



Frequently Asked Questions

Telecommunications Plan/Environmental Assessment

1. What is the purpose of this telecommunications plan?

The purpose of the Telecommunications Plan/Environmental Assessment (Plan/EA) is to identify appropriate types and locations of telecommunications infrastructure and services within Grand Canyon National Park in order to provide sufficient and reliable cellular and Internet/wireless coverage, two-way radio communications, and data network capacity to meet the needs of visitors, the National Park Service (NPS), and park partners within developed areas of the park.

2. Why is action needed?

Existing cellular and Internet/wireless coverage and data network capacity within Grand Canyon National Park is insufficient to support the needs of visitors—who totaled close to 6.4 million in 2018, the NPS, and park partners including concessioners, non-profit organizations, tribes, the public school, medical clinic, utility company, and other local and federal law enforcement agencies.

Action is specifically needed at this time to:

- Comprehensively address substantial cellular service and bandwidth deficiencies within developed areas of the park that currently inhibit NPS operations as well as the activities of visitors and park partners.
- Develop guidance for the types and locations of telecommunications infrastructure within Grand Canyon National Park that minimizes impacts to park resources.

3. What is Grand Canyon National Park proposing to do?

The National Park Service is proposing to enhance cellular and Internet services and data network capacity within developed areas of Grand Canyon National Park.

More specifically, the park is proposing to accommodate up to five additional telecommunications towers within specific developed areas on the North and South Rims, the installation of small-cell nodes in high visitor use areas, and the installation of fiber optic communications cable along existing developed corridors. The proposed action also includes the removal or relocation of existing telecommunications infrastructure. For example, one existing telecommunications tower within Grand Canyon Village may be relocated to an area outside of a historic landmark district.

All new or relocated telecommunications infrastructure would be sited, designed, and constructed in adherence to NPS-identified parameters in order to avoid or minimize impacts to park resources. For example, towers would be limited in height based on the surrounding area, sited outside of historic districts, designed to blend into surroundings, and would be able to accommodate a number of carriers.

4. What is small-cell technology?

Small-cell technology is an umbrella term for short-range antenna systems that can provide cellular coverage within a range of up to several hundred meters. In comparison, macro-cell technology (such as cellular telecommunications towers) might have a range of up to several tens of kilometers. Small-cell technology enhances coverage, both in terms of speed and capacity, in congested areas and where towers are not practical.

Small-cell technology has a distinctly smaller footprint than structures such as traditional telecommunications towers and can be placed closer to the user. For example, a typical antenna panel for small-cell technology is three to four feet tall, about six inches wide, and four to six inches thick. Between two and four of these panels can be mounted on existing infrastructure, such as wrapped around an existing light pole (visually similar to having three power transformers that are wrapped on top of a power pole).

5. How tall could the proposed towers be?

All traditional telecommunications towers that are proposed within the Plan/EA would be a monopole or lattice tower, ranging in height from a maximum of 80 to 180 feet depending on distance from the rim and surrounding vegetation and topography. Proposed heights are intended to provide some expanded coverage while accommodating up to four users (i.e. cellular companies) on each tower. Four out of the five additional towers would be in close proximity to an existing tower of comparable height.

6. Where would these proposed towers be located?

New telecommunications towers, which would need to comply with specific NPS guidelines, could be accommodated at the following locations: within Grand Canyon Village (outside of the historic district), south of Hopi Point (where existing telecommunications infrastructure would be consolidated), and near Desert View on the South Rim; and on CC Hill and Lindberg Hill on the North Rim.

Small-cell technology, which would also need to adhere to specific NPS guidelines, could be accommodated at high use areas such as the Grand Canyon Visitor Center, within Grand Canyon Village, and at Market Plaza on the South Rim, and near Grand Canyon Lodge on the North Rim.

