



## of Sound

"Natural sounds are part of the special places we preserve. Rustling winds in the canyons and the rush of waters in the rivers are the heartbeat and breath of some of our most valuable resources."

—Director Robert Stanton, National Park Service

### Sites and Sound

*The national parks were established "to conserve the scenery, the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations . . . ."*

*National Park Service Organic Act  
August 25, 1916*

From parks on the doorsteps of crowded cities to the welcoming wildness of the backcountry, our national parks offer a collection of characteristic sounds—including natural quiet—that are quickly becoming difficult to enjoy anywhere else.

One reason national parks remain special places is that they preserve unique resources such as natural sound environments. In fact, bugling elk, bubbling lava, and the roar of river rapids can be associated with

specific National Park System sites. National parks also offer visitors the opportunity to escape from the noises of civilization and to enjoy tranquility, solitude, and moments of contemplation unavailable closer to home. Consequently, it is an important responsibility of the National Park Service to protect characteristic sound environments, natural quiet, and the diminishing opportunity to experience these valuable resources.

### Listen to Our Legacy

Distractions abound in our daily lives. Phones, faxes, planes, cars, and trains ring and reverberate everywhere we go. For decades, people have sought solace in the national parks. Today, only relative quiet can be found, as the sounds of technological conveniences occasionally intrude into even the most remote corners of national parks.

Nevertheless, national parks prevail as some of the best places to hear the calls of wildlife and the melodies of wind and water. These precious reserves also serve as safe havens where birds and mammals live and reproduce away from stress induced by the clamor of human activities.

However, noise from machinery and ground and air transportation now affects animal behavior, cultural resources, and visitors' enjoyment of parks. Yet, the National Park Service mission would assure that

natural quiet is protected and that visitors have the opportunity to hear sounds of nature and sounds inherent in cultural settings with a minimum of modern intrusions.

Preservation and restoration of diminishing natural sound environments has become a foremost challenge in the protection of park resources. Today, management of such resources is essential for healthy wildlife populations and to provide tranquility and solitude in an increasingly mechanized society.

### Soundscapes

**Natural soundscapes** are environments that include the chirping of birds, rushing of streams, fluttering of leaves, the whistling of wind, and other natural elements. Maintenance of this environment is important not only for human enjoyment, but also for the fitness and survival of wildlife. The howl of a wolf, the bark of a prairie dog, and the scream of an

eagle are part of this environment. Wild animals use such language to warn of danger and to attract mates. Research shows that birds, mammals, insects, and amphibians may experience reproductive losses, habitat avoidance or abandonment, and injury when noise interferes with normal behavior and the ability to communicate or detect danger.

**Cultural soundscapes** include the stillness of historic events as well as familiar present day sounds. Real or imagined, the toll of a bell or the

bellow of a foghorn can provide memorable or inspirational moments for park visitors. Such man-made sounds often add depth and dimension to national park experiences.

**Natural quiet** in the national parks is experienced when a person with normal hearing can perceive nothing but the sounds produced by the natural and historic components of the park. This may include wildlife calls, low-level background sounds, or even silence—an apparent absence of any sound at all.

## Sources of Sounds

National parks are embellished with a symphony of natural sounds. Whispering winds and trickling streams mix with yipping coyotes and calling birds to produce a rich natural resource important to wildlife and humans alike. Although man-made, cultural sounds add meaning to park experiences as well. Regional music, songs, and language play substantial roles in telling the diverse stories of our national heritage.

Individuals who live and work near highways, railways, airports, and

other busy places are well acquainted with man-made sounds, especially noise. The quiet and tranquility found in national parks remain particularly important for these potential visitors.

However, National Park System sites contain their own sources of noise. Park maintenance operations, vehicles, aviation use, and sirens each affect natural sound environments. Concession sources such as fans, buses, maintenance equipment, loudspeakers, and air conditioners contribute to background noise as well. Even visitor sources such as vehicles, generators, stereos, and loud voices affect the condition of resources such as natural sound.

Accordingly, the National Park Service is developing policy on noise and the preservation of natural sound environments in parks. Sources of noise are being identified. Those distractions within the agency's control that impact park resources, wildlife, or visitors' experiences are managed properly.

Intruding noise sources are controlled in areas of parks where preservation of natural quiet or the opportunity for visitors to experience natural sound environments is a management objective. In this manner, the National Park Service can better protect natural resources and visitor experiences—now and in the years to come.

## Sound Preservation

Measures to reduce or eliminate noise in certain national parks are nothing new. To maintain wilderness values, mechanized equipment is excluded from backcountry areas. Roads wind through only a small percentage of park areas and the decibel level of equipment using them is limited. Motorboats are not permitted in certain natural areas and on many rivers of the National Park System. Although the Park Service uses aircraft where essential for rescue, safety, and maintenance operations, activities follow agency guidelines designed to minimize adverse impacts on wildlife, visitor experiences, and park resources.

As more people visit national parks and the use of transportation in, around, and above such special places increases, greater attention to preservation of natural sound environments is required. For example, aviation is an effective tool in park resource management activities, but noise from aircraft can disturb park visitors and wildlife. As a result, the National Park Service seeks alternatives to its own use of

aircraft and strives to incorporate internal controls such as quiet technology into its aviation program.

The National Park Service also works with commercial tour operators to ensure that such services remain sensitive to the experiences of other visitors and to wildlife. Although air, water, and bus tours provide some visitors access to or views of certain areas of some National Park System sites, such activities are inconsistent with the agency's mission of preservation of natural conditions within designated portions of national parks. Careful consideration and teamwork are especially important when managing these diverse uses of park resources.

Current research, including wildlife observation and studies monitoring sound, enables the National Park Service to work more effectively with tourism and aviation interests toward the preservation of natural sound resources. Such cooperation will continue to protect wildlife and enhance opportunities for park visitors to enjoy sound environments.



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ParkNet!

## Sound Information

To become more attentive of natural sound environments, consider your own activities as a park visitor:

Be considerate of fellow campers by adhering to campground quiet hours provided in park information. Always remember other park visitors and wildlife when talking,

playing radios, starting vehicle engines, or watching wildlife.

Use alternate methods of transportation such as shuttles where available to reduce noise and congestion on park roads. Choose transportation that minimally impacts natural quiet.