



National Park Service
U.S. Department of the Interior

Bryce Canyon National Park
Utah

FINDING OF NO SIGNIFICANT IMPACT
Cellular Telecommunications Tower with
Power and Fiber Optic Connection

Recommended:

Linda Mazzu
Superintendent, Bryce Canyon National Park

6-1-20

Date

Approved:

Regional Director, National Park Service Regional Office
Serving Department of Interior Regions 6, 7, and 8

Date

INTRODUCTION

In compliance with the National Environmental Policy Act (NEPA), the National Park Service (NPS) prepared an Environmental Assessment (EA) to examine alternative actions and environmental impacts associated with the issuance of separate right-of-way permits to Verizon Wireless, South Central Utah Telephone Association (SCUTA) and Garkane Energy Cooperative (Garkane) for the installation of a cellular telecommunications tower, fiber optic utility, and electric utility rights-of-way, respectively.

The statements and conclusions reached in this finding of no significant impact (FONSI) are based on documentation and analysis provided in the EA and associated decision file. To the extent necessary, relevant sections of the EA are incorporated by reference below.

SELECTED ALTERNATIVE AND RATIONALE FOR THE DECISION

Based on the analysis presented in the EA, NPS selected Alternative B – New Tower at Science Hill with a tower height of 60 feet and self-support tower design (the NPS preferred alternative).

The selected alternative will provide improved cellular service to park visitors and staff in the developed areas of the park where the greatest density of visitors and staff are typically present. The cellular telecommunications service will include voice and data capabilities using long-term evolution (LTE) technology. The tower will be located within an approximately 22-foot by 52-foot (1,144 square-foot) fenced compound that will also include equipment cabinets with a canopy and an external diesel backup generator on an approximately 13-foot by 14-foot concrete pad. There will be no lights on the tower as no FAA obstruction lighting will be required. Lighting may be installed within the fenced compound for technicians working on the equipment cabinets or generator. Additionally, an approximately 12-foot by 60-foot gravel access route will be installed on the north side of the fenced compound, and approximately 2,000 feet of new buried fiber optic utility line will be installed along the center of the existing Science Hill gravel access drive between the tower site and the upgraded fiber optic utility near the access drive entrance off Highway 63 within a 10-foot wide right-of-way. Power is currently available from Garkane on Science Hill, and an approximately 60-foot buried electrical utility line will be installed within a 10-foot right-of-way from an existing transformer to the tower site. Revegetation and recontouring of disturbed areas will take place following construction in accordance with BRCA and NPS policy.

Rationale

In accordance with the Telecommunications Act of 1996 (47 USC 332 note), NPS has reviewed the right-of-way application from Verizon Wireless to construct a telecommunications tower in Bryce Canyon National Park and the associated required rights-of-way for fiber optic and electrical utilities from SCUTA and Garkane. Upon completing this review, including an environmental assessment prepared pursuant to NEPA, the NPS has selected Alternative B for implementation.

Alternative B was selected because it would place new telecommunications infrastructure in an area where other infrastructure already exists to support park operations. As a result, this alternative would provide improved cellular coverage to both visitors and staff without having to place new infrastructure in undisturbed areas or within cultural landscapes and historic properties (as would have occurred under Alternative C). In addition, this alternative has less impact on vegetation compared to alternative C, while impacts on other resources (e.g., visitor

use and experience, visual and scenic resources, and recommended wilderness) would largely be similar.

To ensure solitude and primitive and unconfined recreation are not impacted, the tower antennas will be directed away from recommended wilderness to minimize the extent of new cellular signals entering this portion of the park.

To ensure visual and scenic resources are not impacted, the tower will be designed and sited to minimize effects on historic properties and visual and scenic resources. As described in Appendix A, this includes ensuring new construction elements complement the design, materials, and physical appearance of existing features within cultural landscapes and historic districts. It also includes minimizing tree removal and native vegetation disturbance to reduce impacts on the views of the project area from historic properties, as well as impacts on the views of historic properties from the project area.

The NPS has determined that the long-term health, safety, and communication benefits associated with enhanced communications, including the benefits to visitor and employee safety through facilitation of emergency or non-emergency reporting and response, outweighs the disruption some visitors may experience in response to other visitors' use of cell phones in public spaces. While some may view cell phone service as an unwelcomed intrusion in the park, others will have the opportunity to increase their use of cellular devices for trip planning, route finding, communication within their travel group, emergency services, or for park information services (e.g., via electronic educational and interpretive media). Bryce Canyon National Park's position is that improved cellular service will provide opportunities to more easily and quickly communicate park conditions to visitors, including real time information on parking, traffic, weather, and hazardous conditions. Improved cellular service will also assist the park in providing educational and interpretive materials to park visitors, information about events and activities, maps, and other services, which could enhance the visitor experience and help protect park resources. The increased network capacity will allow the park to collect more accurate data, which will benefit visitor use management and experience. The selected action will also enhance Verizon's cellular network which serves approximately 35% of all U.S. wireless subscribers. While other visitors may view cell phone service as an unwelcome intrusion, the NPS is committed to a public education program to promote considerate use of cell phones in shared public facilities and spaces.

