

NPS issues appropriate personal protective equipment, such as earplugs, to employees to minimize their exposure to workplace hazards. We are also in the process of re-designing the West Entrance kiosk to minimize noise and air pollution exposure to employees. The NPS has also established the off-site sale of winter entrance passes to further reduce snowmobile congestion, and subsequent employee exposure to snowmobile emissions. The measures contained in the proposed rule would further mitigate these impacts.

#### *Natural Soundscapes*

Natural soundscapes are the unimpaired sounds of nature, and are among the intrinsic elements of the environment that are associated both with the purpose of a park and with its natural ecological functioning. Human-generated noise in the winter includes that from snowmobiles, snowcoaches, and wheeled vehicles. Of particular concern to NPS is the impact of noise generated by humans in travel corridors or staging areas in developed areas that carries into backcountry areas, where visitors expect to hear only the natural soundscape. The majority of areas visited by individuals seeking solitude and quiet lie within close proximity to travel corridors and developed areas because other, more remote, areas of the park are not as easily accessible to the average visitor.

#### *Visitor Experience*

In YNP and GTNP, an average of 75 percent of winter visitors ride snowmobiles, 12 percent ride in snowcoaches, 20 percent use cross-country skis, 2 percent use snowshoes and 22 percent drive automobiles. These figures exceed 100 percent because some visitors engage in more than one activity. Visitors come to the parks seeking a winter recreation experience and surveys have shown the primary reasons people visit is to view natural scenery and wildlife. In surveys, visitors have also indicated that experiencing "tranquility," "peace and quiet," and "getting away from crowds," are important components of their visit. However, there are gaps between these characteristics and visitors' satisfaction with them based on visitor surveys. For instance, visitors rated "experiencing the tranquility" as the sixth most important component of their visit, while their satisfaction with that characteristic was 18th. Similarly, "experience peace and quiet" was rated 14th in importance and 25th in satisfaction. "Get away from crowds" had the largest gap: it was the 17th in

importance and 40th in satisfaction. This indicates that visitors feel that the values of tranquility, peace and quiet, and solitude are important and expected, but that they are often dissatisfied with their actual experience. The quality of the groomed surface is also an important indicator of visitor satisfaction with oversnow travel in Yellowstone. As roads are traveled by snowmobiles and snowcoaches they can develop bumps, also called moguls. On warm days with heavy snowmobile traffic, the road surface can become so deeply moguled as to render it unsafe for travel. Roads are groomed throughout the week, some on a daily basis, to mitigate this issue.

#### *Wildlife*

Wintering wildlife in YNP and GTNP can be challenged for survival due to high snow depths, cold temperatures, and lack of available forage due to deep snow. Wildlife, especially bison and elk, are frequently encountered by travelers along park roadways. Scientific studies, case incident reports, and the experience of park staff indicate that disturbance occurs to wildlife due to some motorized oversnow recreation. This disturbance could come from a visitor, concessioner, or administrative use of snowmobiles or snowcoaches. Additionally, wildlife disturbance and harassment occurs from contact with some cross-country skiers and snowshoers, both on the roadway and in the backcountry. In spite of these contacts, there is not evidence that winter recreation is clearly responsible for any long-term adverse consequences to ungulate populations, including bison and elk. Currently both of these species are at sound population levels.

#### **Impairment to Park Resources and Values**

In managing units of the National Park System, the NPS may allow activities that have both beneficial and adverse impacts on park resources and values. However, by the provisions of the laws governing the NPS, the NPS is prohibited from taking or authorizing any action that would result in adverse impacts so significant that they would, or are likely to, impair park resources and values. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is: (1) Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; (2) key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or (3) identified as a goal in the park's

general management plan or other relevant NPS planning documents.

The FEIS ROD, dated November 22, 2000, concluded that, of the seven alternatives evaluated in the FEIS, only one (alternative G), which called for a phase-out of snowmobile use in the parks, did not exceed a level of impairment. This was the basis for selecting this alternative, as described in the rationale for the decision in the November 2000 ROD. In all other FEIS alternatives, the existing snowmobile use in YNP was found to impair air quality, wildlife, the natural soundscape, and opportunities for the enjoyment of the park by visitors. In GTNP, impairment to the natural soundscape and opportunities for enjoyment of the park was found to result from the impacts of snowmobile and snowplane use. In the Parkway, impairment was found to result from snowmobile use on air quality, the natural soundscape, and opportunities for enjoyment of the park. These findings were made for all alternatives with snowmobile use, including those that would have required phased-in use of cleaner and quieter snowmobiles in accordance with set objectives for air and sound emissions. It was determined that there was no way to mitigate the impairment short of reducing the amount of use as determined by an effective carrying capacity analysis, or by imposing a suitable limit unsupported by such an analysis.

The final rule implementing FEIS alternative G, published in the **Federal Register** on January 22, 2001, recognized that, "achieving compliance with the applicable legal requirements while still allowing snowmobile use would require very strict limits on the numbers of both snowmobile and snowcoaches." Thus, through appropriate management actions, the January 2001 rule recognized that some snowmobile and snowcoach use could possibly be accommodated in the parks without resulting in an impairment to park resources and values.

Final SEIS alternative 4, with limited modifications, was selected in the March 25, 2003, ROD for implementation, and will be implemented through this proposed rule. NPS believes that this alternative would not impair park resources or values when fully implemented for several reasons. Fundamental to this alternative is an adaptive management and monitoring strategy, which allows park managers to modify use numbers or take other actions if thresholds related to noise, air quality, wildlife, employee and visitor health and safety, and visitor experience are exceeded.