

Wireless Communications Services Plan Environmental Assessment

September 2008



Wireless Communications Services Plan

Environmental Assessment

Summary

The National Park Service (NPS) proposes to implement a Wireless Communications Services Plan in Yellowstone National Park.

This plan would protect park resources and values by limiting the types and locations of wireless services and infrastructure in Yellowstone National Park. Any new and appropriate wireless infrastructure would only be established at locations adhering to strict siting criteria. Wireless communication services covered in this plan include cellular phone services, NPS two-way radio system, resource monitoring stations, and wireless fidelity (WiFi) services.

This environmental assessment (EA) evaluates four alternatives for the proposed plan: A) No Action; B) reduction in wireless services; C) allow a limited increase in wireless services; and D) allow a substantial increase in wireless services. Alternative C is the park's preferred alternative; this alternative would add cellular coverage to the Lake area and improve cellular coverage at Canyon and Tower-Roosevelt. When feasible, the cell tower at Old Faithful would be relocated from its current location to a site near the water treatment plant to further reduce the impact on the viewshed. Antennas located at Mount Washburn would be relocated from the existing fire lookout and placed on a new platform tower adjacent to the lookout to reduce impacts to the viewshed from the historic lookout and improve visitor and park staff safety. On Bunsen Peak, obsolete equipment would be removed and the cellular phone facility would be relocated to Elk Plaza. The electric transmission line to the summit of Bunsen Peak would remain, but the equipment shed would be replaced with smaller equipment (e.g., cabinet sized weather-proof enclosures). Internet-WiFi access would be available at many of the park's hotels and stores and to residences in park development areas.

This EA has been prepared in compliance with the National Environmental Policy Act (NEPA) to provide the decision-making framework that 1) analyzes a reasonable range of alternatives to meet objectives of the proposal, 2) evaluates potential issues and impacts to Yellowstone's resources and values, and 3) identifies mitigation measures to lessen the degree or extent of these impacts. Impact topics examined in this EA are: Threatened and Endangered Species, Migratory Birds, and Birds of Special Management Concern, Wilderness, Soundscapes, Historic Properties and Cultural Landscapes, Health and Human Safety, Park Operations, Visitor Use and Experience, and Visual Quality. The only resource impact topic analyzed that could potentially result in moderate impacts under the preferred alternative is Visitor Use and Experience. All other impact topics examined resulted in impacts not greater than negligible or minor as a result of implementing the preferred alternative. The park conducted public scoping in 2006 from July 16–August 31 to assist with the development of this plan; comments were received, mostly in support of the proposed plan. No major impacts are anticipated as a result of this project. Implementation of the proposed actions would not result in unacceptable levels of impacts to park resources.

How this Plan/Environmental Assessment is Organized

The following summarizes the organization and highlights important sections of this document for the reader:

- <u>Chapter 1- Purpose and Need</u> explains the basis for this Wireless Communications Services Plan (page 1) along with background information on National Park Service policies and planning efforts that guide this analysis. You will find a discussion on current wireless communications services in the park (page 7) and a summary of resource impact topics (page 12) analyzed in later chapters.
- <u>Chapter 2 Alternatives Considered</u> is where you will find details on the proposed alternatives. It provides two important tables that summarize environmental impacts by alternative (Table 1; page 19) and compare alternatives (Table 2; page 20) based on the four types of services (NPS radio, Cell

Yellowstone National Park iii

Phone Service, Resource Monitoring Stations, Wireless Internet) this plan covers. After the alternatives are described, you will find sections on Procedures and Constraints that must be followed in order to comply with laws, regulations and policies (page 39) as well as Mitigating Measures that must be followed in order to reduce adverse effects (page 40). There is also a section on Guidelines and Criteria (page 42) established for all the action alternatives that are important for consistent project design.