As a result, the NPS believes the selected alternative will benefit the public and NPS by improving communication among visitors, and between visitors and the NPS, while minimizing impacts to other park resources and values. Therefore, the NPS determined that the selected alternative will not cause conflict with the park's mission, and providing improved cellular service is consistent with the purpose and values for which the park was established.

MITIGATION MEASURES

The selected alternative incorporates the mitigation measures listed in Appendix A of this document.

FINDING OF NO SIGNIFICANT IMPACT

CEQ regulations at 40 CFR Section 1508.27 identify ten criteria for determining whether the Selected Action will have a significant effect on the human environment. The NPS reviewed

each of these criteria given the environmental impacts described in the EA and determined that there will be no significant direct, indirect, or cumulative impacts under any of the criteria.

The following impact topics were dismissed from full analysis in the EA and are not discussed in this FONSI: air quality, archaeological resources, environmental justice, ethnographic resources and Indian sacred sites, human health and safety, migratory birds, night sky, soundscape, and special status species. As described in the EA, the selected alternative has the potential for adverse impacts on historic properties, vegetation, visitor use and experience, visual and scenic resources, and recommended wilderness.

There will be no significant impacts on unique characteristics of the region and no highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the NPS selected alternative will not violate any federal, state or local environmental protection law.

On October 11, 2017 Bryce Canyon National Park initiated Section 106 consultation with the Utah State Historic Preservation Office (SHPO) during scoping efforts for the proposed Verizon Wireless cellular tower EA. On June 19, 2019 the park received a letter of concurrence on our determinations of eligibility regarding historic properties and our finding of No Adverse Effect for the undertaking as related to the EA.

Similarly, in October 2017, the park initiated Tribal consultation on this project with all 21 tribes affiliated with Bryce Canyon National Park. The Southern Ute Indian Tribe had comments during scoping, which the park responded to. On November 18, 2019, the park sent letters to all 21 Tribes requesting concurrence on No Adverse Effect for this project EA. No response was received. On December 18, 2019 the park followed up on Tribal consultation with phone calls to each Tribe. No comments were received on the EA by any of the 21 affiliated Tribes.

Specific impacts on the topics that were fully analyzed in the EA are summarized below.

Historic Properties

Eight Historic Properties were identified that could potentially be affected by Alternative B: Bryce Canyon Lodge Historic District, Old NPS Housing Historic District, Bryce Canyon National Park Scenic Trails Historic District, Bryce Inn, Loop C Comfort Station, Loop D Comfort Station, Old Administrative Building, and the Utah Parks Company Service Station. None of the identified historic properties will be directly impacted by Alternative B. Except for the Bryce Canyon National Park Scenic Trail Historic District (The Rim Trail), the historic properties listed above are more than 1,800 feet (0.34 mile) north of the Alternative B tower site. The tower will either not be visible or will be heavily screened in the views of the properties or from the properties. The tower is expected to be visible intermittently along approximately 3,155 feet (0.6 mile) of the 11,773-foot (2.2-mile) segment of the Bryce Canyon National Park Scenic Trails Historic District Rim Trail from Sunrise Point to Bryce Point, or approximately 27% of this portion of the trail. It is also expected to be visible intermittently along approximately 320 feet of the northwestern portion of the 1.8-mile Queen's Garden Trail immediately below Sunrise Point. At its nearest point, the tower will be roughly 835 feet west of the Rim Trail. The tower will be partially or heavily screened from view by intervening tree cover in views from the Bryce Canyon National Park Scenic Trails Historic District and will not substantially diminish the integrity of setting for the historic property. The Bryce Canyon Scenic Trails Historic District will remain listed on the National Register of Historic Places.

Previous construction of a 70-foot guyed radio tower, 50-foot self-support radio tower, and two approximately 25-foot tall water tanks on Science Hill have negatively impacted the historic setting of the Bryce Canyon National Park Scenic Trail Historic District. When the effects of Alternative B are combined with other past, present, and reasonably foreseeable future impacts, the total cumulative impact on the Bryce Canyon National Park Scenic Trail Historic District will continue to be adverse. The incremental impacts of Alternative B will contribute slightly to, but will not substantially change, the impacts that are already occurring.

Vegetation

The majority of the 0.6-acre project area (the fenced tower area, the power and fiber optic utilities, and construction work areas) lies within an existing gravel access road. About 0.1 acre of the project area is vegetated, and construction will result in a permanent loss of approximately 900 square feet of vegetation. Minimal tree removal may also be required possibly including one large (16 inch diameter at breast height) ponderosa pine and / or fewer than 5 smaller (up to 4 inches dbh) ponderosa pine or juniper trees. Trampling during construction will also damage an area of up to 3,300 square feet (0.08 acre) but will be revegetated by seeding and/or planting with native grasses and forbs, as described in Appendix A: Mitigation Measures. Impacted species are relatively common to BRCA, and the site location avoids sensitive bristlecone pine habitat.

Approximately 3 acres of vegetation was removed from Science Hill for construction of the existing water tanks, radio towers, and access roads. These actions have had, and will continue to have, adverse effects on vegetation. When the effects of Alternative B are combined with other past, present, and reasonably foreseeable future impacts, the total cumulative impact on vegetation will continue to be adverse. The incremental impacts of Alternative B will contribute slightly to, but will not substantially change, the impacts that are already occurring.

