**United States Government Accountability Office** 

GAO

Report to the Subcommittee on National Parks, Forests and Public Lands, Committee on Natural Resources, House of Representatives

**June 2009** 

## FEDERAL LANDS

Enhanced Planning Could Assist Agencies in Managing Increased Use of Off-Highway Vehicles





Highlights of GAO-09-509, a report to the Subcommittee on National Parks, Forests and Public Lands, Committee on Natural Resources, House of Representatives

### Why GAO Did This Study

Off-highway vehicle (OHV) use on lands managed by the Department of Agriculture's Forest Service and the Department of the Interior's **Bureau of Land Management** (BLM) and National Park Service (Park Service) has become popular over the past few decades. Some critics have asserted that OHV use causes adverse environmental. social, and safety impacts, while proponents have voiced concerns about retaining access to federal lands. GAO examined the (1) trends in and status of OHV use on federal lands, as well as reported environmental, social, and safety impacts; (2) agencies' strategic planning for managing OHV use; (3) actions taken by agency field units to manage OHV use; and (4) current OHV management challenges.

GAO collected and analyzed related executive orders and agency OHV plans, regulations, and guidance; interviewed agency and interest group officials; and conducted a Web-based survey of all three agencies' field unit officials.

#### What GAO Recommends

GAO recommends that the Forest Service and BLM improve their strategic planning and take other actions to help provide quality OHV opportunities while protecting federal lands and resources. The agencies generally concurred with GAO's findings and recommendations.

View GAO-09-509 or key components. To view survey results, click on GAO-09-547SP. For more information, contact Robin M. Nazzaro at (202) 512-3841 or nazzaror@gao.gov.

### FEDERAL LANDS

# **Enhanced Planning Could Assist Agencies in Managing Increased Use of Off-Highway Vehicles**

#### What GAO Found

OHV use on federal lands—both authorized and unauthorized—increased from fiscal year 2004 through fiscal year 2008, with varying environmental, social, and safety impacts, according to officials from all three agencies. All three agencies reported that OHVs are predominantly used on their lands for OHV recreation, such as trail and open-area riding. Most Park Service officials said that OHV use constitutes less than 10 percent of the recreation on their lands. Most officials from all three agencies also said that OHV-related environmental impacts occur on less than 20 percent of their lands, although a few said that such impacts occur on 80 percent or more of their lands. Most officials said that social and safety impacts, such as conflicts with nonmotorized users, occasionally or rarely occurred.

Forest Service and BLM plans for OHV management are missing key elements of strategic planning, such as results-oriented goals, strategies to achieve the goals, time frames for implementing strategies, or performance measures to monitor incremental progress. For example, the Forest Service's strategic plan has no strategies to address key aspects of OHV management, such as communicating with the public or enforcing OHV regulations. Similarly, while BLM's recreation plan contains strategies addressing key aspects of OHV management, the agency has not identified time frames for implementing these strategies or performance measures for monitoring progress. The Park Service has no extensive planning for managing OHV use, but this absence seems reasonable given that its regulations limit OHV use to only a few units and OHV use is not a predominant recreational activity on its lands.

While agencies' field units have taken many actions to manage OHV use, additional efforts could improve communication and enforcement. In particular, units have taken actions such as supplementing federal funds with outside resources like state grants, communicating with the public by posting signs and maps, and enforcing OHV regulations by occasionally patrolling OHV areas and writing citations for OHV violations. Few officials, however, indicated that their unit had signs and maps for nearly all of their OHV areas. Additionally, while most field unit officials said that they conduct enforcement activities, such as writing citations, about half indicated that fines are insufficient to deter illegal or unsafe OHV use. In addition, a majority of officials reported they cannot sustainably manage their existing OHV use areas; sustainable management would include having the necessary human and financial resources to ensure compliance with regulations, educate users, maintain OHV use areas, and evaluate the OHV program.

Officials identified numerous challenges in managing OHV use, of which the most widely identified were insufficient financial resources, as well as staff for OHV management and enforcement. In addition, most officials cited enforcement of OHV regulations as a great challenge. Other challenges were maintaining signs, managing the public's varied expectations about how federal lands should be used, and changing long-established OHV use patterns.

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#### **Abbreviations**

BLM Bureau of Land Management

GPRA Government Performance and Results Act

Park Service National Park Service OHV off-highway vehicle

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### United States Government Accountability Office Washington, DC 20548

June 30, 2009

The Honorable Raúl M. Grijalva
Chairman
The Honorable Rob Bishop
Ranking Member
Subcommittee on National Parks, Forests
and Public Lands
Committee on Natural Resources
House of Representatives

Over the past few decades, the use of off-highway vehicles (OHV) has become a popular form of recreation nationwide, particularly on federal lands managed by the Department of Agriculture's Forest Service and the Department of the Interior's Bureau of Land Management (BLM) and National Park Service (Park Service). These federal agencies have acknowledged that, in appropriate locations and with proper management, use of motor vehicles—including OHVs such as all-terrain vehicles, offroad motorcycles, dune buggies, and other four-wheel-drive vehicles—is a legitimate way for people to enjoy their federal lands. OHV riders are a diverse group and seek a variety of recreational opportunities, including riding OHV trails; accessing scenic vistas, hunting grounds, and fishing sites; retrieving big game animals; and experiencing and enjoying the outdoors with family and friends. The use of OHVs and related potential effects, however, have come under considerable public scrutiny and discussion. Critics of OHV use have asserted that, if left unmanaged, OHV use causes adverse environmental, social, and safety impacts, while proponents have voiced concerns about maintaining access to federal lands for OHV-related recreation.

The Forest Service, BLM, and Park Service manage federal lands for a variety of purposes. Specifically, both the Forest Service and BLM manage their lands for multiple uses, including recreation, and provision of a sustained yield of renewable resources, such as timber, fish and wildlife, and forage for livestock. By contrast, the Park Service manages its land to conserve the scenery, natural and historical objects, and wildlife so they remain unimpaired for the enjoyment of present and future generations. Currently, these three agencies are operating in an environment of constrained budgets, in which OHV use must be managed in conjunction with issues such as providing other recreational opportunities, managing wildland fires, preventing illegal drug activities, and responding to impacts on resources and public safety from illegal smuggling activities along the

U.S. border. Although it has been more than 30 years since these agencies were directed to establish policies and procedures for managing OHV use, questions remain about how well OHV use has been managed.

In this context, this report examines (1) the trends in and status of OHV use on federal lands managed by the Forest Service, BLM, and Park Service from fiscal year 2004 through fiscal year 2008, as well as the reported environmental, social, and safety impacts of OHV use; (2) the agencies' strategic planning for managing OHV use on federal lands; (3) actions taken by the agencies' field units in managing OHV use on their lands; and (4) current OHV management challenges facing these agencies.

In conducting our work, we collected and analyzed OHV-related documentation, including applicable executive orders and agency plans, regulations, and guidance. We also interviewed and collected documentation from Forest Service, BLM, and Park Service headquarters officials and national headquarters representatives of various OHV user and environmental groups. To obtain a better understanding of ongoing agency OHV management efforts, we visited selected Forest Service, BLM, and Park Service field units and interviewed agency officials, as well as representatives of OHV user and environmental groups near some of these units. We selected these field units—located in Arizona, California, Colorado, Florida, Maryland, Oregon, and Utah—on the basis of their geographic and ecological diversity. The specific field units we visited are identified in table 3 of appendix 1.

Because of a lack of historical and nationwide information about OHV use on federal lands, we also developed and administered a Web-based survey to gather federal land managers' perspectives on the management and use of OHVs from fiscal year 2004 through fiscal year 2008 on Forest Service, BLM, and Park Service lands. The survey was administered to the entire population of national forests and BLM field office units and to Park Service field units most likely to have OHV use, either authorized or unauthorized. To ensure the validity of survey responses, we (1) extensively pretested the survey to ensure that questions were understood appropriately across all three agencies, (2) pledged to report only aggregate survey information (as opposed to information that would

<sup>&</sup>lt;sup>1</sup>By regulation, OHV use is allowed only in certain Park Service units. We selected all park units that could allow OHV use, as well as units that could have unauthorized OHV use. These selected units comprise about 97 percent of the total Park Service land area. The final list of Park Service units included in our survey was vetted with Park Service officials.

identify a particular unit), and (3) conducted reliability and validity checks of the survey responses. We obtained a 100 percent response rate for the survey from all three agencies. A complete tabulation of the results of the survey can be viewed at GAO-09-547SP. To characterize the results from our survey in this report, we assigned specific meanings to the words used to quantify the results, as follows: "a few" means 1 to 24 percent of respondents, "some" means 25 to 44 percent of respondents, "about half" means 45 to 55 percent of respondents, "a majority" means 56 to 74 percent of respondents, "most" means 75 to 94 percent of respondents, and "nearly all" means 95 percent or more of respondents. Appendix I explains our methodology in greater detail.

We conducted this performance audit from February 2008 to June 2009, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

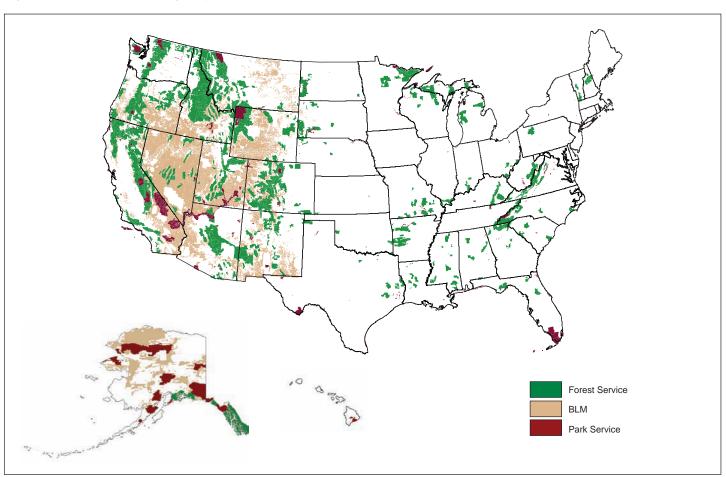
### Background

The Forest Service, BLM, and Park Service manage more than 530 million acres of federal lands across the country (see fig. 1). Each agency has a unique mission focusing on priorities that shape how they manage those lands. Specifically,

- The Forest Service manages more than 190 million acres to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations. The agency manages and issues permits for activities such as recreation, timber harvesting, mining, livestock grazing, and rights-of-way for road construction. The Forest Service manages lands under its jurisdiction through nine regional offices, 155 national forests, 20 grasslands, and over 600 districts (each forest has several districts).
- BLM manages about 256 million acres to sustain the health, diversity, and
  productivity of the public lands for the use and enjoyment of present and
  future generations. The agency manages and issues permits for activities
  such as recreation, timber harvesting, mining, livestock grazing, and oil
  and gas development. BLM manages public lands under its jurisdiction
  through 12 state offices, with each state office having several subsidiary
  district and field offices.