- <u>Chapter 3 Affected Environment</u> describes the existing environmental conditions in areas potentially affected by this plan for those resources impact topics identified in Chapter 1. The information in this chapter provides the baseline for analysis.
- <u>Chapter 4 Environmental Consequences</u> discloses the environmental effects of the proposed alternatives on the resource impact topics identified in Chapter 1 and described in Chapter 3. This chapter is organized by resource impact topic. For each resource topic, methodologies, assumptions, intensity levels and thresholds of change are identified followed by details on impacts for each alternative.
- <u>Chapter 5 Consultation and Coordination</u> describes the scoping conducted for this plan/EA and lists those who prepared the document.
- A Glossary of Terms can be found after the Reference section following Chapter 5.
- The Appendices starting on page 140 provide information on the 2007 annual bird migration count (Appendix 1), a 15-year summary of annual bird migration counts (Appendix 2) and a summary of wireless telecommunication facilities (Appendix 3). Appendix 3 describes key components of wireless telecommunication networks and infrastructure requirements.

Public Comment

You may submit written comments through the NPS Planning, Environment and Public Comment (PEPC) Internet website (http://parkplanning.nps.gov/yell) or mail them to the superintendent at the address below. Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment (including your personal identifying information) may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. Comments are due by midnight (MDST), October 31, 2008.

Superintendent Yellowstone National Park Wireless Communications Services Plan EA Comments P.O. Box 168 Yellowstone National Park, Wyoming 82190

Yellowstone National Park

TABLE OF CONTENTS

APTER 1: PURPOSE AND NEED	
Introduction	1
Background	
Purpose and Need	1
Palatad Laura Dalisias Dlane and Astions	•
Related Laws, Policies, Plans, and Actions	
Authorities and Guidance for WCS Right-of-Way Permits	
Other Applicable Federal Laws, Executive Orders, and Regulations	
The Purpose of Yellowstone National Park	
Relationship to other Plans	
Current WCS in Yellowstone	
Impairment	11
Unacceptable Impacts	11
Appropriate Use	12
•••	
Public Scoping	
Impact Topics Retained for Further Analysis	
Natural Resources	
Cultural Resources	
	1/1
	15
Impact Topics Dismissed From Further Analysis	15
Impact Topics Dismissed From Further Analysis	15
Impact Topics Dismissed From Further Analysis	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring.	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi)	
APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) Electrical Power at Mt. Washburn	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) Electrical Power at Mt. Washburn FM Radio Stations	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring Wireless Internet (WiFi) Electrical Power at Mt. Washburn FM Radio Stations Alternative B: Reduction in Wireless Services	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) Electrical Power at Mt. Washburn FM Radio Stations Alternative B: Reduction in Wireless Services NPS Radio	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) Electrical Power at Mt. Washburn FM Radio Stations Alternative B: Reduction in Wireless Services NPS Radio Cell phone	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) Electrical Power at Mt. Washburn FM Radio Stations Alternative B: Reduction in Wireless Services NPS Radio Cell phone Resource Monitoring.	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) Electrical Power at Mt. Washburn FM Radio Stations Alternative B: Reduction in Wireless Services NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi)	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) Electrical Power at Mt. Washburn FM Radio Stations Alternative B: Reduction in Wireless Services NPS Radio Cell phone Resource Monitoring.	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) Electrical Power at Mt. Washburn FM Radio Stations Alternative B: Reduction in Wireless Services NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) FM Radio Stations	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) Electrical Power at Mt. Washburn FM Radio Stations Alternative B: Reduction in Wireless Services NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) FM Radio Stations	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring Wireless Internet (WiFi) Electrical Power at Mt. Washburn FM Radio Stations Alternative B: Reduction in Wireless Services NPS Radio Cell phone Resource Monitoring Wireless Internet (WiFi) FM Radio Stations Alternative C: Limited Increase in Wireless Services (Preferred Alternative) NPS Radio Cell phone	
APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) Electrical Power at Mt. Washburn FM Radio Stations Alternative B: Reduction in Wireless Services NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) FM Radio Stations Alternative C: Limited Increase in Wireless Services (Preferred Alternative) NPS Radio Cell phone Resource Monitoring. Alternative C: Limited Increase in Wireless Services (Preferred Alternative) NPS Radio Cell phone Resource Monitoring.	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) Electrical Power at Mt. Washburn FM Radio Stations Alternative B: Reduction in Wireless Services. NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) FM Radio Stations Alternative C: Limited Increase in Wireless Services (Preferred Alternative) NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) Resource Monitoring. Wireless Internet (WiFi) Wireless Internet (WiFi) Wireless Internet (WiFi) Wireless Internet (WiFi) Webcams	
APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) Electrical Power at Mt. Washburn FM Radio Stations Alternative B: Reduction in Wireless Services NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) FM Radio Stations Alternative C: Limited Increase in Wireless Services (Preferred Alternative) NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) FM Radio Stations FM Radio Stations FM Radio Stations	
Impact Topics Dismissed From Further Analysis APTER 2: ALTERNATIVES CONSIDERED Alternative A: No Action NPS Radio Cell phone Resource Monitoring Wireless Internet (WiFi) Electrical Power at Mt. Washburn FM Radio Stations Alternative B: Reduction in Wireless Services NPS Radio Cell phone Resource Monitoring Wireless Internet (WiFi) FM Radio Stations Alternative C: Limited Increase in Wireless Services (Preferred Alternative) NPS Radio Cell phone Resource Monitoring. Wireless Internet (WiFi) Resource Monitoring. Wireless Internet (WiFi) Wireless Internet (WiFi) Wireless Internet (WiFi) Webcams	

