

## **FINDING OF NO SIGNIFICANT IMPACT**

### **Whiskey Creek Ranger Station Communication Link**

#### **Whiskeytown National Recreation Area**

#### **National Park Service**

**August 2012**

### **PURPOSE AND NEED FOR FEDERAL ACTION**

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, 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.

### **ALTERNATIVES**

The environmental assessment (EA) analyzed the proposed action and no-action alternative and their potential impacts on the environment.

### **Selected Action**

The selected action is the proposed action alternative (alternative B), as evaluated in the EA. There were no substantive public or agency comments on the environmental assessment, though as a result of research conducted to address a public comment concerning tower height, park staff made a minor modification of the selected action. In order to protect the antenna and towers from damage in extreme wind events, the park may secure the towers with up to 6 guy wires. This modification does not alter the determination of environmental consequences presented in the environmental assessment. The selected action meets the purpose and need for action by providing high-speed data capabilities to support Ranger operations. This action also meets park planning objectives by providing improved efficiency of law enforcement operations and will contribute to safe visitor experience/emergency response.

### **General Description of the Work**

The selected action consists of construction of one microwave tower at Park Headquarters and another at the Whiskey Creek Ranger Station. The Park Headquarters tower will be placed within the maintenance yard, adjacent to the primary maintenance building. The Whiskey Creek site is located approximately 15 meters west of the Whiskey Creek Ranger Station. Details about the tower construction and communications equipment to be utilized are as follows:

**Towers** - The proposed towers are 30 foot tall metal towers. Each tower will 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. 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.

**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 will be strung or placed in conduit and is similar in appearance to a standard residential telephone cable.

**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 the park.

## **OTHER ALTERNATIVES CONSIDERED**

In the EA, only two alternatives were fully analyzed. In addition to the proposed action described above, a no action alternative was also considered. Under the no action 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 was 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.

Park staff also considered additional alternatives for project implementation that were ultimately dismissed from further analysis in the EA. 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, provide any significant reduction in exposure to microwave radiation, or reduce overall project costs related to any potential build-up of non-NPS owned adjacent structures requiring a future increase in tower height.

## **ENVIRONMENTALLY PREFERRED ALTERNATIVE**

The environmentally preferred alternative is determined by applying criteria identified in section 101 of the National Environmental Policy Act of 1969, as amended (NEPA), to each alternative considered. In accordance with NEPA, the environmentally preferred alternative will:

- fulfill the responsibility of each generation as trustee of the environment for succeeding generations
- assure for all generations a safe, healthful, productive, and aesthetically and culturally pleasing surrounding
- attain the widest range of beneficial uses of the environment without degradation 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
- enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources (NEPA, section 101)

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.

## MITIGATION

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

- The tower and exterior antenna surfaces will be painted with a non-reflective paint in a color ("Hunter Green" or similar) 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.
- There are no specific fire related mitigations since the towers are protected in administrative areas where defensible space is maintained.
- 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.

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

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

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

The primary impact topics identified in the environmental analysis and documented in the environmental assessment included the following: Air Quality, Soundscapes, National Recreation Area Operations, Viewsheds and Visitor Experience and Health and Safety. Impacts to these resources were identified at the negligible to minor level.

**Degree of effect on public health or safety:** The selected action will have a negligible long-term beneficial impact on the health and safety of visitors and employees at the NRA because the construction of the microwave towers will allow the Whiskey Creek Ranger Station would be fully utilized by ranger staff. The Whiskey Creek Ranger Station will serve as the east side operations center for park rangers, and will 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 will not contribute to any additional radiofrequency electromagnetic field exposure to visitors or park staff. Transmission energy from the dishes are confined to a tight beam emitted at the elevation of the dishes. With the dishes mounted at least 25 feet above ground, the transmission beams will 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.

**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:** As described in the environmental assessment, historic structures, ethnographic resources, cultural resources, archeological resources, prime and unique farmlands, water resources, wetlands, floodplains, ecologically critical areas, and other unique natural areas will not be affected. The actions proposed will add minor infrastructure to administrative areas that have already been disturbed by prior development.

**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:** As described in the environmental assessment, significant scientific or designated cultural and historic resources will not be affected.