• The Park Service manages 391 national park units covering more than 84 million acres to conserve the scenery, natural and historic objects, and wildlife of the national park system so they will remain unimpaired for the enjoyment of this and future generations. The park units have varied designations corresponding to the natural or cultural features they are supposed to conserve, including national parks, monuments, lakeshores, seashores, recreation areas, preserves, and historic sites.

Figure 1: Federal Lands Managed by the Forest Service, BLM, and Park Service



Source: GAO analysis of U.S. Geological Survey's National Atlas Web site data.

While managing their respective lands, these three agencies must comply with the Government Performance and Results Act of 1993 (GPRA).<sup>2</sup> This act shifts the focus of government decision making and accountability away from activities that are undertaken—such as the number of plans developed—to the results of those activities, which, for the land management agencies, might include gains in resource protection and quality of recreational opportunities. Under GPRA, strategic plans are the starting point and basic underpinning for results-oriented management. As such, these plans should include, among other things, (1) results-oriented short- and long-term goals, (2) strategies to achieve the goals, (3) time frames for carrying out the strategies, and (4) performance measures to monitor incremental progress.<sup>3</sup> Results-oriented goals have the potential to help agencies focus on the outcomes of their programs, rather than on outputs such as staffing or numbers of activities. In addition, developing strategies is important, so that agencies can identify how they intend to achieve their goals. Setting time frames for the strategies and developing performance measures to monitor incremental progress ensure that agencies make progress toward achieving their goals in a timely manner. Finally, since one purpose of GPRA is to improve the management of federal agencies, it is particularly important that agencies' plans address key management challenges.

Federal agencies' management of OHV use on federal lands is also guided by two executive orders issued in the 1970s. The first executive order establishes policies and procedures to control and direct the use of OHVs on federal lands in a manner that

- protects the resources of those lands,
- promotes the safety of all users,
- minimizes conflicts among federal land uses,

<sup>&</sup>lt;sup>2</sup>Government Performance and Results Act of 1993, Pub. L No. 103-62, 107 Stat. 285.

<sup>&</sup>lt;sup>3</sup>GAO, Agencies' Strategic Plans Under GPRA: Key Questions to Facilitate Congressional Review, GAO/GGD-10.1.16 (Washington, D.C.: May 1997), and GAO, Managing for Results: Critical Issues for Improving Federal Agencies' Strategic Plans, GAO/GGD-97-180 (Washington, D.C.: Sept. 16, 1997).

<sup>&</sup>lt;sup>4</sup>Exec. Order No. 11,644, 37 *Fed. Reg.* 2877 (Feb. 8, 1972) (as amended by Exec. Order No. 11,989, 42 *Fed. Reg.* 26,959 (May 24, 1977).

- communicates with the public about available OHV opportunities,
- prescribes appropriate penalties for violating OHV regulations, and
- monitors the effects of OHV use.

The executive order also directs each federal land management agency to develop and issue regulations that designate specific areas and trails on public lands as open or closed with respect to OHV use. In making these designations, agencies are directed to minimize damage to the soil, watersheds, vegetation, or other resources of the federal lands; harassment of wildlife or significant disruption of wildlife habitats; and conflicts between the use of OHVs and other types of recreation. The second executive order directs agency heads to close areas or trails if OHVs are causing considerable adverse effects. The Forest Service, BLM, and Park Service initially implemented these executive orders by designating areas as open, which allows cross-country OHV use; limited, which allows OHV use on a specific route authorized by an agency; or closed, which prohibits OHV use.

In recent years, the agencies have begun to reevaluate the procedures they use to make OHV designations—or are in the process of developing additional regulations for OHV use—in light of the recent increase in popularity of OHV use. Specifically, in 2005, the Forest Service issued a travel management regulation, in part to standardize the process that individual national forests and grasslands use to designate the roads, trails, and areas that will be open to motorized travel. This designation process applies only to motorized vehicles and does not address other forms of transportation, such as biking, horseback riding, and hiking. After roads, trails, and areas are designated, the travel management regulation requires that motorized travel be limited to designated roads, trails, and areas, reducing the acreage within national forests that is open to cross-country travel. The travel management regulation also requires that designated roads, trails, and areas be displayed on a motor vehicle use map. The Forest Service developed a schedule to complete the route designations and to develop the required motor vehicle use maps by the end of calendar 2009. As of March 2009, the Forest Service had completed travel management planning for 53 million acres, or about 28 percent of its lands. In January 2009, the Forest Service updated its travel management guidance to provide individual forests with details on how to designate roads, trails, and areas for motorized use. This guidance, among other things, describes the process that forests should go through to make travel management decisions, including the criteria for making these decisions.

These criteria include effects on natural and cultural resources, effects on public safety, provision of recreation opportunities, access needs, conflicts among uses of national forest lands, the need for maintenance, and the availability of resources for such maintenance.

Like the Forest Service, BLM has also begun to reevaluate the procedures it uses to make OHV designations. Over the past 10 years, BLM has issued increasingly detailed guidance on how its field offices should address travel management in their resource management plans. 5 In accordance with the executive orders, BLM regulations require that all its lands be given an area designation of either open, limited, or closed with respect to motorized travel and that these designations be based on protecting resources, promoting the safety of users, and minimizing conflicts between users. As of March 2009, BLM had designated about 32 percent of its lands as open to motorized travel, 48 percent as limited, and 4 percent as closed; 16 percent are not yet designated. BLM's most recent guidance, issued in 2007, provided additional details related to how field units should conduct travel planning in the context of resource management planning. While updating a resource management plan, BLM field unit officials are to inventory and evaluate OHV routes and area designations (such as open, limited, and closed), seek public input, and make changes as appropriate. For example, when BLM's Moab Field Office in Utah finalized its resource management plan in October 2008, the plan changed the area designations of many lands under the field office's jurisdiction. Specifically, open areas were reduced from 1.2 million acres to 2,000 acres, limited areas were increased from 600,000 acres to 1.5 million acres, and closed areas were increased from 24,000 acres to 339,000 acres. For areas designated for limited OHV use, BLM guidance states that the resource management plan must include a map identifying the OHV route system. In addition, because of recent increases in OHV use on public lands and the potential for related resource damage, BLM's latest guidance encourages field units not to designate large areas as open to motorized travel. BLM headquarters officials have estimated that in about 10 years they will complete updating resource management plans to include travel planning.

The Park Service is currently developing regulations for OHV use for particular units. By regulation, the Park Service prohibits OHV use except

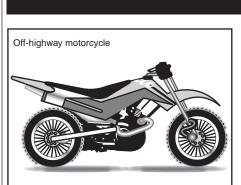
<sup>&</sup>lt;sup>5</sup>The Federal Land Policy and Management Act of 1976, Pub. L. No. 96-579, 90 Stat. 243, as amended, requires BLM to develop, maintain and, when appropriate, revise land use plans that provide for the use of the public lands in accordance with principles of multiple use and sustained yield. These plans are known as resource management plans.

in certain units designated as lakeshores, seashores, national recreation areas, or preserves. To authorize OHV use in such units, the unit is required to develop special regulations describing the areas where OHV use is permitted. Of the 391 national park units, 50 (13 percent) fall within one of these four designations. While many Park Service units with OHV use have developed special regulations, some units are currently in the process of developing their special regulations.

Many different types of OHV are operated on federal lands. For the purposes of this report, an OHV is any motorized vehicle capable of, or designed for, cross-country travel immediately on or over land, not including personal watercraft, snowmobiles, or aircraft. OHVs used on federal lands include off-highway motorcycles, all-terrain vehicles, utility terrain vehicles, dune buggies, swamp buggies, jeeps, and rock crawlers (see fig. 2). These vehicles may be used for various purposes, ranging from trail and open-area riding to hunting and accessing lakeshores, seashores, or in-holdings (private or state-owned lands inside the boundaries of federal lands). National OHV user groups have described OHV recreation as a way to experience challenge and excitement, enjoy the outdoors, and have fun as a family. In addition, OHV use may provide economic benefits to local communities near recreation sites.

<sup>&</sup>lt;sup>6</sup>In addition, the enabling legislation for a few national parks and monuments allows OHV use under certain circumstances.

Figure 2: Examples of OHVs

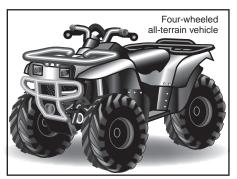


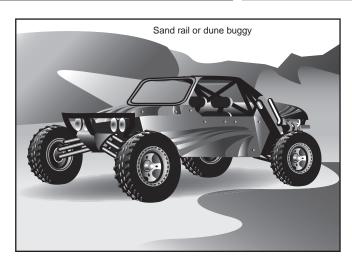


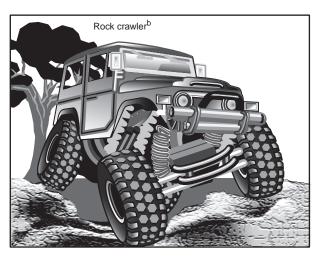












Source: GAO.

<sup>a</sup>Because of safety concerns, three-wheeled all-terrain vehicles are no longer sold in the United States.

<sup>b</sup>Rock crawlers and swamp buggies are often created through after-market modifications of more standard vehicles, such as jeeps.