Visitor Use and Experience

Under Alternative B, the tower will improve cellular service, increasing network capacity in developed areas. This is expected to result in fewer dropped calls and faster data speeds during periods of high visitation. As a result of increased cellular service availability, visitors may increase their use of cellular devices for route finding, information (via electronic educational and interpretive media), and communication within their travel group, for emergency services, or for park information services (interpreters, rangers). The increased network capacity also will allow the park to collect more accurate data, which will benefit visitor use management and experience. For those visitors who feel cellular service detracts from their park experience, increased cellular service could adversely impact their visit. It is unlikely, however, that these visitors will be displaced from the park as a result of these impacts. For visitors who feel cellular service enhances their park experience, impacts would be beneficial. Benefits will only be realized by Verizon Wireless subscribers, who account for approximately 35 percent of U.S. wireless subscribers; but negative impacts may be experienced by any visitor.

Collectively, the current cellular service in developed areas, the Shuttle Tracker app, and the proposed enhanced and expanded wi-fi internet availability in the park have both adverse and beneficial impacts on visitor use and experience depending on the perception of the visitor regarding technology and cellular device use within the park. When the effects of Alternative B are combined with other past, present, and reasonably foreseeable future impacts, the total cumulative impact on visitor use and experience will continue to be both adverse and beneficial

depending on visitor perception. The incremental impacts of Alternative B will contribute to, but not substantially change, the impacts that are already occurring.

Visual and Scenic Resources

All or part of 24 key observation points (KOPs) are within the 1-mile study area for Alternative B. From 13 of the 24 KOPs, Alternative B will either not be visible or will not be seen by the casual observer because of heavy screening from intervening vegetation and topography. The few visitors who do see it will likely be those who are aware of it in advance and are actively looking for it. Alternative B will be visible from the other 11 KOPs. From these locations the tower will generally appear to be a similar height as nearby trees without protruding above the horizon and most of the lower portion of the structure will be obscured by topography and vegetation in views that include geologic scenery as well as along roads. The degree of visibility will depend on the proximity of the KOP to the tower. From more distant locations, the tower will not compete with major landscape elements because it lacks sufficient contrast and/or will occupy a small part of the field of view. From closer locations the tower's man-made appearance will clearly contrast with the natural setting but will not strongly attract attention because it will still occupy a small part of the field of view. The lattice design is more industrial looking than the monopine option and, therefore, better blends in with the existing developments at Science Hill where trees have been cleared and metal towers and water tanks exist. The lattice tower also will be less noticeable than the monopine design because its size will be smaller in the field of view than a monopine. In general, the impact to the visual experience of the scenic resources in the park for those few viewers that notice the tower will depend on the perceptions of each individual but generally is expected to be slightly negative or neutral.

Previous construction of a 70-foot guyed radio tower, 50-foot self-support radio tower, and two approximately 25-foot tall water tanks on Science Hill have had, and will continue to have, adverse impacts on visual and scenic resources. When the effects of Alternative B are combined with other past, present, and reasonably foreseeable future impacts, the total cumulative impact on the visual and scenic resources will continue to be adverse. The incremental impacts of Alternative B will contribute slightly to, but will not substantially change, the impacts that are already occurring.

Recommended Wilderness

Alternative B will not be located within recommended wilderness. The tower at Alternative B will have antennas pointed to the north, south, and west. No antennas will point east toward the nearest recommended wilderness area. New moderate strength signal coverage is expected at two small, remote locations in recommended wilderness where no established trails are present. The geographic scale of the affected area, as well as the magnitude of the increase in cellular signal strength, will be small compared to the aerial extent and magnitude of cellular signals already present in the recommended wilderness areas. For these reasons, noise from cellular use is not expected to change and Alternative B will not impact the natural quality of wilderness.

Previous construction of telecommunications towers at Wilson Peak, Henderson Point, and Tropic have had, and will continue to have, adverse impacts on recommended wilderness areas. When the effects of Alternative B are combined with other past, present, and reasonably foreseeable future impacts, the total cumulative impact on the recommended wilderness areas will continue to be adverse. The incremental impacts of Alternative B will contribute slightly to, but will not substantially change, the impacts that are already occurring

CONCLUSION

The selected alternative does not constitute an action that normally requires preparation of an environmental impact statement (EIS) (see Section 1.5.E of the NPS NEPA Handbook). And as described above, the selected alternative will not have a significant effect on the human environment in accordance with Section 102(2)(c) of NEPA.

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

LIST OF APPENDICES

- Appendix A: Mitigation Measures
- Appendix B: Errata on the Environmental Assessment for Cellular Telecommunications Tower with Power and Fiber Optic Connection
- Appendix C: NPS Response to Public Comments
- Appendix D: Non-Impairment Determination

APPENDIX A: MITIGATION MEASURES

The following mitigation measures will minimize the degree and/or extent of adverse impacts of the action and will be implemented during project construction and operation.

Air Quality

- Equipment will not be allowed to idle longer than 2 minutes when not in use.
- All motor vehicles and equipment will have mufflers conforming to original manufacturers' specification that are in good working order and are in constant operation to prevent excessive or unusual fumes or smoke.
- Fugitive dust generated by construction will be controlled by spraying water on the construction site.

