

Unmanaged Motorized Recreation

What is unmanaged motorized recreation?

Recreation visitors expect a great deal from their national forests and other public lands in terms of settings, experiences, facilities and services. The challenge for recreation managers is to address the needs and conflicting expectations of millions of people who use and enjoy national forests while protecting the health and integrity of the land. Recreation is the fastest growing use of the national forests and grasslands; other federal, state, and private lands are also experiencing increased recreation use. Increased pressure from growing populations, coupled with advances in recreation technology, will continue to challenge public land management agencies, state and local governments, and private landowners. While the focus of this threat is on national forests and grasslands, management decisions must take into account the impacts of unmanaged recreation on adjacent private and public lands. Unmanaged off-highway vehicle (OHV) use is a spotlight issue representing this threat because of the unauthorized creation of roads and trails and the associated erosion, water-quality degradation, and habitat destruction.

National trends in OHV use

OHVs are a popular choice for outdoor recreation. According to a national survey on recreation and the environment about 36.3 million people participate in off-highway driving, ATV use, or motorcycle use (Cordell and others 2001). The same survey found that 11.6 million people use snowmobiles. Cordell reports a 43.8-percent increase in OHV use and a 34.8-percent increase in snowmobile use between 1982-83 and 1994-95 (Cordell and others 1999). An estimated 11 million visits to national forests involve OHV use; this constitutes about 5 percent of all recreation visits to national forests (English 2003).

Another trend is the uncontrolled proliferation of trails arising from repeated cross-country forays by OHV traffic. Unauthorized trails from motorized use cause much of the natural resource damage and some of the public safety concerns on national forests. Unauthorized trails are a major problem for forest managers. For example, Lewis and Clark National Forest personnel in Montana currently estimate that the forest has 1,348 unauthorized roads and trails extending for 646 miles (Robertson 2003).

The U.S. population in the southern and western regions is expected to increase nearly 50 percent by 2050 (USDA Forest Service, 2003). Given the popularity of OHV use on public lands throughout these regions, it is reasonable to assume that the recreational use of OHV will become increasingly significant for national forests for the foreseeable future.

Biophysical effects

The effects of OHVs on soil, water, vegetation, heritage sites, and wildlife have long been recognized in the scientific literature.

The magnitude of effects varies depending on local characteristics of the landscape including slope, aspect, soil susceptibility to erosion, and vegetation type. Riparian areas and riparian and aquatic species are particularly vulnerable to OHV damage. More recently, OHV use has been implicated in the spread of invasive species. Some wildlife species are also affected by the associated noise and disturbance, particularly throughout the winter and during reproduction season. Extensive study of biophysical and social impacts of OHV use is reflected in an annotated review of the scientific literature by Stokowski and LaPointe (2000).

Effects on soil erosion and vegetation

The primary effects of OHVs on soils are compaction and erosion, which may result in sedimentation into waterways. Damaged grasses and forbs may open the door to invasive plant species. The effects of OHV use on soils are most evident in desert soils or other easily eroded soil types such as the granitic soils of the Sierra Nevada. These effects are minimized when OHV travel is limited to roads and trails located and designed for motorized use. The adverse effects of motorized use are most evident where cross-country travel is permitted or motorized use is allowed on trails that are not designed for that purpose.

Effects on wildlife

The scientific literature indicates some wildlife species may be affected by excessive noise and disturbance. Displacement during winter depletes energy reserves needed for survival and reproduction by mammals and birds. The noise-insulating effect of snow can be reduced by extensive use of snowmobiles, thus decreasing survival rates for small mammals. On the other hand, some species (especially deer) adapt to the noise disturbance over time and may no longer be displaced by the activity.

What is the role of the Forest Service?

Providing outdoor recreation opportunities with minimized impacts to natural resources is a primary goal in the Forest Service strategic plan (USDA Forest Service 2003). The expected outcome is high quality recreational opportunities that contribute to meeting the outdoor recreational demands while sustaining natural resources.