The environmental impacts of OHV use, both direct and indirect, have been studied and documented over the past several decades. In fact, in 2004, the Forest Service Chief identified unmanaged motorized recreation as one of the top four threats to national forests, estimating that there were more than 14,000 miles of user-created trails, which can lead to longlasting damage. Potential environmental impacts associated with OHV use include damage to soil, vegetation, riparian areas or wetlands, water quality, and air quality, as well as noise, wildlife habitat fragmentation, and the spread of invasive species. For example, studies on the impacts of OHV use indicate that soil damage can increase erosion and runoff, as well as decrease the soil's ability to support vegetation. Additionally, research has shown that habitat fragmentation from OHV use alters the distribution of wildlife species across the landscape and affects many behaviors such as feeding, courtship, breeding, and migration; habitat fragmentation can also negatively affect wildlife beyond the actual amount of surface area disturbed by roads. In 2007, the U.S. Geological Survey reported that as a result of OHV use, the size and abundance of native plants may be reduced, which in turn may permit invasive or nonnative plants to spread and dominate the plant community, thus diminishing overall biodiversity. Another potential impact of OHV use is damage to cultural resources, including archaeologically significant sites such as Native American grave sites, historic battlefields, fossilized remains, and ruins of ancient civilizations.

The Use of Off-Highway Vehicles Has Increased on Federal Lands, with Varying Environmental, Social, and Safety Impacts OHV use on federal lands generally increased from fiscal year 2004 through fiscal year 2008, according to a majority of field unit officials from the Forest Service, BLM, and Park Service. Most field unit officials reported that environmental impacts associated with OHV use occurred on less than 20 percent of the lands they manage, although a few field unit officials reported that 80 percent or more of their lands are affected. Most field unit officials also indicated that social and safety impacts occasionally occurred on their lands.

Off-Highway Vehicle Use Has Increased over the Past 5 Fiscal Years

OHV use, including authorized and unauthorized use, increased on federal lands from fiscal year 2004 through fiscal year 2008. Specifically, most Forest Service and BLM field unit officials and some Park Service field unit officials reported an increase in authorized OHV use. Similarly, most BLM field unit officials, a majority of Forest Service field unit officials, and some Park Service field unit officials reported an increase in unauthorized OHV use. These agencies' field unit officials attributed the increased use of OHVs on federal lands to, among other things, a growing population in close proximity to federal lands and the rising popularity of OHV recreation. In addition, officials at two field units we visited said they have seen an increase in OHV use on their units because of OHV closures on nearby state and private lands. For example, Park Service officials from Big Cypress National Preserve said that both private and public lands in South Florida have been closed to OHV use, leading to increased OHV use in the preserve. Similarly, Forest Service officials from the Tonto National Forest said that OHV use has increased since the state of Arizona closed lands near Phoenix to OHV use in an effort to reduce dust pollution.

Most field unit officials reported that OHV use occurred on their lands from fiscal year 2004 through fiscal year 2008. Specifically, nearly all Forest Service and BLM field unit officials and a majority of Park Service field unit officials said that OHV use, whether authorized or unauthorized, occurred on the lands they manage. According to field unit officials from all three agencies, in an average year, OHVs were used on federal lands primarily for recreational activities such as trail and open-area riding. OHVs were also used on federal lands for hunting and game retrieval; to access particular areas, such as beaches and lakeshores; and for activities requiring a permit, such as geophysical exploration and ranching (see fig. 3).

Figure 3: Predominant Manner in Which OHVs Were Used on Federal Lands in an Average Year, by Agency BLM Park Service **Forest Service** 2% 3% 2% 2% 10% 15% 35% 19% 21% 26% 70% 68% 14% 10% OHV recreation Hunting Activities requiring a permit Access to a particular area Other

Note: The figure illustrates the percentage of field unit officials from each agency who reported the predominant manner in which OHVs were used in an average year on lands they manage.

In addition, the amount of OHV use relative to other types of recreational activities on federal lands, such as fishing, hunting, hiking, and camping, varies by agency. For example, most Forest Service field unit officials said that OHV use constitutes less than half the recreational activity on their lands, while a majority of BLM field unit officials indicated that OHV use constitutes more than half the recreational activity on their lands. Most Park Service field unit officials, however, indicated that OHV use constitutes less than 10 percent of the recreation taking place on their lands, in part because OHV use is authorized only in certain Park Service field units.

Source: GAO

Environmental Impacts of OHV Use Occur on Less Than One-Fifth of Federal Lands

Most field unit officials from all three agencies indicated that environmental impacts of OHV use occur on less than 20 percent of the lands they manage; a few field unit officials, however, reported that 80 percent or more of their lands are affected by OHV-related environmental impacts. Forest Service and BLM field unit officials were more likely to report greater percentages of land with environmental impacts than Park Service field unit officials. The OHV-related environmental impacts that field unit officials identified as most widespread were soil erosion, damage to vegetation, wildlife habitat fragmentation, and the spread of invasive species. For example, officials from the Tonto National Forest in Arizona noted that the main impact associated with OHV use in the forest has been soil erosion, particularly in areas with highly erodible soils (see fig. 4). Additionally, officials from BLM's Phoenix District in Arizona noted that OHV use has fragmented desert tortoise habitat because the tortoise can be disturbed by OHV noise. Other reported environmental impacts included damage to riparian zones and harm to threatened or endangered species.

<sup>&</sup>lt;sup>7</sup>Specifically, 31 field unit officials (7 percent of units that reported having OHV use) indicated that at least one environmental impact of OHV use affected more than 80 percent of their lands.



Figure 4: OHV-Related Soil Erosion in the Tonto National Forest

Source: GAO.

The severity of certain OHV-related environmental impacts, such as soil damage, may also depend on the ecosystem in which OHV use occurs (see fig. 5). For example, BLM officials from the El Centro Field Office in southern California explained that the Imperial Sand Dunes are dynamic and soil damage from OHV use tends to be minimal, since most tracks are quickly erased by the wind. In contrast, certain desert ecosystems, including those in Arches National Park, have sensitive soils, and recovery from OHV-related disturbance to soils and plant life can be very slow. Additionally, Forest Service officials from the Manti-LaSal National Forest in central Utah stated that soil erosion is a major environmental impact associated with OHV use on their forest. Damage to the forest's soils often occurs from OHV use in the late fall (after the first snow), when the ground is wet but not frozen. While officials at the Manti-LaSal National Forest said that these damaged areas could recover in about a year with rehabilitation efforts, the areas often take 4 to 5 years to recover because the forest lacks staff to rehabilitate the lands more quickly. Similarly, Park Service officials in Big Cypress National Preserve said that the environmental impacts primarily associated with OHV use include

disturbance to soils and vegetation, as well as disruption to the hydrology of the wetland ecosystem. These officials further stated that while plant life regenerates fast, ruts from OHV use can persist for more than a decade.

Figure 5: Impacts of OHV Use on Soils and Vegetation in a Variety of Ecosystems



Source: GAO.
Imperial Sand Dunes.



Source: Department of Agriculture's Forest Service.

Manti-LaSal National Forest.



Source: GAO.

Arches National Park.



Source: GAO.

Big Cypress National Preserve.

OHV Use on Federal Lands Occasionally Results in Social and Safety Impacts, Including Fatalities

Social and safety impacts related to OHV use occasionally or rarely occur on federal lands; although, an annual average of about 110 OHV-related fatalities occurred nationwide from fiscal year 2004 through fiscal year 2008 according to data provided by field unit officials. Forest Service and BLM field unit officials reported a higher frequency of OHV-related social and safety impacts than did Park Service field unit officials. The most often reported of these social and safety impacts were conflicts between OHV and nonmotorized users, displacement of nonmotorized users, conflicts with private landowners, and irresponsible OHV operation. For example, Forest Service officials at the Manti-LaSal National Forest said that motorized recreationists have taken over trails managed for nonmotorized use, resulting in conflicts between motorized and nonmotorized users. Additionally, BLM officials at the Prineville District in central Oregon noted that private landowners adjacent to federal lands, frustrated with OHV users driving on their lands, have taken enforcement into their own hands by placing cables and rocks across trails to prevent unauthorized OHV use. BLM officials at the El Centro Field Office also said that many OHV-related violations are due to irresponsible behavior, such as failing to have a safety flag on an OHV or driving an OHV while under the influence of alcohol.

Nearly all reported OHV-related fatalities occurred on Forest Service and BLM lands. Although a majority of field unit officials from all three agencies reported having no OHV-related fatalities from fiscal year 2004 through fiscal year 2008, some field unit officials did report fatalities—a maximum total of about 570 during that time frame at 117 field units. Specifically, Forest Service field unit officials reported about 250 fatalities at 68 field units, BLM about 320 fatalities at 45 field units, and Park Service 5 fatalities at 4 field units. While most field units that had OHV-related fatalities reported 5 or less, a few field unit officials reported between 10 and 75 fatalities.

Agencies' Plans for OHV Management Are Missing Some Key Elements of Strategic Planning At a national level, the Forest Service's and BLM's management of OHVs is broadly guided by department-level strategic plans, as well as by more-specific agency-level plans. These plans, however, are missing some key elements of strategic planning—such as results-oriented goals, strategies to achieve the goals, time frames for implementing strategies, or performance measures to monitor incremental progress—that could improve OHV management. The Park Service has no extensive planning or guidance for managing OHV use, but this absence seems reasonable given that Park Service regulations limit OHV use to only a few units and that OHV use is not a predominant recreational activity on Park Service lands.

The Department of Agriculture's strategic plan includes a goal to protect forests and grasslands. Within the context of this goal, the plan specifically mentions OHV management, identifying unmanaged motorized recreation as one of four key threats to national forests. The plan also identifies a performance measure to develop travel plans—which designate roads, trails, and areas that will be open to motorized travel—for all national forests, with a target of completing these plans by 2010. In addition to this department-level plan, the Forest Service has an agency-level strategic plan that identifies a goal of sustaining and enhancing outdoor recreation opportunities and, in particular, improving the management of OHV use. The Forest Service's strategic plan also reiterates the performance measure identified by the department-level plan—to develop travel management plans for all forests that designate OHV roads, trails, and areas. While the agency plan includes a goal—improving the management of OHV use—and one strategy to achieve the goal—designating motorized roads, trails, and areas—the plan does not identify strategies to address or time frames to implement—other important aspects of OHV management as identified in the executive orders, such as implementing motorized-travel designations on the ground, communicating with the public, monitoring OHV trail systems, or enforcing OHV regulations. Given that the Forest Service has identified unmanaged motorized recreation as one of the top four threats to national forests, the agency's strategic plan provides insufficient direction on this management challenge.