Archeological Resources

- All contractors and subcontractors will be informed of the procedures should previously unknown cultural resources be uncovered during construction activities, as well as the penalties for illegally collecting artifacts or intentionally damaging paleontological materials, archeological sites, or historic properties.
- During construction, specifically activities involving earthwork or digging, qualified park staff will monitor work zones to confirm the presence or absence of significant archeological resources. In the event of discovery of unanticipated cultural resources work will halt, and the park will contact the NPS archaeologist to determine next steps needed to protect the resources.
- In the unlikely event that human remains are discovered during construction, all work on the project will stop. As required by law, the coroner will be notified first. All provisions outlined in the Native American Graves Protection and Repatriation Act (1990) will be followed.
- Equipment and materials staging areas will avoid known archeological resources.

Bats and Migratory Birds

- To minimize negative impacts to nesting birds, vegetation removal will not occur during nesting season for any birds protected under the Migratory Bird Treaty Act, generally from April 1 through July 31.
- To minimize negative impacts to maternity roosting bats, tree and snag removal will not occur from April 15 through August 31, unless otherwise approved by the park's wildlife biologist.
- Pre-construction/pre-vegetation removal bird surveys for nests and bat surveys for maternity roosts may be required. No construction activities will be conducted in identified nesting areas or bat maternity roosting areas until the young have fledged.

Historic Properties

- Construction activities occurring close to historic properties will be monitored by qualified park staff to ensure construction activities remain within the approved footprint.
- New construction elements will complement the design, materials, and physical appearance of existing features within cultural landscapes and historic districts. Color and finish treatments may be necessary to ensure that new materials blend with the existing features.
- The extent of tree removal and native vegetation disturbance will be minimized to the extent practicable to reduce impacts on the views of the project area from historic properties, as well as impacts on the views of historic properties from the project area.

- All work will be performed in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for the Treatment of Cultural Landscapes, and the BRCA Old NPS Housing and Bryce Canyon Lodge Cultural Landscape Report.

Human Health and Safety

- The contractor will provide a safety plan to the park prior to commencement of work. The safety plan will demonstrate compliance with OSHA and other applicable safety laws, and will identify contractor points of contact.
- The contractor will provide a traffic management plan for review and approval by the park prior to the commencement of work activities. The plan will address vehicle and pedestrian traffic within the construction zone including: the location of warning signs, type of signs, placement of flaggers, placement of cones/fencing, barricades, duration of anticipated delays, use of pilot cars, etc. All signs will meet NPS standards.
- All project zones will be kept trash-free at all times and construction generated debris will be removed from the park to an approved landfill at intervals to prevent a large build-up of waste material.

Night Sky

- There will be no lights on the tower as no FAA obstruction lighting will be required. Lighting may be installed within the fenced compound for technicians working on the equipment cabinets or generator. The following mitigation measures will apply to any lighting in the fenced compound:
 - New lighting will be compliant with BRCA's Lighting Management Plan to reduce impacts to the night sky and wildlife. This includes, but is not limited to, low-level lighting, minimized glare, downward focused light fixtures, and energy efficient light sources.
 - Hours of outdoor construction will be limited to hours between sunrise and sunset, so no lighting will be needed.
 - Security lighting installed in the equipment compound will be limited to the minimum effective number of lights to allow Verizon Wireless technicians to work on tower equipment after dark. Lighting will also be down-shielded and will only be illuminated when technicians are present.

Soundscapes

- Hours of operation of motorized equipment during construction will be limited to 9:00a.m. to 5:00p.m. to protect dawn, dusk, and nighttime quiet.
- Equipment will not be allowed to idle longer than 2 minutes when not in use.
- All motor vehicles and equipment will have mufflers conforming to original manufacturers' specification that are in good working order and are in constant operation to prevent excessive or unusual noise.

Special Status Species and Wildlife

- Park staff will inform project personnel about special status species and what actions should be taken if a special status species is encountered to protect the species.
- Construction site and staging areas will be monitored by park natural resource staff throughout the duration of the project in case any special status species unexpectedly appear in the project area. Should any appear and if park staff become concerned about potential impacts on the species from construction or other project related activities, work will stop and not resume until necessary protective steps are taken to avoid any impacts to the special status species.

- If trenches will be open for more than one work day, ramps will be installed every 20 to 50 feet to allow for the escape of animals that may fall in, and/or the trench will be covered to prevent animals from falling in and becoming trapped.