**Degree to which effects on the quality of the human environment are likely to be highly controversial:** There were no highly controversial effects identified during either preparation of the environmental assessment or the public review period.

**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, unique, or unknown risks identified during either preparation of the environmental assessment or the public review period.

**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:** The selected action neither establishes a NPS precedent for future actions with significant effects nor represents a decision in principle about a future consideration.

**Whether the action is related to other actions with individually insignificant, but cumulatively significant, impacts:** The selected action of the environmental assessment analyzed impacts to air quality, soundscapes, National Recreation Area operations, viewsheds and visitor experience, and health and safety. As described in the environmental assessment, cumulative impacts were determined by combining the impacts of the preferred alternative with other past, present, and reasonably foreseeable future actions. There are no projected future actions that will contribute to cumulative effects.

**Degree of effect on soils; biological resources; and threatened, endangered, and species of special concern; coastal and marine resources; or water quality:** The proposed action will have no effect on soils; biological resources; threatened, endangered, or special concern species; coastal and marine resources; or water quality. The above impact topics relevant to the project area were addressed in the environmental assessment.

**Whether the action threatens a violation of federal, state, or local environmental protection laws:** The selected action violates no federal, state, or local environmental protection laws.

## **PUBLIC INVOLVEMENT AND AGENCY CONSULTATION**

### **Scoping**

A press release initiating public scoping and describing the proposed action was issued on February 15, 2012. 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 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. They did not respond with any concerns.

Whiskeytown National Recreation Area (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.

## **PUBLIC COMMENT ON ENVIRONMENTAL ASSESSMENT**

This environmental assessment/assessment of effect was available for formal public and agency review for a 30-day review period from July 9 through August 8, 2011, and printed copies or links to the online document were sent to the Redding Rancheria and a park neighbor. The review period was publicized in the local newspaper, The Redding Searchlight, which announced the Environmental Assessment on July 13, 2012.

The environmental assessment was available on the Internet at <http://parkplanning.nps.gov/whis> and hard copies were made available at the Whiskeytown visitor center, park headquarters, and local libraries in Anderson and Redding.

Whiskeytown National Recreation Area received two pieces of correspondence during the review period. The first commenter included the suggestion that since the proposed actions in this environmental assessment have little or no impact, the document was unreasonably complex, long and expensive to develop. The second commenter inquired about antenna look, placement, and orientation; and tower height at the Whiskey Creek Ranger Station.

All comments were nonsubstantive in nature. Substantive comments are those that:

- question, with reasonable basis, the accuracy of the information in the environmental assessment
- question, with reasonable basis, the adequacy of the environmental analyses
- present reasonable alternatives or key elements of alternatives other than those presented in the environmental assessment
- provide information that could lead to changes or revisions in the proposal


The questions posed by the commenter about tower height changes to accommodate second story additions to near-by houses prompted park staff to investigate the future placement of guy wires to support a taller tower. No additions are currently proposed and any changes in tower height would require further environmental analysis. In the environmental assessment, the proposed action does not call for the use of guy wires. After further discussion with tower engineers, it was recommended that park staff consider adding guy wires or other reinforcement support to the towers at the current height of 30 feet in order to prevent tower failure in the event of a 50 or 100 year wind event. As a result, the park may add guy wires to each tower, should other structural reinforcements not be possible. While the addition of guy wires to the tower structure is a slight modification to the proposal, the presence of guy wires will have no additional impacts to park resources or values.

## CONCLUSION

The selected action does not constitute an action that normally requires preparation of an environmental impact statement. The selected action will not have a major impact on the human environment. Negative environmental impacts that could occur are considered short term and negligible to minor in intensity, and long term and negligible to minor in intensity. Beneficial environmental impacts that could occur are considered long term and negligible to minor in intensity. Mitigation measures will be incorporated into the selected action (preferred alternative) to ensure there are no significant impacts. There are no foreseen significant adverse impacts on natural or cultural resources, public health and safety, NRA management, or other unique characteristics of the area and region. Long-term negligible to minor beneficial impacts to NRA operations and visitor health and safety will result from the selected action. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the selected action will not violate any federal, state, or local environmental protection laws.