Similar to the Forest Service, BLM's management of OHV use is guided by departmental planning. The Department of the Interior's strategic plan identifies a broad goal of improving recreation opportunities for America, and BLM has two plans expanding on this goal for OHV-related activities. BLM's first plan, the "National Management Strategy for Motorized Off-Highway Vehicle Use on Public Lands," was published in 2001 as a first step in developing a proactive approach to on-the-ground management of OHVs. The second plan, BLM's "Priorities for Recreation and Visitor Services," was developed in 2003 and reconfirmed in 2007 as the agency's plan for recreation management, including OHV management. This recreation plan identifies numerous goals for OHV management, as well as strategies the agency can use to achieve each goal. For example, the plan identifies a goal of improving on-the-ground travel management and identifies three strategies to achieve that goal—conducting trails surveys to determine maintenance needs; implementing best management practices such as signs, maps, and the presence of agency staff in the field; and monitoring social outcomes and environmental conditions along trails. Despite identifying numerous goals and strategies to achieve the goals, BLM's recreation plan does not identify any time frames for implementing

the strategies or any performance measures for monitoring incremental progress. For example, while the agency identifies a strategy of implementing best management practices, the agency identifies neither performance measures that could track the use of best management practices—such as the percentage of routes with signs or the number of field offices with up-to-date maps—nor time frames by which some of these best management practices should be implemented. Without performance measures and time frames, BLM cannot ensure that it is making progress on achieving its goals in a timely manner.

Agencies' Field Units Reported Taking Many Actions, but Additional Efforts Could Improve Communication and Enforcement; a Majority of Units Said They Are Unable to Sustainably Manage OHV Use Actions that agencies' field units reported taking to manage OHV use include supplementing federal funds with authorized outside resources (such as state grants), communicating with and educating the public, enforcing OHV regulations, and engineering and monitoring OHV trail systems. Additional efforts could improve communication with the public about OHV trails and areas and enforcement of OHV regulations. In addition, a majority of field unit officials reported that they cannot sustainably manage existing OHV areas; sustainable management would include having the necessary human and financial resources available to ensure compliance with regulations, educate users, maintain OHV use areas, and evaluate the existing OHV program.

<sup>&</sup>lt;sup>8</sup>BLM officials indicated that they do track the percentage of their lands that have travel plans, but this performance measure is not directly linked to goals or strategies identified in the recreation plan. In addition, the agency has not identified a time frame by which all field units will have travel plans.

Field Units Reported Supplementing Federal Funds with Authorized Outside Resources

Authorized outside resources are being used to manage OHV use, including grants from states and other sources, partnerships with OHV and other user groups, or user fees. Specifically, Forest Service and BLM field unit officials were more likely than Park Service field unit officials to report using authorized outside resources. The most commonly identified sources of such resources for Forest Service and BLM units were grants from states and partnerships with OHV user groups; for the Park Service, the most commonly identified source was user fees or permits (see fig. 6).

Figure 6: Authorized Outside Resources Used to Manage OHV Use, as Reported by Field Unit Officials Percentage of field unit officials 100 90 80 70 60 50 40 30 20 10 0 Grants from other Other Grants from Partnerships with **Partnerships** Federal user fees or OHV user groups with environmental states permits sources and other groups Authorized outside resource Forest Service BLM Park Service

Of the field unit officials who reported supplementing federal funds with authorized outside resources, a majority indicated that additional funding sources amounted to more than 20 percent of their OHV management budgets, with some Forest Service and BLM field unit officials reporting that these sources amounted to more than half their OHV management budgets. At most of the field units we visited with authorized OHV use, agency officials emphasized that outside resources are vital to OHV management. For example, officials at the Cleveland National Forest said that they would not have an OHV management program without the grants

they receive from the state of California. These grants funded the development of the current OHV management program and allowed the national forest to continue restoration, operations, and maintenance activities on their OHV routes. Similarly, Park Service officials at Assateague Island National Seashore in Maryland said that the fees they collect through their OHV permit program fund several year-round staff, and without the fees, they would not be able to support OHV use on Assateague Island. Officials at some of the field units we visited reported that obtaining and using authorized outside resources can require a significant investment of staff time. For example, BLM officials at the Phoenix District said that while volunteers can be a great source of outside resources, their labor is not free. Specifically, BLM officials spend significant time organizing and finding meaningful projects for volunteers that provide both a benefit to BLM and a rewarding experience for the volunteers. Similarly, Forest Service officials at the Cleveland National Forest said that applying for state grants is time-consuming for field unit staff, as some grant applications are about 150 pages long.

While Field Units Reported Taking Actions to Communicate with and Educate the Public, Additional Efforts Could Improve Communication about OHV Areas and Trails

All three agencies reported taking actions to communicate with and educate the public, including posting signs, providing maps, attending meetings with OHV user and other interest groups, and soliciting volunteers for maintenance and peer enforcement activities (see fig. 7). Field unit officials indicated that the actions taken most often were posting signs, attending meetings of OHV user groups and other groups, and providing maps of OHV use areas. Forest Service and BLM field unit officials were more likely than Park Service field unit officials to report taking actions to communicate with and educate the public. Few Park Service field unit officials reported taking similar actions because many actions—such as developing adopt-a-route programs or soliciting volunteers for maintenance—are only appropriate in areas with authorized OHV use.

Percentage of field unit officials 100 90 80 70 60 50 40 30 20 Soliciting OHV Veer 10 0 Education or communication action Forest Service BLM Park Service

Figure 7: Actions Taken to Educate or Communicate with the Public, as Reported by Field Unit Officials

Most field unit officials indicated that they post signs on OHV routes to describe the types of travel permitted on the route. A majority of officials who post signs also said that it is an effective OHV management action. Figure 8 shows a BLM Moab Field Office sign that stopped a vehicle from entering a streambed closed to OHV use.

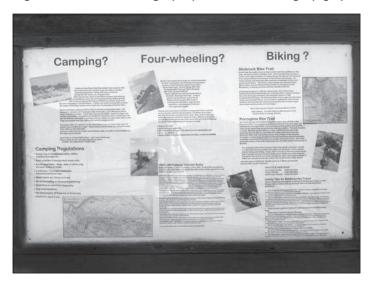
Source: GAO.



Figure 8: A Closure Sign at the BLM Moab Field Office

Only a few field unit officials with authorized OHV use in their units indicated that at least 90 percent of their OHV routes have been signed. About half of the field unit officials whose units authorize OHV use indicated that more than 50 percent of their OHV routes have been signed. For example, at the BLM Moab Field Office, we observed that the Sand Flats Recreation Area was extensively signed, with signs at the entrance to the recreation area, at parking areas, and at trailheads (see fig. 9). By contrast, another OHV use area at the same field office had fewer signs identifying which routes were open or closed (see fig. 10).

Figure 9: An Entrance Sign (left) and Trailhead Sign (right) at the Sand Flats Recreation Area in Moab, Utah





Source: GAO.

Note: These signs inform visitors about available recreation opportunities in the Sand Flats Recreation Area, including OHV use.



Figure 10: An Unsigned OHV Route at the BLM Field Office in Moab, Utah

Source: GAO.

Officials at a few locations we visited also mentioned that, because of theft or vandalism, maintenance of signs has been difficult, and they have developed techniques to limit such vandalism (see fig. 11). For example, BLM Phoenix District officials said that putting American flags on their signs has significantly reduced vandalism. Furthermore, BLM El Centro Field Office officials mentioned that designing signs in conjunction with OHV user groups can also limit vandalism by giving OHV users a stake in maintaining the signs. Similarly, a BLM Prineville District official mentioned that OHV users often respond more positively to signs directing them to where they can ride than to signs saying trails are closed.

Figure 11: Measures Taken by BLM Field Offices to Reduce Sign Vandalism







Source: GAO

Sign created by user groups, BLM El Centro Field Office.

Most field unit officials from the Forest Service and BLM, and some field unit officials from the Park Service, said that they provide maps of OHV routes or use areas. Nevertheless, only some field unit officials with authorized OHV routes in their units indicated that they have maps for more than 90 percent of their OHV routes or areas. About half of field unit officials with authorized OHV routes indicated that they have maps for at least 50 percent of their OHV routes or areas. Officials from two field offices we visited mentioned that developing maps is expensive. To help offset this expense, officials from the BLM Moab Field Office said they are working with private companies to develop maps of the OHV routes; they hope to apply for a state grant to help fund the production of those maps for the public.

Field unit officials from the Forest Service were more likely than those from the BLM or Park Service to indicate that they have maps for at least 50 percent of their OHV routes, possibly because the Forest Service has been developing motor vehicle use maps in response to its 2005 travel management regulation. While the Forest Service has acknowledged that the motor vehicle use map is designed to display a national forest's designated roads, trails, and areas for enforcement purposes, rather than as a visitor map, officials at three forests we visited expressed concerns that the public has difficulties with motor vehicle use maps. In addition,

both OHV user groups and environmental groups have expressed similar concerns. Specifically, a motor vehicle use map does not display all the information that may be found on a visitor map, such as topographic lines; landscape features such as streams; or other trails users might encounter, such as trails closed to motor vehicles (see fig. 12). Also, although Forest Service headquarters officials acknowledged that on-the-ground route markers would be very helpful for OHV users' navigation, they said that national forests have not necessarily erected these types of signs for all OHV routes.

Printed map size: 27 inches Seasonal and Special Vehicle Designations Delta Route number Legend Special designation Dates allowed 402 Roads open to all vehicles, Seasonal designation: All Olathe with seasonal designation highway-legal vehicles, all 05/31-11/14 non-highway-legal vehicles wider than 50 inches 516 Trails open to motorcycles, Seasonal designation with seasonal designation 07/01-09/03 562 Roads open to all vehicles, Seasonal designation: All 30 inches with seasonal designation highway-legal vehicles, all 05/31-11/14 non-highway-legal vehicles wider than 50 inches Norwood Legend Roads open to highway-legal vehicles only: These roads are open only to motor vehicles Inset licensed under state law. Roads open to all vehicles Trails open to all vehicles Trails open to motorcycles only Special vehicle designation: Trails open to wheeled vehicles <= 50 inches : : : Dispersed camping: This symbol is used along with a designated road to indicate that limited cross-country motor vehicle use is allowed within a specific distance of that route, solely for the purpose of dispersed camping. Seasonal designation: This symbol, used in conjunction with one of the other road or trail symbols, indicates that the road or trail is open only during certain portions of the year. Refer to Seasonal and Special Designation Vehicle table 5 Miles

Figure 12: Sample of a Motor Vehicle Use Map from the Uncompangre National Forest, Colorado

Source: GAO analysis of the Uncompangre National Forest motor vehicle use map.