Vegetation and Soils

- Construction zones will be identified (e.g. flagging, construction tape, etc.) to confine activity to the minimum work area required. No work will be conducted beyond the marked designated construction area to reduce disturbance to native plants and reduce the potential for the introduction or spread of invasive non-native plant species.
- Construction equipment will be cleaned before entering the park to minimize the transport of exotic seeds to the site. All equipment entering the park will be inspected and may be required to be pressure washed to remove foreign soil, vegetation, and other materials that may contain non-native seeds or vegetation. Any equipment that leaves the park will need to be re-inspected by park staff prior to re-entering.
- Any non-native species occurring in project and staging areas will be treated before and after construction, as well as in the long-term, using species-specific targeted herbicides approved in the park's Vegetation Management Plan.
- Nonnative species encroachment and distribution will be monitored for 2–3 years after construction and action will be taken to prevent the spread of nonnative species if they are identified.
- Vegetation program staff at the park will attempt to salvage plants prior to construction that would otherwise be lost. Salvaged plants may be used to revegetate disturbed areas after construction or transplanted to other areas of the park.
- Revegetation and recontouring of disturbed areas will take place following construction and will be designed to minimize impacts on native vegetation and deter the possible spread of invasive species. Revegetation efforts will strive to reconstruct the natural spacing, abundance and diversity of native plant species found in similar vegetated landscapes of the park.
- All revegetation efforts will use site-adapted native species and / or site-adapted native seed, and park policies regarding revegetation and site restoration will be incorporated. These efforts will consider, among other things, use of native species, plant salvage potential, and non-native vegetation management. Policies related to revegetation will be referenced from the BRCA Vegetation Management Plan (2010d) and NPS Management Policies (2006b).
- Revegetation efforts will be initiated as soon as possible following construction to minimize the competition of native species with non-native species.
- A pre-construction survey for rare plants will be conducted in any areas suspected of containing populations of these species. Areas found to contain rare plants will be marked (e.g. flagging, construction tape, etc.) and avoided. If avoidance is not possible salvage via transplant will be attempted.
- Any fill, rock, or additional topsoil needed will be obtained from a park-approved weed-free source.
- Equipment and construction materials staging areas will be restricted to previously disturbed sites.
- Stockpiled soils and stone material will be covered and silt fencing will be installed in accordance with federal, state, or local erosion and sediment control regulations.
- Because disturbed soils are susceptible to erosion until revegetation takes place, standard erosion control measures such as straw wattles and / or sand bags will be used to minimize any potential soil erosion during and after construction.
- Topsoil will be removed and stockpiled separately from deeper excavations and used to assist native plant revegetation in disturbance areas.

Visitor Use and Experience

- Signs, alerts, press releases, and notifications will be issued to inform visitors prior to and throughout the duration of construction.
- Construction zones will be identified (i.e. flagging, construction tape, fencing, etc.) to prevent visitors from entering construction zones unknowingly.
- Equipment and material staging and storage will be confined to park assigned areas that will include existing disturbed areas along park roadways and within parking areas. Staging areas will be sited away from visitor use areas to the greatest extent possible and will not impede vehicle traffic of visitors, contractors, or park staff.
- To the extent practical, work will be scheduled to avoid construction activity and construction related delays during peak visitation times. No holiday or nighttime construction work will be allowed. Weekend construction work will not be allowed unless authorized by the park.

Recommended Wilderness

- No permanent improvements will be made in recommended wilderness.
- Tower antennas will be directed away from recommended wilderness to minimize the extent of new cellular signals entering recommended wilderness.
- Contractors will be required to maintain construction equipment properly to minimize any noise that may reach recommended wilderness areas.

General Construction Measures

- Any park infrastructure impacted during construction, including but not limited to paved and unpaved roadways, walkways, and turf, shall be restored to pre-construction conditions upon completion of the project as documented in photographs taken of pre- and post-construction conditions.
- The location of all potential utility lines will be field located and marked prior to work to avoid disturbance conflict.
- All equipment used for the project will be maintained in a clean and well-functioning state to avoid or minimize contamination from automotive fluids. All equipment will be checked daily for leaks, and if a leak is found, the equipment will be removed from the site until it is repaired.
- A pre-construction meeting will be held to review all NPS regulations that pertain to the work area and project, and a final inspection meeting will be conducted to review the project before final closeout.

APPENDIX B: ERRATA ON THE ENVIRONMENTAL ASSESSMENT FOR CELLULAR TELECOMMUNICATIONS TOWER WITH POWER AND FIBER OPTIC CONNECTION

This section itemizes clarifications, corrections, and changes made to the Cellular Telecommunications Tower with Power and Fiber Optic Connection Environmental Assessment following publication and public review. The errata should be maintained with all copies of the EA as the complete record of the completed environmental impact analysis. The changes and corrections incorporate responses to public comments received on the EA. Revised or new language is underlined. Deleted text is marked by strikethrough.

Page 3, Impact Topics Dismissed from Further Analysis – Air Quality

Add the following statement regarding the Regional Haze Program to the end of the first paragraph:

BRCA is also protected under the Regional Haze Program, which requires state and federal agencies, including NPS, to develop and implement air quality protection plans to reduce pollution that causes visibility impairment (i.e. haze) (EPA 2017).

Page 9, Alternative B Site Design

Revise the site design description to add the following statement:

There will be no lights on the tower as no FAA obstruction lighting will be required. Lighting may be installed within the fenced compound for technicians working on the equipment cabinets or generator.

Page 14, Alternative C Site Design

Revise the site design description to add the following statement:

There will be no lights on the tower as no FAA obstruction lighting will be required. Lighting may be installed within the fenced compound for technicians working on the equipment cabinets or generator.

Page 19, Air Quality Mitigation Measures

Bullet 3 revised as follows for clarification:

- Fugitive dust generated by construction would be controlled by spraying water on the construction site, ~~if needed~~.