OHV use has been allowed on national forest lands since at least the 1970s and is one of the fastest growing recreational activities on public lands. Two objectives of the goal in the strategic plan emphasize (1) improving public access and (2) improving the management of OHVs to protect natural resources, promote safety, and minimize conflicts among users (USDA Forest Service 2003).

Mechanisms for managing the effects of OHVs include designated routes, prohibited use in sensitive areas, user education, designed facilities, and appropriate enforcement. Estimates vary on the percentage of OHV users who cause extensive damage to natural resources by thoughtless or irresponsible behavior (such as hill climbs or mud bogs).

However, a disproportionate effect from irresponsible OHV use is likely because motorized vehicles are powerful, can travel many miles quickly, and can easily damage sensitive resources (Patterson 2003). Upward trends in vehicle ownership coupled with the decreased availability of open space outside of public lands influenced the Bureau of Land Management to disallow cross-country travel in its northern region (USDI Bureau of Land Management 2000).

Inherent characteristics of OHV use tends to create motorized- versus non-motorized-user conflicts that are difficult for land managers to resolve. OHV users generally travel farther using vehicles that are relatively loud compared to other recreational users. This applies both to national forest use and to use of lands adjacent to urban areas. These effects are also disproportionate to the number of users. Activities and noise levels that are acceptable in developed or urban areas commonly are less acceptable to non-motorized recreational users in a natural setting. The OHV community has made considerable efforts, along with the Forest Service, to educate and inform OHV users about acceptable OHV use; however, irresponsible behavior by a few OHV users adds to negative perceptions about OHV use on national forests.

Forest Service managers have observed that OHV users may displace other recreational users adding to the complexity of resolving user conflicts. Other users may prefer not to share facilities with OHV recreation because of the impacts of noise and speed on their recreational experience. Some users are demanding that zones for motorized versus non-motorized activities be established. OHV impacts and management challenges are outlined in a series of case studies on Bureau of Land Management and Forest Service units (Government Accounting Office 1995).

Law and policy governing OHV use

Federal policy on OHV use was established by Executive Order 11644 (1972), amended by Executive Order 11989 (1977). The executive order establishes policies and provides for procedures to ensure that OHV use on public lands is controlled and directed for the purpose of (1) protecting land resources, (2) promoting safety for all users, and (3) minimizing conflicts among the various users.

Forest Service regulations address OHV use in several parts: 36 CFR 295 addresses forest planning and management, 36 CFR 261.12 sets the prohibitions for use of national forest roads and trails, and 36 CFR 261.50 provides for Forest Orders to further regulate use of national forests. They are also addressed in Executive Orders 11664 and 11989 referenced in 36 CFR 295.

Forest Service senior leadership recently has advocated that OHV travel be allowed only on designated roads and trails. This guidance will be explored with revision of national regulations and manual direction. Currently, designation is a local decision (Paterson 2003). Local OHV management polices are addressed in forest plans, separate access and travel management plans, or project level decisions. For example, the Forest Service and the Bureau of Land Management decided to restrict motorized wheeled cross-country travel to designated roads and trails on nine National Forests and public lands in Montana, North Dakota and parts of South Dakota.

This decision was a result of heavy OHV use causing damage to resources and creating user conflicts (USDA Forest Service and USDI Bureau of Land Management 2001).

International context

Unmanaged motorized recreation promotes resource degradation on province, public and private lands throughout the world. In the international context, this issue is sometimes discussed in terms of ecotourism but often the focus is recreation management. Many countries are struggling to balance economic development and resource capacity. Well planned ecotourism is a boon to rural economies in many countries. Additionally, ecotourism and the associated funds often are critical components for protecting the world's great resources. However, if increased recreation is not well-managed, it can cause resource degradation. As the focus on ecotourism increases, land management agencies must understand how much recreation an area can absorb before the resources are negatively affected. For all public lands, the long term resolution may be limiting use based on capacity.

While ecotourism focuses mainly on international travelers, globally protected areas near urban centers often have high numbers of local recreational visitors. As more local people begin recreating in protected areas, it will be necessary to work with nearby communities to manage recreational impacts.

References

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