Note: Each route depicted on the map has a number, which ideally corresponds to a route marker on the ground so that OHV users can ensure they are on the correct route. For some routes, including those in red, there are seasonal restrictions regarding when OHVs can be used. In such cases, OHV users must also examine the Seasonal and Special Vehicle Designations table to identify those restrictions.

A majority of field unit officials indicated that they have developed partnerships with outside user groups. Specifically, officials at most field units we visited indicated they had solicited volunteers for OHV route maintenance or education activities. For example, officials at the BLM Phoenix District said they have used volunteers from environmental groups to help rehabilitate areas in the Lower Sonoran Desert National Monument, which is temporarily closed to OHV use. Similarly, officials from the BLM Moab Field Office mentioned partnerships they had developed with local OHV user groups. In assisting with route maintenance, the groups' labor has accounted for more hours than those of the field office's paid recreation staff.

While Field Units Reported Taking a Number of Actions to Enforce OHV Regulations, Additional Efforts Could Improve Enforcement

Forest Service, BLM, and Park Service field units reported taking a number of actions to enforce their OHV regulations. Most field unit officials indicated that they have taken a number of enforcement actions related to OHV use (see fig. 13). For example, nearly all Forest Service and BLM field unit officials and most Park Service officials said their units conduct occasional patrols of OHV routes or open areas. In addition, nearly all Forest Service field unit officials, and most BLM and Park Service officials, said their units issue written warnings or citations for OHV violations. Some field unit officials from all three agencies had also arrested individuals for OHV violations. Law enforcement officials at Forest Service headquarters mentioned that such arrests are often related to other violations, such as driving an OHV while under the influence of alcohol.

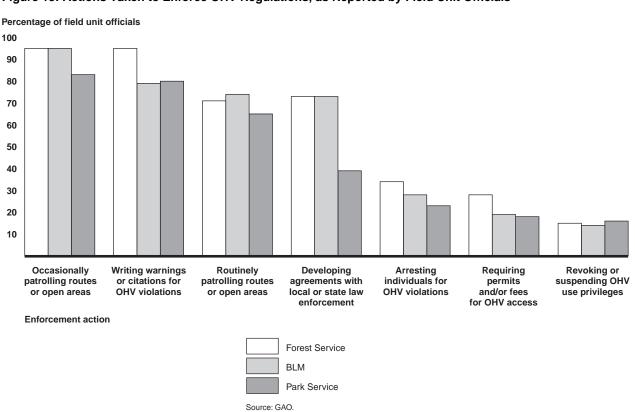


Figure 13: Actions Taken to Enforce OHV Regulations, as Reported by Field Unit Officials

Generally, field unit officials who took enforcement actions rated them as effective (see table 1). The most commonly used, but least effective, OHV enforcement action was conducting patrols of OHV routes or open areas occasionally. By contrast, the most effective action reported by field unit officials was conducting patrols of OHV routes or use areas routinely. Although three of the actions—requiring permits or fees for OHV access, arresting individuals for OHV violations, and revoking or suspending OHV use privileges—were used by only some field units, they were rated as more effective than the most commonly used action. For example, officials from Tonto National Forest said their experience with requiring OHV permits has been positive. The permits required for OHV use in certain areas of the forest are free and provide a lock combination allowing access into certain gated OHV areas for 6 months. Officials observed that requiring free permits increases user accountability, since users do not want to lose their riding privileges. The permits are also acceptable to the public because they are free.

Table 1: Frequency of Enforcement Actions and Field Unit Officials' Assessment of Their Effectiveness Percentage of field unit Percentage of those taking the officials taking the action action who found it effective 53 Occasionally patrolling routes or open areas 92 70 Writing warnings or citations for OHV violations 86 77 Routinely patrolling routes or open areas 70 Developing agreements with local or state law enforcement 64 58 Arresting individuals for OHV violations 29 64 Requiring permits or fees for OHV access 25 75 Revoking or suspending OHV use privileges 16 62

Source: GAO.

Only about half the field unit officials were satisfied with existing fines for OHV violations in their units. BLM field unit officials were less likely to be satisfied with their existing fines than Forest Service or Park Service officials. Additionally, about half the field unit officials indicated that existing fines were insufficient to deter illegal or unsafe OHV use. For example, one BLM official in Utah pointed out that the fine amount for driving in a closed area is \$150. Although this fine is one of the highest fines for an OHV violation in the Moab area, the official said the amount is negligible when compared with the overall expense that most OHV enthusiasts invest in their sport, including the cost of an OHV, the trailer to transport it, and safety gear for the rider.

Consistent with applicable laws, Forest Service and BLM maximum fine amounts for violations of OHV regulations are \$500 and \$1,000, respectively. But fine amounts for specific OHV-related violations are developed at the local level. Specifically, the 94 federal court districts throughout the country maintain fine schedules for violations of federal regulations. The U.S. Attorney in each federal court district is responsible for prosecuting individuals who violate OHV regulations within that district. Local judicial authorities, such as magistrates presiding in those federal court districts, have discretion to increase or decrease the existing fine schedules through local court rules. Consequently, fine amounts for similar OHV violations can vary substantially, depending on which federal court district the violation occurs in. For example, among California's four federal court districts, the fine for disturbing land or wildlife while traveling off road in an OHV ranges from \$50 in the central district up to \$250 in the eastern district. To modify the fine schedule in a particular federal court district, agency officials must work with the relevant U.S. Attorney to petition the local magistrate within that district.

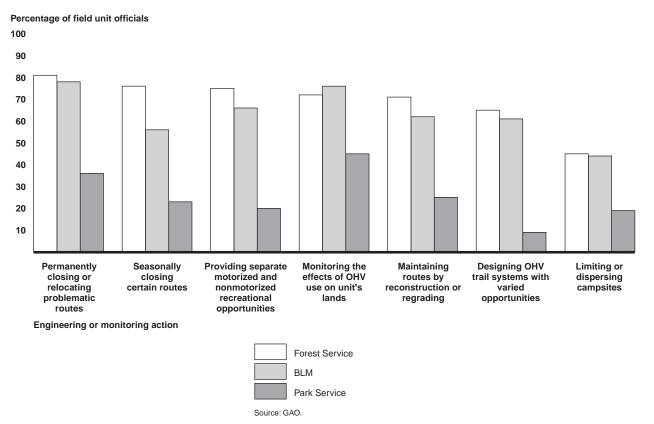
In 2001, BLM proposed comparing fine amounts across various U.S. district courts to determine the range of fines for motorized OHV-related violations and then petitioning the courts to modify the fines where appropriate. BLM officials told us, however, that this analysis has not been conducted at a national level. In addition, officials at some of the field units we visited said they had recently petitioned to change the fine schedules or were planning such a petition in the future. For example, officials from the Forest Service and Park Service in Colorado said that they had successfully petitioned the local magistrate to raise the fines. An Uncompander National Forest official said that the new fine for riding an OHV off a designated route is \$250, which he said is more appropriate.

Some OHV violations are adjudicated in federal court, either because a law enforcement officer requires an OHV rider to make a court appearance or because the OHV rider decides to appeal a citation. Successful prosecution of OHV violations depends both on the availability and willingness of the U.S. Attorney's Office to pursue the case and on the receptiveness of the local magistrate to hearing OHV-related violations. About half of field unit officials indicated that the local U.S. Attorney's Office was responsive to OHV-related violations, and some indicated the same for federal magistrates. For example, a law enforcement officer from the Manti-LaSal National Forest said that he took a local magistrate on a tour of the forest and explained some of the problems the forest is having with unauthorized OHV use. After the tour, law enforcement officers successfully sought restitution payments from OHV violators to remediate OHV-related damage to the forest. By contrast, several officials at field units we visited mentioned that the U.S. Attorney's Office in their area has little time to address OHV-related violations because the office is prosecuting cases involving, for example, terrorism or violent crimes.

Field Units Reported Taking Actions to Engineer and Monitor OHV Trail Systems

A majority of field unit officials indicated that, to help manage OHV use, they use engineering and monitoring actions, such as closing or relocating problematic OHV routes, providing separate motorized and nonmotorized recreational opportunities, monitoring the effects of OHV use, and designing trail systems (see fig. 14). Field unit officials from the Forest Service and BLM were more likely to use engineering and monitoring strategies than field unit officials from the Park Service.

Figure 14: Actions Taken to Engineer or Monitor OHV Trail Systems, as Reported by Field Unit Officials



During our visits to field units, we observed several examples of officials' efforts to close or relocate problematic OHV routes, such as putting up gates or lining OHV routes with rocks (see fig. 15). For example, Curecanti National Recreation Area in Colorado, managed by the Park Service, allows OHV use to access the lakeshore. In some areas, access points are near cultural resources, and officials built a barrier to protect these resources. In two other field units we visited, officials were temporarily closing large areas to remediate existing OHV-related damage. For

example, BLM's Phoenix District Office closed portions of the Lower Sonoran Desert National Monument to OHV use in June 2008. During the closure, officials said they intended to reseed with native plants to remediate OHV routes and reclaim areas disturbed by user-created routes. These officials indicated that much of the remediation work would be done by volunteers, including environmental groups and religious organizations.

Figure 15: Barriers Used to Block Problematic OHV Routes



Curecanti National Recreation Area.



Big Cypress National Preserve.



Arches National Park.



Ochoco National Forest.

Source: GAO.

A majority of field unit officials also indicated that they have provided separate motorized and nonmotorized recreational opportunities. For example, the Siuslaw National Forest, which manages the Oregon Dunes National Recreation Area, has designated separate areas on the dunes for motorized and nonmotorized travel. When developing the boundaries between the motorized and nonmotorized areas, officials said they took

advantage of natural barriers, such as roads and rivers, to make it easier for OHV riders to see which areas are designated as open or closed.