Pages 21-22, Vegetation and Soils Mitigation Measures

Remove statement in bullets 3 and 6 that the park's vegetation program manager will make decisions regarding herbicide use and revegetation as this statement is redundant with the standard practices outlined in the Vegetation Management Plan.

- Any non-native species occurring in project and staging areas would be treated before and after construction, as well as in the long-term, using species-specific targeted herbicides approved in the park's Vegetation Management Plan, ~~as deemed necessary by the park's vegetation program manager~~.
- Revegetation and recontouring of disturbed areas would take place following construction, ~~as deemed necessary by the park's vegetation program manager~~, and would be designed to

minimize impacts on native vegetation and deter the possible spread of invasive species. Revegetation efforts would strive to reconstruct the natural spacing, abundance and diversity of native plant species found in similar vegetated landscapes of the park.

Bullets 9 and 12 revised as follows for clarification:

- A pre-construction survey for rare plants would be conducted in any areas suspected of containing populations of these species. Areas found to contain rare plants would be marked (e.g. flagging, construction tape, etc.) and avoided. If avoidance is not possible salvage via transplant would be ~~attempted-conducted if feasible~~.
- Stockpiled soils and stone material would be covered and silt fencing would be installed in accordance with federal, state, or local erosion and sediment control regulations. ~~Silt fencing would be installed, if required.~~

Page 22, Recommended Wilderness Mitigation Measures

Bullet 2 revised as follows for clarification:

- Tower antennas would be directed away from recommended wilderness ~~as much as possible~~ to minimize the extent of new cellular signals entering recommended wilderness.

Pages 55 and 57, References

Additions:

Environmental Protection Agency (EPA). 2017. "Regional Haze Program." Visibility and Haze. (April 25, 2017). Accessed February 27, 2020. <https://www.epa.gov/visibility/regional-haze-program>

Federal Communications Commission (FCC). 2016. Consumer Guide. Human Exposure to Radio Frequency Fields: Guidelines for Cellular Antenna Sites. Available at: https://www.fcc.gov/sites/default/files/human_exposure_to_radio_frequency_fields_-_guidelines_for_cellular_antenna_sites.pdf. Accessed February 11, 2020.

World Health Organization (WHO). 2006. Electromagnetic fields and public health, Base stations and wireless technologies. (<https://www.who.int/peh-emf/publications/facts/fs304/en/>). Accessed February 11, 2020.

APPENDIX C: NPS RESPONSE TO PUBLIC COMMENTS

A public review and comment period of the EA was open on the Planning, Environment, and Public Comment (PEPC) website from October 25 – November 25, 2019. Press releases announcing the EA and the public comment period were mailed to media outlets, agencies and stakeholders. The EA was available on PEPC and the public was invited to submit comments via mail or through PEPC.

A total of 402 pieces of correspondence were received via PEPC and mail. The public comments did not change the conclusions of the EA about the environmental effects of the action but did offer substantive feedback. This section summarizes the substantive comments that were received during the public review period of the EA. Substantive comments do not include the entire correspondence text from any individual letter but capture the primary concerns in “concern statements.” Concern statements are italicized below; the NPS responses are in plain text. All correspondence received by the NPS is contained in the project’s decision file located at Bryce Canyon National Park.

Concern statement: There was no formal consideration in the EA regarding whether the proposed action is in conflict with the Park’s mission.

- Response: Pursuant to the Telecommunications Act of 1996 (47 USC 332 note), the NPS reviewed the right-of-way application from Verizon Wireless and concluded the selected alternative will benefit the public and NPS by improving communication among visitors, and between visitors and the NPS, while minimizing impacts to other park resources and values. Therefore, the NPS determined that the selected alternative will not cause conflict with the park's mission, and providing improved cellular service is consistent with the purpose and values for which the park was established. See the rationale section of the FONSI for additional details.

Concern statement: The EA lacks references to important laws and regulations and does not include a list of preparers.

- Response: The 2015 NPS NEPA Handbook and supplemental guidance: Preparing Focused and Concise EAs outline the recommended process, content, and considerations for the preparations of EAs. These guidance documents emphasize the objective of preparing concise EA documents focused on the evidence and analysis for determining whether to prepare an EIS or FONSI. The formerly common “relevant laws and policies” and “list of preparers” sections of an EA are no longer required according to the current NEPA Handbook and supplement as they often do not help the reader understand the proposal or need for taking action. A brief discussion of a limited number of laws, regulations, or policies that will help the reader understand the proposal or need for taking action, such as those that directly relate to NPS authority to take the proposed action or that directly relate to constraints on the range of alternatives that can be considered, is recommended. Where appropriate, laws and regulations were cited throughout the EA including NPS Management Policies (NPS 2006b), RM-53 (NPS 2009), and the Telecommunications Act of 1996 (47 USC 332 note).

Concern statement: The EA does not include coverage maps.

- Response: NPS was provided coverage maps as part of the environmental assessment from Verizon Wireless. NPS requested to include the maps in the EA and FONSI; however, Verizon Wireless determined that the maps contain commercially sensitive and proprietary information and could not be released to the public in accordance with

Exemption 4 of the Freedom of Information Act (FOIA). The information presented in the maps was reviewed by NPS and this information was incorporated in the analysis of the EA and informed the decision in the FONSI.