7. Why are towers proposed at the locations identified?

Tower siting requirements are administered by the Federal Communications Commission and must adhere to a range of federal acts and industry standards to ensure, safe, functional and ethical operations. Factors that have and would continue to influence the specific locations of proposed telecommunications towers with Grand Canyon National Park include:

- Identified need for new or improved service (cellular, radio, and/or Internet) in the area
- Protection of natural and cultural resources
- Presence of or proximity to previous infrastructure
- Proximity of tower to existing development, most notably power and existing fiber optic cable or conduit
- Distance of tower to existing NPS radio infrastructure
- Aesthetics of tower and potential impacts to NPS resources
- Height of structure and associated antenna over surrounding terrain (feasibility and practicality)
- The frequency of signal in use
- Timing limitations in some technologies
- The transmitters rated power
- The required uplink/downlink data rate of the subscriber's device
- The directional characteristics of the site antenna array
- Reflection and absorption of radio energy by buildings or vegetation

8. How would the proposal change cellular and Internet service within the park?

The NPS' current proposal, if fully implemented, would continue to allow Internet services and cellular coverage in existing areas, and would improve Internet services and cellular coverage in developed areas of the park where it is currently limited or absent.

9. How did the NPS identify the proposed action?

The need for action was informed by visitor comments, internal NPS discussions, staff surveys, and outreach to in-park partners. The proposed action was informed by these identified needs; technical information

obtained from NPS staff, other agency staff, and telecommunication companies; and internal NPS discussions balancing needs, resource impacts, and technical limitations.

10. Who would pay for the proposed infrastructure?

The NPS is not proposing to install infrastructure directly. Rather, the park would accept and process applications for telecommunications equipment and services that are consistent with the Plan/EA, once completed. If applications are approved and a right-of-way permit(s) issued, the permittee(s) would pay for the capital investment and associated maintenance. The permittee(s) would also be required to pay applicable fees to the federal government for the use of NPS lands.

11. What is an environmental assessment?

The NPS is preparing an environmental assessment (EA) in conjunction with the Telecommunications Plan to develop and evaluate alternatives to address the purpose and need for telecommunications infrastructure within Grand Canyon National Park. An EA, which is completed in accordance with the National Environmental Policy Act, guides decision makers as they seek to create policy or take action that balances human need with environmental stewardship.

12. What is “scoping” and why is it important?

Scoping allows the general public, interested groups, and agencies the opportunity to participate early in development of the range of issues and alternatives to be considered. Scoping also allows a chance to identify topics and concerns that should be addressed in the EA. Finally, scoping helps bring forward new information useful in preparing the EA of which the NPS may not be aware.

13. How and when can the public comment on the Plan/EA?

The public scoping period begins July 22, 2019, and will remain open for 21 days, closing at midnight (EST) August 11, 2019. Comments may be submitted by mail, online, or in person at a scheduled public meeting. The preferred method for submitting comments is through the NPS Planning, Environment and Public Comment (PEPC) database at <http://parkplanning.nps.gov/GCTelecommunications>. Click on “Documents Open for Review” on the left panel of the webpage.

Mail-in comments can be sent to:
Superintendent
Grand Canyon National Park
Attn: Telecommunications Plan/EA,
P.O. Box 129
Grand Canyon, AZ 86023.

Comments may also be submitted at public meetings scheduled during the scoping period. An open house will take place at Grand Canyon’s South Rim, and a webinar will be hosted online. Meeting dates and locations are posted at the website <http://parkplanning.nps.gov/GCTelecommunications> under “Meeting Notices” on the left panel of the webpage.

14. How will my comments affect the Plan/EA?

Comments that provide insights about the project purpose and the park’s current proposal are particularly helpful, and new ideas and proposals are welcome. Following the public scoping period, the NPS will analyze and consider all feedback and begin preparation of the EA.

The NPS will not select an alternative for implementation until after the analysis of the alternatives and their potential impacts has been completed within the EA. There will be a second opportunity for public comment on the EA in late 2019, with the intent to arrive at a final decision shortly thereafter.