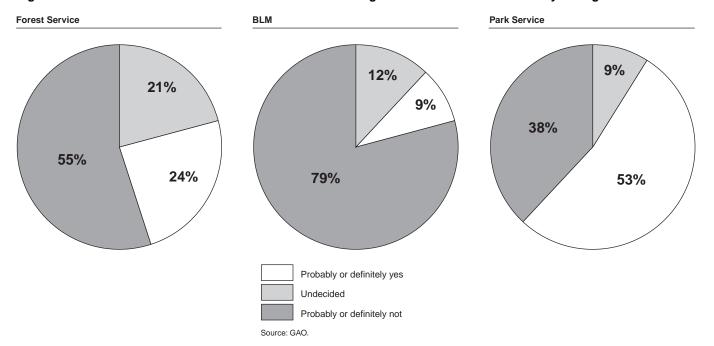
About half of field unit officials indicated that they had designed OHV trail systems to provide varied opportunities, such as loops or training areas. For example, the Deschutes National Forest and BLM's Prineville Field Office in central Oregon worked together to develop several OHV route systems, including the Millican Valley system, with 255 miles of OHV routes, and the East Fort Rock system, with 318 miles of OHV routes. To help OHV users select an appropriate trail, the Forest Service and BLM have also classified each of the trails in these areas on the basis of difficulty. Similarly, BLM's Phoenix District Office developed the Boulders, a designated OHV trail system that includes a 22-mile OHV route through nearby mountains and a 10-acre staging area where OHV users can camp. To improve safety in the staging area, BLM officials developed a design that discourages riding OHVs within the staging area: they engineered the staging area in an irregular shape that reduces riding in that area and also provided a training area for children.

A majority of field unit officials reported that they have monitored the effects of OHV use on their land, including the effects of noise or impacts on soils, water, air, and habitats. Only a few of the field units we visited, however, indicated that their procedures for monitoring went beyond casual observation of OHV impacts. For example, officials from the Manti-La Sal National Forest monitor OHV impacts by surveying the condition of existing trails, patrolling trail systems, and mapping new unauthorized trails. These officials are developing a database that will include qualitative information about user-created trails, such as type of off-road travel, related impacts, how officials addressed those impacts, and the measures officials would need to take to close an unauthorized route. These officials stated that compiling this information in a database will enable them to evaluate data, make decisions, and take appropriate action.

A Majority of Field Units Indicated They Cannot Manage Existing OHV Areas in a Sustainable Manner Although field units are taking many management actions, a majority of field unit officials indicated that they cannot sustainably manage existing OHV areas; sustainable management would include having the necessary human and financial resources available to ensure compliance with regulations, educate users, maintain OHV use areas, and evaluate the existing OHV program. Most field unit officials who said they could not sustainably manage their existing OHV areas indicated that they have insufficient resources for equipment or staff for management and enforcement. Field unit officials from BLM were more likely than Forest

Service or Park Service officials to indicate that they could not sustainably manage their existing OHV use (see fig. 16).

Figure 16: Field Unit Officials' Assessment of Whether Existing OHV Areas Can Be Sustainably Managed



Note: Percentages represent field unit officials from each agency who reported whether they could sustainably manage their existing OHV areas.

About half the national forests that have published motor vehicle use maps, as required by the travel management rule, indicated that they could not sustainably manage the OHV route system that they designated. For example, an official from the Uncompander National Forest said that the forest's designated system of trails cannot be sustainably managed. The official further stated that the public's priority for OHV use is to maintain their long-established access to the forest, and they do not want the Forest Service to designate a sustainable system if doing so means losing long-established routes.

A few field unit officials reported that their unit has a full-time OHV manager to, among other things, oversee OHV use, coordinate volunteers, and apply for state grants. Field units with a full-time OHV manager were more likely to report that they could sustainably manage their existing OHV use. Specifically, these field units reported taking more actions to manage OHV use compared with field units without a full-time OHV

manager. For instance, field units with full-time OHV managers tend to leverage authorized outside resources, such as state grants, more extensively than units without full-time OHV managers. One BLM official said that dedicating staff to managing OHV use full-time could provide a benefit to overall land management. Specifically, he said the recreation planner at his unit has a wide range of responsibilities, including managing OHVs, permitting, signs, maintenance, campgrounds, and interpretation, and cannot do it all very effectively. He said that OHV management is a full-time position in itself, but since his unit has not been able to hire someone full-time, OHV management gets attention only as time allows.

#### Agencies Reported Facing Many Challenges in Managing OHV Use

Numerous issues, including insufficient staffing levels and financial resources, as well as enforcement of OHV regulations, were identified as challenges by field unit officials. Generally, a larger proportion of Forest Service and BLM field unit officials than Park Service field unit officials rated OHV management issues as great challenges<sup>9</sup> (see table 2).

Table 2: Various Issues Identified as a Great Challenge, by Agency

	Percentage of field unit officials			
OHV management issue	Forest Service	BLM	Park Service	Average
Staff resources for enforcement	83	81	48	73
Financial resources	76	76	41	67
Enforcement	71	74	42	64
Staff resources for management	73	76	32	63
Managing varying expectations about how federal lands should be used	62	63	39	56
Collecting reliable data on the effects of OHV use	58	69	38	56
Changing long-established OHV use patterns	55	70	33	54
Installing and maintaining signs	51	71	22	50

Source: GAO.

Staff resources for enforcement, such as a limited number of officials and limited financial resources, were reported as a great challenge by most

<sup>&</sup>lt;sup>9</sup>In this section, the term "great challenge" includes field units officials who responded that a challenge was either great or very great.

Forest Service and BLM field unit officials and by about half of Park Service officials. BLM headquarters officials explained that BLM has 195 uniformed law enforcement officers, which is an average of about 1 officer for every 1.2 million acres of land. For example, an official from BLM's Grand Junction Field Office in Colorado told us that a single law enforcement officer patrols 1.3 million acres and that OHV users are aware of this minimal law enforcement presence. Although officials at some field units we visited said they would like to increase the number of law enforcement officers, they explained that even when they have approval for additional officers, they do not have enough funding to fill the positions. Officials from BLM's Grand Junction Field Office also noted that law enforcement officers are the most expensive component of the workforce, because they require background checks, security clearances, extensive training, and expensive equipment such as firearms.

Forest Service and BLM officials said they have attempted to mitigate their insufficient number of law enforcement officials. For example, the Forest Service has developed a Forest Protection Officer program, which allows non-law-enforcement staff to fulfill some law enforcement functions, such as issuing warnings and citations. Similarly, BLM officials said they attempted to mitigate enforcement challenges at particular BLM field offices by bringing in additional law enforcement officers from other BLM field offices, as well as from states and nearby counties. For example, BLM's El Centro Field Office officials said that they try to bring in about 100 additional federal and local law enforcement officers for busy holiday weekends. On the other hand, a BLM law enforcement officer from the Grand Junction Field Office said that his deployment to the El Centro Field Office led to gaps in enforcement in Grand Junction during such weekends.

A limited number of staff for OHV management was identified as a great challenge for a majority of Forest Service field unit officials, most BLM field unit officials, and some Park Service officials. Field staff who work on OHV issues work in various capacities, such as managing volunteers, creating route systems, maintaining routes, educating users, and writing state grant applications, but most units do not have such staff. For example, at BLM's Phoenix District Office, OHV management staff maintain an ambassador program, which coordinates volunteers to educate users and promote safe, sustainable OHV use in the area. Managing this program requires one full-time manager plus 10 to 20 percent of the time of two additional staff. Officials from four field units we visited stated that although volunteers and partnerships can enhance OHV management, taking advantage of their labor requires a significant

investment of management staff resources. Officials from two of the field units that we visited noted that, with additional OHV management staff, they could better leverage resources such as volunteers and state grants.

Most BLM and Forest Service units reported insufficient financial resources as a great challenge to managing OHV use in their units, although only some Park Service units reported the same. Similarly, a majority of the field units we visited also cited insufficient financial resources as a challenge. For example, Forest Service officials from the Cleveland National Forest said that even though recreational OHV use has increased, funds allocated for recreation have failed to keep pace.

In addition to staffing and financial challenges, a majority of field unit officials cited enforcement of OHV regulations as a great challenge as well. One reason for this challenge may be that law enforcement officers have many responsibilities including, among others, enforcing OHV regulations, controlling gang activity, preventing illegal drug activities, and responding to impacts on resources and public safety from illegal smuggling activities along the U.S. border. For example, BLM officials at the Lower Sonoran Desert National Monument said that border issues, including the smuggling of illegal drugs and people, have placed increased demands on law enforcement officers, reducing their capacity to deal with OHV recreation issues. Additionally, enforcement may be a challenge where a unit's lands are difficult for law enforcement officers to reach. For example, Park Service officials from Assateague Island National Seashore said that getting to portions of their OHV area is difficult because law enforcement officers must travel 12 miles over sand. Similarly, BLM officials at the Moab Field Office stated that because of the distance a law enforcement officer must travel, it can take several hours just to get to certain OHV areas in their unit, making enforcement in those areas difficult.

Another challenge reported by agency officials in managing OHV use is variation in laws pertaining to OHV safety. Specifically, while agencies set minimum safety standards in their regulations—for example, by requiring vehicles to have brakes, spark arresters, and lights for night use—the regulations provide that state safety laws, as well as licensing and registration laws, generally apply to motorized vehicles on federal lands. For example, federal Forest Service regulations specify that riders may not operate a vehicle (1) without a valid license as required by state law, (2) in violation of any state noise emission standard, or (3) in violation of any state law regulating the use of vehicles off roads. But state laws regulating the use of OHVs vary significantly. For example, Utah generally prohibits

children under 8 years old from riding OHVs on public land and requires children 8 to 15 years old to successfully complete an education course. In contrast, neighboring Colorado has not set minimum age requirements for riding OHVs on public land. A few units have created their own, areaspecific rules for OHV use that supersede state laws. For example, BLM's El Centro Field Office has special rules for OHV riders on the Imperial Sand Dunes. These rules require that vehicles have a flag at least 8 feet from the ground so that other riders can more easily see oncoming vehicles. In addition, the rules set speed limits in camping areas and prohibit other dangerous activities.

An additional challenge faced by a majority of BLM officials and about half of Forest Service officials is installing and maintaining signs. For example, field unit officials said that signs are often shot at, pulled out, or driven over and that signs must frequently be replaced (see fig. 17). Officials at Forest Service headquarters told us that signs at some units are vandalized or taken down less than 48 hours after installation.