Concern statement: Mitigation measures include vague language such as “if needed”, “if feasible”, and “as much as possible”.

- Response: Mitigation measures have been revised in the FONSI and in errata to the EA to remove vague language and clarify intent.

Concern statement: Human health effects of electromagnetic frequency (EMF) and radiofrequency (RF) radiation are not analyzed.

- Response: The FCC has adopted guidelines for evaluating human exposure to RF fields from fixed transmitting antennas like those used for cellular sites (FCC 2016). The FCC’s guidelines are identical to those from the National Council on Radiation Protection and Measurements (NCRP) and are similar to those from the Institute of Electrical and Electronics Engineers (IEEE) (FCC 2016). When looking at the effects of RF-EMF for the proposed Verizon tower at Bryce Canyon, it is worth noting that ground-level power densities of cellular communication sites, especially those with tower-mounted antennas, are well below the exposure limit safety standards set by the FCC (FCC 2016). The NPS has analyzed additional research articles on the topic of EMF exposure to human health and has determined that none of the materials reviewed establish a need to reanalyze the topic in the EA.

Current scientific understanding on the human health effects of RF-EMF is summarized by the World Health Organization’s International EMF Project, formed in 1996. Their information sheet “Electromagnetic fields and public health, Base stations and wireless technologies” (WHO 2006) concludes after a review of the scientific literature, that no adverse short- or long-term health effects have been shown to occur from cellular antennas. It notes that the only health effect identified in scientific literature is related to an increase in body temperature ($>1^{\circ}\text{C}$) from exposure to very high intensity RF fields found in certain industrial facilities. The levels of RF exposure from cellular antennas and networks are so low that the temperature increases are insignificant and so do not affect human health. The high frequency of RF means that at similar RF exposure levels, the body absorbs up to five times more of the signal from FM radio and television than from cellular antennas. Some individuals report experiencing non-specific symptoms when exposed to RF fields and other EMF devices; however, there is no scientific link demonstrating that EMF causes these symptoms. The information sheet also addresses the need for further research.

Concern statement: The discussion of Class I air quality in the EA should reflect the Regional Haze Rule of the Clean Air Act.

- Response: The discussion of the dismissal of the air quality impact topic on page 3 of the EA has been revised to include information regarding the Regional Haze Rule. This additional information did not change the analysis in the EA.

Concern statement: NPS should be wholly indemnified in case of emergencies that occur as a result of the tower, and permits should require revocation and removal of the facilities if they become obsolete or unnecessary.

- Response: Indemnification, permit revocation, and removal of improvements are addressed as part of the Right-of-Way (ROW) permit.

APPENDIX D: NON-IMPAIRMENT DETERMINATION

The NPS Organic Act of 1916 and the General Authorities Act of 1970 prohibit impairment of park resources and values. The 2006 NPS Management Policies use the terms “resources and values” to mean the full spectrum of tangible and intangible attributes for which the park is established and managed, including the Organic Act’s fundamental purpose and any additional purposes as stated in the park’s establishing legislation. The impairment of park resources and values may not be allowed unless directly and specifically provided by statute. The primary responsibility of the NPS is to ensure that park resources and values will continue to exist in an unimpaired condition that will allow people to have present and future opportunities for enjoyment of them.

Before approving a selected alternative in a Finding of No Significant Impact (FONSI), the NPS decision-maker must determine in writing that the selected alternative will not impair those park resources and values that were analyzed in detail in the environmental assessment. This written document is called a “non-impairment determination.”

The following non-impairment determination has been made for the selected alternative (Alternative B: New 60-foot Self-Support Tower at Science Hill) analyzed in the Bryce Canyon National Park Cellular Telecommunications Tower with Power and Fiber Optic Connection environmental assessment (EA). Topics that were considered in detail in the EA and are, therefore, discussed below are: historic properties and cultural landscapes, vegetation, visual and scenic resources, and recommended wilderness. Note that, although it was analyzed in detail in the EA, impacts to visitor experience are not subject to the non-impairment standard established by the Organic Act and clarified further in Section 1.4.6 of NPS Management Policies 2006.

As was documented in the EA, the selected alternative was found to have minimal impacts on other resources such as: air quality, archaeological resources, environmental justice, ethnographic resources and Indian sacred sites, human health and safety, migratory birds, night sky, soundscape, and special status species. See the Impact Topics Dismissed from Further Analysis section of the EA for more information. The impacts to these resources are small and insignificant. The resources will remain available to be enjoyed by current and future generations. Therefore, they will not be impaired by implementation of the selected alternative.

Historic Properties and Cultural Landscapes

There are eight historic properties in the developed area of BRCA:

- Bryce Canyon Lodge Historic District including the Bryce Canyon Lodge and Deluxe Cabins National Historic Landmark,
- Old NPS Housing Historic District,
- Bryce Canyon National Park Scenic Trails Historic District,
- Bryce Inn (now General Store),
- Loop C Comfort Station – North Campground,
- Loop D Comfort Station – North Campground,
- Old Administration Building (now High Plateaus Institute), and
- Utah Parks Company Service Station.