Based on the foregoing, it has been determined that an environmental impact statement is not required for this project and, thus, will not be prepared.

Recommended:

 8-29-12  
\_\_\_\_\_  
Jim Milestone, Superintendent Whiskeytown NRA Date

Approved:

for  8/30/12  
\_\_\_\_\_  
Christine S. Lehnertz, Pacific West Regional Director Date



# Attachment 1

## DETERMINATION OF NON -IMPAIRMENT

### WHISKEY CREEK RANGER STATION COMMUNICATIONS LINK

While Congress has given the National Park Service (NPS) management discretion to allow impacts within parks, that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the NPS must leave park resources and values unimpaired unless a particular law directly and specifically provides otherwise. This cornerstone of the Organic Act establishes the primary responsibility of the NPS, to ensure that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.

The impairment of park resources and values may not be allowed by the NPS unless directly and specifically provided for by legislation or by the proclamation establishing the park. The relevant legislation or proclamation must provide explicitly (not by implication or inference) for the activity, in terms that keep the Service from having the authority to manage the activity so as to avoid the impairment.

The impairment that is prohibited by the Organic Act and the General Authorities Act is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. Whether an impact meets this definition depends on the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts.

An impact to any park resource or value may, but does not necessarily, constitute impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- identified in the park's general management plan or other relevant NPS planning documents as being of significance.

An impact would be less likely to constitute impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values and it cannot be further mitigated. An impact that may, but would not necessarily, lead to impairment may result from visitor activities; NPS administrative activities; or activities undertaken by concessioners, contractors, and others operating in the park. Impairment may also result from sources or activities outside the park.

National Park Service's *Management Policies 2006* requires analysis of potential effects to determine whether or not actions would impair park resources. The park resources and values that are subject to the no-impairment standard include:

- the parks scenery, natural and historic objects, and wildlife, and the processes and conditions that sustain them, including, to the extent present in the park: the ecological, biological, and physical processes that created the park and continue to act upon it; scenic features; natural visibility, both in daytime and at night; natural landscapes; natural soundscapes and smells; water and air resources; soils; geological resources; paleontological resources; archeological resources; cultural landscapes;

ethnographic resources; historic and prehistoric sites, structures, and objects; museum collections; and native plants and animals;

- appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them;
- the parks role in contributing to the national dignity, the high public value and integrity, and the superlative environmental quality of the national park system, and the benefit and inspiration provided to the American people by the national park system; and
- any additional attributes encompassed by the specific values and purposes for which the park was established.

Based on the parks enabling legislation of November 8, 1965 the purposes of the Whiskeytown-Shasta-Trinity National Recreation Area are to:

- to provide, in a manner coordinated with the other purposes of the Central Valley project, for the public outdoor recreation use and enjoyment of the Whiskeytown, Shasta, Clair Engle, and Lewiston reservoirs and surrounding lands in the State of California by present and future generations, and
- the conservation of scenic, scientific, historic, and other values contributing to public enjoyment of such lands and waters.

Based on the requirements of the 1916 Organic Act, and in consideration of the Whiskeytown National Recreation Area GMP, topics from the EA that were evaluated for potential impairment due to implementing the Selected Action include Air Quality, Soundscapes and Viewsheds. Non-resource topics such as National Recreation Area operations, visitor experience, or health and safety are not subject to impairment determinations.

## **NATURAL RESOURCE TOPICS**

### **Air Quality**

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.

Under the Selected Action, 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 the overall park air quality as the construction will be extremely localized. The Selected Action does not result in impairment of air quality because impacts are avoided or reduced by mitigation measures and are localized and temporary.

### **Soundscapes**

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.

Under the Selected Action, 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. The Selected Action does not result in impairment of soundscapes because impacts are localized and temporary.

### **Viewsheds**

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. The Selected Action will not result in impairment of park viewsheds because the impacts are minor and mitigation measures would be implemented to avoid and reduce impacts.

### **SUMMARY**

As described above, adverse effects and environmental impacts anticipated as a result of implementing the Selected Action on a resource or value whose conservation is necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or identified as significant in the park's general management plan or other relevant NPS planning documents, would not rise to levels that would constitute impairment of park values and resources.