Figure 17: A Vandalized BLM OHV Sign (left) and a BLM Official Replacing a Pulled-Out Sign (right)





Source: GAO.

Other challenges identified by field unit officials include managing varied public expectations about how public lands should be used and altering long-established OHV use patterns. A majority of Forest Service and BLM field unit officials, and some Park Service field unit officials, reported that managing varying expectations about how federal lands should be used is a great challenge. For example, BLM officials from the Moab Field Office said they received public input at 11 meetings when developing their recently finalized resource management plan, with both OHV user groups and environmental groups opposing aspects of the plan. Generally, user groups sought to open more areas to cross-country travel, while environmental groups generally opposed the designation of routes in areas they contended were not suitable for OHV use. Additionally, even within user groups, expectations can vary. For example, a BLM official from the Grand Junction Field Office said that while some hunters expect to use their OHVs to retrieve game, other hunters prefer that OHVs not be used, so that game are not scared away by the sound of OHVs.

Finally, a majority of BLM field unit officials, about half of Forest Service field unit officials, and some Park Service field unit officials reported that altering long-established OHV use patterns is challenging. For example, Park Service officials at Big Cypress National Preserve said that the use of swamp buggies predates the 1974 creation of the preserve. Swamp buggies have been used for generations to travel to in-holdings and hunting camps, which are otherwise inaccessible because of deep mud, water, and dense foliage. According to Park Service officials, as OHV use has become more popular in the preserve, officials have recognized the need for comprehensive OHV management, yet changing long-established use patterns has been difficult.

#### Conclusions

Over the past 5 years, OHV use has increased on federal lands and has emerged as a national issue. Federal land management agencies have only recently begun to respond to this trend by revising their plans and how they manage OHV use, but they are having to do so in an environment of constrained budgetary and staff resources and other competing management priorities. Although they reported taking a variety of actions to manage OHV use in this environment, agency field unit officials reported that they cannot sustainably manage their OHV route systems. The likelihood that the Forest Service and BLM, in particular, will succeed in their efforts to enhance management of OHV use could be increased by improving the agencies' planning to include key strategic planning elements. Such enhancements could also help the agencies to more effectively address and manage some of the challenges that their field unit officials reported in managing OHV use on their lands, such as insufficient staffing levels and financial resources. In addition, developing more userfriendly maps and signs for their route systems and seeking more appropriate fines to deter violations of OHV regulations could provide all federal land users, including OHV users, a more enjoyable, quality experience while also potentially lessening environmental, social, and safety impacts resulting from OHV use.

### Recommendations for Executive Action

To help provide quality OHV recreational opportunities while protecting natural and cultural resources on federal lands, we recommend that:

 the Secretary of Agriculture direct the Chief of the Forest Service to identify additional strategies to achieve the agency's goal of improving OHV management, as well as time frames for carrying out the strategies and performance measures for monitoring incremental progress; and • the Secretary of the Interior direct the Director of BLM to enhance the agency's existing "Priorities for Recreation and Visitor Services" by establishing performance measures and time frames for carrying out its stated goals for OHV recreation.

Additionally, to improve communication with the public and enhance law enforcement efforts regarding OHV use on federal lands, we recommend that the Secretaries of Agriculture and the Interior direct the Forest Service and BLM, respectively, to take the following actions:

- enhance communication with the public about OHV trails and areas through, for example, developing user-friendly signs and maps to improve visitors' experiences; and
- examine fine amounts across various U.S. district courts to determine the range of fines for OHV-related violations and petition appropriate judicial authorities to make modifications where warranted.

### Agency Comments and Our Evaluation

We provided the Departments of Agriculture and the Interior with a draft of this report for review and comment. The Departments of Agriculture and the Interior generally agreed with our findings and recommendations; their written comments appear in appendixes II and III, respectively. The departments also provided technical comments that we incorporated into the report as appropriate.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies to interested congressional committees, the Secretaries of Agriculture and the Interior, the Chief of the Forest Service, the Director of the Bureau of Land Management, the Director of the National Park Service, and other interested parties. The report will also be available at no charge on the GAO Web site at <a href="http://www.gao.gov">http://www.gao.gov</a>.

If you or your staff have any questions regarding this report, please contact me at (202) 512-3841 or nazzaror@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix IV.

Robin M. Nazzaro

Director, Natural Resources and Environment

Robin M. Nazzaro

## Appendix I: Objectives, Scope, and Methodology

The objectives of our review were to determine (1) the trends in and status of off-highway vehicle (OHV) use on federal lands managed by the Department of Agriculture's Forest Service and the Department of the Interior's Bureau of Land Management (BLM) and National Park Service (Park Service) from fiscal year 2004 through fiscal year 2008, as well as the reported environmental, social, and safety impacts of OHV use; (2) the agencies' strategic planning for managing OHV use on federal lands; (3) actions taken by the agencies' field units in managing OHV use on their lands; and (4) current OHV management challenges facing these agencies. For this report, we defined an OHV, also commonly referred to as an offroad vehicle, as any motorized vehicle capable of or designed for crosscountry travel or travel immediately on or over land. Examples of OHVs include but are not limited to 4 x 4 street-legal vehicles; all-terrain vehicles such as three-wheelers, four-wheelers, and side-by-sides; rock crawlers; sand rails; dune buggies; swamp buggies; and off-road motorcycles. We did not include personal watercraft, snowmobiles, aircraft, official agency use of OHVs, or use of street-legal vehicles on paved roads.

To address our objectives, we collected and analyzed OHV-related documentation, including applicable executive orders and agency plans, regulations, and guidance. We also interviewed officials from Forest Service, BLM, and Park Service headquarters. To gain external perspective, we interviewed national headquarters representatives of various OHV user and environmental groups, including the Blue Ribbon Coalition, National Off-Highway Vehicle Conservation Council, Motorcycle Industry Council, Off-Road Business Association, Tread Lightly!, The Wilderness Society, and Center for Biological Diversity. In addition, we visited selected Forest Service, BLM, and Park Service field units and interviewed agency officials, and OHV user and environmental group representatives near some of those units, to obtain a better understanding of ongoing agency OHV management efforts. These field units, located in Arizona, California, Colorado, Florida, Maryland, Oregon, and Utah, were selected, using a nonprobability sample, on the basis of their geographic and ecological diversity. Table 3 lists these sites and the groups we interviewed.

Table 3: Forest Service, BLM, and Park Service Field Units and OHV User and Environmental Group Representatives Selected for Site Visits and Interviews, by Location

Location	Agency	Unit	OHV user and environmental groups	
Arizona	Forest Service	Tonto National Forest	Arizona Trail Riders, Arizona Wilderness Coalition, The	
	BLM	Hassayampa Field Office	Wilderness Society (Southwest regional office), Center fo Biological Diversity, Grand Canyon Wildlands Council, Sky Island Alliance, and Sierra Club (Grand Canyon chapter)	
	BLM	Kingman Field Office		
	BLM	Lower Sonoran Field Office		
	Park Service	Sunset Crater Volcano, Wupatki, and Walnut Canyon National Monuments		
California	Forest Service	Cleveland National Forest	N/A	
	BLM	El Centro Field Office (Imperial Sand Dunes Recreation Area)	•	
Colorado	Forest Service	Grand Mesa, Uncompahgre, Gunnison national forests	N/A	
	BLM	Grand Junction Field Office	•	
	Park Service	Curecanti National Recreation Area	•	
Florida	Park Service	Big Cypress National Preserve	Florida Trail Riders and Sierra Club (Florida chapter)	
	Park Service	Everglades National Park	•	
Maryland	Park Service	Assateague Island National Seashore	N/A	
Oregon	Forest Service	Deschutes-Ochoco National Forest and the Crooked River National Grassland	American Hiking Society, Central Oregon Motorcycle and ATV Club, Friends of Anne's Butte, Friends of McKay,	
	Forest Service	Siuslaw National Forest (Oregon Dunes National Recreation Area)	Ochoco Trail Riders, and Sierra Club (Oregon chapter)	
	BLM	Prineville District Office	•	
Utah	Forest Service	Manti-LaSal National Forest	Red Rock Forests, Ride with Respect, and Southern Utah Wilderness Alliance	
	BLM	Moab Field Office		
	Park Service	Arches National Park		
	Park Service	Canyonlands National Park	•	

Source: GAO.

Because of the lack of historical and nationwide information about OHV use on federal lands, we also developed and administered a Web-based survey to gather land managers' perspectives on the management and use of OHVs from fiscal year 2004 through fiscal year 2008 on Forest Service, BLM, and Park Service lands. The survey was administered to the entire population of National Forests and BLM field office units and to Park Service field units most likely to have OHV use, whether authorized or

unauthorized. The survey included questions about the perceived trends in OHV use; potential environmental, social, and safety impacts of OHV use; how OHVs are being managed; the enforcement of OHV regulations; and challenges facing federal land managers in addressing OHV use.

To develop the survey questions, we reviewed several national studies and a related GAO report<sup>2</sup> to identify issues pertaining to OHV use on federal lands. We also analyzed agency documentation to identify the proper terminology used by the Forest Service, BLM, and Park Service. Furthermore, on the basis of interviews with officials at field units we visited, we identified issues related to OHV management. Finally, we examined related surveys administered to these agencies to identify relevant issues pertaining to OHV use on federal lands.

The survey was pretested with potential respondents from national forests, BLM field offices, and Park Service units to ensure that (1) the questions were clear and unambiguous, (2) the terms we used were precise, (3) the survey did not place an undue burden on the agency officials completing it, and (4) the survey was independent and unbiased. In addition, the survey was reviewed three times by two separate internal, independent survey experts. We took steps in survey design, data collection, and analysis to minimize nonsampling errors. For example, we worked with headquarters and field officials at all three agencies to identify the appropriate level of analysis—congressionally designated forests and grasslands, national park units, and BLM field offices—and the appropriate survey respondents—field-level OHV managers (or if there was no OHV manager, the field-level recreation manager). To minimize measurement error that might occur from respondents interpreting our questions differently from our intended purpose, we extensively pretested the survey and followed up with nonresponding units and with units whose responses violated certain validity checks. Finally, to eliminate

<sup>&</sup>lt;sup>1</sup>The selected park units included all lakeshores, seashores, national recreation areas, and preserves, and almost all parks and monuments. Fourteen parks and monuments were excluded for one of the following reasons: the unit is in a U.S. territory (4 units); is inaccessible to OHVs, either because it is in the middle of an urban area or on an island (8); is part of a larger unit already surveyed (1); or is managed by state agencies rather than the Park Service (1). The units that were selected were the most likely to have OHV use and comprise about 97 percent of the total Park Service land area. The final list of Park Service units included in the survey was vetted with Park Service officials.

