats, and through the Migratory Bird Treaty Act, the United States has implemented these migratory bird conventions with respect to the United States. This executive order directs executive departments and agencies to take certain actions to further implement the act. The EA will consider this executive order and the potential impacts of the alternatives to migratory birds.

National Historic Preservation Act of 1966, as Amended

Section 106 of this act requires federal agencies to consider the effects of their undertakings on properties listed or potentially eligible for listing on the National Register. All actions affecting the park's cultural resources must comply with this law, which is implemented through 36 CFR Part 800.

Qualities of historic properties, such as historic structures and cultural landscapes, which contribute to their listing or eligibility are protected in accordance with the Secretary of the Interior's standards unless it is determined through formal processes that disturbance or natural deterioration is unavoidable.