Except for the Bryce Canyon National Park Scenic Trails Historic District, the historic properties listed above are all more than 1,800 feet (0.34 mile) north of the tower site. The tower will either not be visible at all from these properties or will be heavily screened and will not figure prominently in views of the properties, or from the properties, due to the intervening distance, topography, and vegetative screening. Therefore, the tower will have little to no impact on the integrity of these historic properties and will not affect their eligibility for inclusion in the National Register of Historic Places (NRHP).

The Bryce Canyon National Park Scenic Trails Historic District is listed in the NRHP under Criterion A for its association with the development of NPS administrative facilities, and under Criterion C as an example of a designed landscape. The Historic District includes the following five structures (trails): Navajo Loop Trail, Queen's Garden Trail, Peekaboo Loop Trail, Fairyland Loop Trail, and Rim Trail, as well as the area 10 feet on either side of the trails. Although the trails have individual names, they are all connected and form a contiguous network. The setting of this property is among the most important aspects of its integrity as it was originally designed to provide views of the canyons and amphitheaters below the rim of the Paunsaugunt Plateau and, to a lesser extent, screened views into the developed area on the plateau.

The tower is expected to be visible intermittently along approximately 3,155 feet (0.6 mile) of the 11,773-foot (2.2-mile) segment of the Rim Trail from Sunrise Point to Bryce Point, or approximately 27% of this portion of the trail. It is also expected to be visible intermittently along approximately 320 feet of the northwestern portion of the 1.8-mile Queen's Garden Trail immediately below Sunrise Point. At its nearest point, the tower will be roughly 835 feet west of the Rim Trail. The addition of the tower to the viewshed of the Bryce Canyon Scenic Trails Historic District will introduce a modern, man-made element to the natural setting; however, the tower will not figure prominently in the viewshed of the historic district as it is not expected to penetrate the skyline or exceed the visually adjacent tree height and will be at least partially screened by tree cover in all views. Therefore, the impact on the integrity of the Bryce Canyon Scenic Trails Historic District will not be substantially diminished and it will remain listed on the NRHP.

Vegetation

The selected alternative will result in a permanent loss of roughly 900 square-feet of vegetation and exposed soil from the installation of the fenced tower compound. Trampling during construction will also damage an area of up to 3,300 square-feet (0.08 acre) but following construction this area will be revegetated by seeding and/or planting it with native grasses and forbs. Impacted species are relatively common to BRCA, and the site location avoids sensitive bristlecone pine habitat. Minimal tree removal may also be required possibly including one large (16 inch diameter at breast height [dbh]) ponderosa pine and / or less than 5 smaller (up to 4 inches dbh) ponderosa pine or juniper trees. The fiber optic utility line will be installed in the previously disturbed road corridor and will not impact any vegetation, including the sensitive species *Lomatium minimum*. The *L. minimum* populations along the road will either be transplanted, or populations will be marked off for avoidance to ensure construction personnel do not impact them. Vegetation management prescriptions, restoration, and mitigation measures will minimize adverse impacts.

Visual and Scenic Resources

The tower will be visible from numerous locations throughout the developed area of the park, including in some views of BRCA's iconic geologic scenery. From 13 of the 24 key observation points (KOPs) analyzed in the EA, the tower is expected to either not be visible at all or will not

be seen by the casual observer because of heavy screening from intervening vegetation and topography.

From the remaining 11 KOPs views of the lower portion of the tower are expected to be at least partially obscured by topography and/or vegetation. The degree of visibility depends on the proximity of the KOP to the tower. From more distant locations, including the Sunset and Sunrise Point segments of the Rim Trail, the Sunrise Point scenic overlook, and the Queen's Garden Trail, the tower will not compete with major landscape elements because it lacks sufficient contrast and/or occupies a small part of the field of view. From closer locations, including the Inspiration Point (Mid and High) segments of the Rim Trail and scenic overlooks, Inspiration to Sunset segment of the Rim Trail, Rim Road (Highway 63) South, and Bryce Point Road, the tower's man-made appearance is expected clearly contrast with the natural setting, but will not strongly attract attention because it still occupies a small part of the field of view.

The tower will generally be seen in the periphery of views of the geologic scenery of the amphitheater from scenic overlooks and historic trails where it is visible. From these locations some visitors who are focused on the scenic views below the rim may not notice the tower at all, so it will have very low potential to impact their experience of the scenic resources. For other visitors who do notice the tower, it is likely to draw minimal, if any, focus away from the scenic canyon features.

The selected alternative will not result in the loss of rock formations and the tower will not substantially diminish the integrity of the geologic features central to the establishment of the park.

Recommended Wilderness

The tower under the selected alternative will not be built in recommended wilderness. The tower will have antennas pointed to the north, south and west. No antennas will point east toward the nearest recommended wilderness area. However; some new or improved cellular service is expected in a couple of remote locations in recommended wilderness, including on the plateau between Yellow Creek and Sheep Creek, and along the southwestern edge of Boat Mesa. There are no established trails within these areas that will be affected by the selected alternative. Noise from cellular use is not expected to change and will not impact the natural quality of wilderness.

Conclusion

In conclusion, based on the preceding analysis and in consideration of the park's purpose and significance, it is the Superintendent's professional judgment that these resources will continue to be present for enjoyment by current and future generations. Therefore, implementation of the selected alternative will not constitute an impairment of the resources or values of Bryce Canyon National Park.