32
33
33
34
34 34
34 35
35
35
37
38
38
39
40
41
42
42
45
45
45
46 47
4-
47 48
48
49
48 49
49 51

	730
NATURAL RESOURCES	
Wildlife Threatened and Endangered Species	
Intensity Level Definitions	
Migratory Birds and Birds of Special Management Concern	80
Intensity Level Definitions	
Wilderness	
Intensity Level Definitions	
Soundscapes	91
Intensity Level Definitions	92
CULTURAL RESOURCES (Historic Structures and Cultural Landscapes)	97
Intensity Level Definitions	
SOCIAL RESOURCES	104
Health and Human Safety	
Guiding Regulations and Policies	
Methodology and Assumptions	
Intensity Level Definitions	
Park Operations	
Intensity Level Definitions	
Visitor Use and Experience	
Intensity Level Definitions	
Visual Quality including Viewsheds	118
	440
Intensity Level Definitions	118
APTER 5: CONSULTATION AND COORDINATION	
APTER 5: CONSULTATION AND COORDINATION	124
APTER 5: CONSULTATION AND COORDINATION	124 124
APTER 5: CONSULTATION AND COORDINATION Scoping Internal Scoping	124 124 124
APTER 5: CONSULTATION AND COORDINATION Scoping Internal Scoping Environmental Assessment Review and List of Recipients	
APTER 5: CONSULTATION AND COORDINATION Scoping Internal Scoping Environmental Assessment Review and List of Recipients List of Preparers and Reviewers	
APTER 5: CONSULTATION AND COORDINATION	
APTER 5: CONSULTATION AND COORDINATION Scoping Internal Scoping Environmental Assessment Review and List of Recipients List of Preparers and Reviewers References Glossary of Terms Appendices Appendix 1. Observations, North American Bird Count Appendix 2. 14 year summary of data collected during the North American Bird Count Appendix 3. General Summary of Wireless Telecommunications Facilities T OF TABLES	
APTER 5: CONSULTATION AND COORDINATION Scoping	

LIST OF FIGURES

Figure 1–Map of Existing Wireless Infrastructure in Yellowstone National Park	10
Figure 2–Alternative A No Action	20
Figure 3–Alternative B Reduction in Wireless Services	23
Figure 4–Alternative C Limited Increase in Wireless Services (Preferred Alternative)	26
Figure 5–Existing Lattice Tower NWW of Fishing Bridge Jiunction	27
Figure 6–Wastewater Treatment Plant Entrance, Fishing Bridge	
Figure 7–Water Tank Site, Lake Administrative Area	
Figure 8–One concept for an antenna platform on Mt. Wahsburn	
Figure 9–Alternative D Substantial Increase in Wireless Services	32
Figure 10–Existing Power Lines	36
Figure 11–Recommended Wilderness Map	57
Figure 12–Existing NPS Radio Coverage Map	
Figure 13–Microwave dish (near) and cell tower (far) in the Old Faithful area	
Figure 14–Lynx Analysis Units	