<sup>&</sup>lt;sup>2</sup>GAO, Federal Lands: Information on the Use and Impact of Off-Highway Vehicles, GAO/RCED-95-209 (Washington, D.C.: Aug. 18, 1995).

data-processing errors, we independently verified the computer program that generated the survey results. Our results are not subject to sampling error because we administered our survey to all OHV-relevant units of all three agencies.

The survey was conducted using self-administered electronic questionnaires posted on the World Wide Web. We sent e-mail notifications to 480 respondents (177 national forest units, 136 BLM field offices, and 167 selected Park Service units). We also e-mailed each potential respondent a unique password and username to ensure that only members of the target population could participate in the survey. To encourage respondents to complete the survey, we sent an e-mail reminder to each nonrespondent about 2 weeks after our initial e-mail message. The survey data were collected from October 2008 through February 2009. We received a total of 478 responses that accounted for the 480 units surveyed, for an overall response rate of 100 percent. <sup>3</sup> This "collective perspective" obtained from each of the agencies helps to mitigate individual respondent bias by aggregating information across the range of different viewpoints. Additionally, to encourage honest and open responses, in the introduction to the survey, we pledged that we would report information in the aggregate and not report data that would identify a particular unit. For purposes of characterizing the results of our survey, we identified specific meanings for the words we used to quantify the results, as follows: "a few" means between 1 and 24 percent of respondents, "some" means between 25 and 44 percent of respondents, "about half" means between 45 and 55 percent of respondents, "a majority" means between 56 and 74 percent of respondents, "most" means between 75 and 94 percent of respondents, and "nearly all" means 95 percent or more of respondents. This report does not contain all the results from the survey; the survey and a more complete tabulation of the results are provided in a supplement to this report (see GAO-09-547SP).

We conducted this performance audit from February 2008 to June 2009, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence

<sup>&</sup>lt;sup>3</sup>Although two surveys were sent out, only one survey was completed for the Rogue River-Siskiyou National Forest, which covered all the land managed by both forests. Similarly, although two surveys were sent out, only one survey was completed for the Wallowa-Whitman National Forest, which covered all the land managed by both forests.

Appendix I: Objectives, Scope, and Methodology
obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

## Appendix II: Comments from the Department of Agriculture

USDA United States
Department of
Agriculture

Forest Service Washington Office 1400 Independence Avenue, SW Washington, DC 20250

File Code: 2350

Date:

JUN 1 9 2009

Ms. Robin Nazzaro, Director Government Accountability Office Natural Resources and Environment 441 G Street, N.W. Washington, D.C. 20548

Dear Ms. Nazzaro:

We appreciate the opportunity to review and comment on the draft Government Accountability Office (GAO) Report, "Enhanced Planning Could Assist Agencies in Managing Increased Use of Off-Highway Vehicles." The Agency generally agrees with the report and recommendations, but would like you to consider the following substantive comments.

Page 36, Recommendation 1: GAO recommends that the Secretary of Agriculture direct the Chief of the Forest Service to identify additional strategies, timeframes, and performance measures to achieve the Agency's goal of improving off-highway vehicle (OHV) management. On page 15, GAO identifies other aspects of OHV management included in Executive Orders 11644 and 11989 that are not addressed in the Forest Service Strategic Plan. These include implementing motor vehicle designations, communicating with the public, monitoring OHV trail systems, and enforcing OHV regulations.

Achieving the objectives of route and area designations for motor vehicle use involves two aspects—planning and implementation. The Forest Service feels that the existing strategy, timeframe, and performance measures are appropriate for travel management planning. The Forest Service also agrees that implementing motor vehicle designations, communicating with the public, monitoring OHV trail systems, and enforcing OHV regulations are important aspects of OHV management to address strategically at the national level. The Agency's preferred method is development of a national level plan specifically addressing OHV management. While the Agency will soon provide guidance to its field staff through the dissemination of an implementation guide, in the future the Agency will also develop a strategy, timeframes, and performance measures for implementation. Developing strategies and timeframes for this plan will be straightforward. Identifying new performance measures will offer a challenge due to the situational differences, at the local level, and the added costs to collect that information in a way that is accessible and meaningful at the national level.

Page 36, Recommendation 2: GAO recommends that the Secretary of Agriculture direct the Forest Service to enhance communication with the public about OHV trails and areas through, for example, developing user-friendly signs and maps to improve visitors' experiences.

The Forest Service agrees that it needs to continue to provide information to the public about OHV opportunities and that communication with the public can always be improved. The Sign and Poster Guidelines for the Forest Service include a chapter on travel management signing that addresses sign placement and installation, and includes sign drawings. This is a very helpful resource when identifying the signs that are needed to improve visitors' experiences.



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Ms. Robin Nazzaro, Director

2

Motor vehicle use maps (MVUMs) will display all National Forest System roads, National Forest System trails, and areas on National Forest System lands that are open to the public for OHVs and other motor vehicles. Once the MVUM is produced, notice of its availability is widely disseminated. The Forest Service is continually assessing and enhancing the quality of the MVUM, including its "user-friendliness." In October of 2008 the Agency made a number of improvements to the MVUM guidance, including adding the following:

- Symbols for significant points of interest (campgrounds, picnic areas, mountain peaks, and Forest Service offices) to help orient the visitor.
- The ability to show township, range, and section lines.
- Symbols to differentiate among interstate highways, State and U.S. highways, and other public roads.
- A symbol for political boundaries, such as county lines.
- · Better guidance on producing a high quality map.

The Forest Service, through its Geospatial Services and Technology Center, has developed a class for employees on "Policies and Procedures to Create the U. S. Forest Service MVUM." We expect that the quality of the MVUMs will continue to improve as more employees take this class

Page 30, first complete paragraph, first sentence: GAO states, "About half of the national forests that have completed the travel management planning required by the travel management rule indicated that they could not sustainably manage the system that they designated."

This sentence should be reworded slightly to be consistent with the wording in the survey, which we believe provided the basis for this statement. The phrase "current OHV route systems and/or open areas," which appears in the survey, is not the same as "the system that they designated" which appears in the draft report. Designated route systems include not only OHV route systems and/or open areas, but also routes that are designed for motor vehicles other than OHVs, such as passenger cars. More accurate wording would be as follows: "About half of the national forests that have published motor vehicle use maps as required by the travel management rule indicated that they could not sustainably manage their current OHV route systems and/or open areas."

The Agency appreciates the professionalism of the GAO employees with whom we worked in Washington, as well as in the field. The information in the report will be valuable in helping the Forest Service continue to improve our management of OHV use. If you have any additional questions or concerns, please contact Sandy T. Coleman, Forest Service Assistant Director for GAO/Office Inspector General (OIG) Audit Liaison Staff, at 703-605-4699.

Sincerely,

ABIGAIL R. KIMBELL

Chief

cc: Deidre S StLouis, Sandy T Coleman

## Appendix III: Comments from the Department of the Interior



#### United States Department of the Interior

OFFICE OF THE SECRETARY WASHINGTON, D.C. 20240

JUN 1 2 2009



Ms. Robin Nazzaro
Director, Natural Resources and Environment
Government Accountability Office
441 G Street, N.W.
Washington, D.C. 20548-001

Dear Ms. Nazzaro:

Thank you for the opportunity to review and comment on the Government Accountability Office (GAO) draft report entitled Federal Lands: Enhanced Planning Could Assist Agencies in Managing Increased Use of Off-Highway Vehicles (GAO-09-509).

The Department of the Interior appreciates the diligent work of the team and generally agrees with the draft report findings and recommendations. The GAO accurately and fairly points out that as Off-Highway Vehicle (OHV) use continues to grow, federal land managers are and will be significantly challenged by insufficient staffing levels and financial resources available for effective and sustainable OHV management and enforcement. The draft report also acknowledges the importance of recreation fee collection and retention in providing critical resources to effectively manage OHVs.

The report makes three specific recommendations for improvement to the agency: 1) enhance the agency's existing "Priorities for Recreation and Visitor Services" by establishing performance measures and timeframes to carry out its stated goals for OHV recreation; 2) enhance communication with the public about OHV trails and areas by employing a variety of communication approaches, including developing user-friendly signs and maps, and fostering partnerships with OHV organizations and other user groups; and 3) examine fine amounts across various U.S. District Courts to determine the range of fines for OHV-related violations and petition appropriate judicial authorities to make modifications where warranted.

In response to recommendation 1, the Bureau of Land Management (BLM) acknowledges the need for additional performance measures and timeframes to track progress. While the BLM already has strategic plan performance measures and travel plan implementation timeframes in place, we are in the process of developing additional measures.

The BLM concurs with recommendation 2, and we are currently drafting our Comprehensive Travel and Transportation Management (CTTM) manual and handbook to provide detailed guidance to our field offices on how to improve travel planning, signing, mapping and travel information, including the use of web sites to provide visitor information and maps. The pending CTTM manual and handbook will address planning and management of all modes of travel and all public access needs including administrative, commercial permitted activities,

2 emergency services and fire access, rights-of-ways management, as well as recreational activities. The BLM will continue to forge even more partnerships and alliances with a variety of user groups, local governments, and other land management agencies to promote responsible, ethical use of the public lands. With respect to GAO recommendation 3, the BLM will continue its ongoing efforts to examine fine amounts across various U.S. district courts to determine the range of fines for OHV-related violations to improve consistency and determine appropriate penalty amounts. In certain circumstances, the BLM will petition the appropriate judicial authorities to make modifications to fines where warranted. We are enclosing additional technical comments on the draft report. We hope the comments will assist you in preparing the final report. If you have any questions about this response, please contact Bob Ratcliffe, Chief, Division of Recreation and Visitor Services at 202-452-5040 or LaVanna Stevenson-Harris, BLM Audit Liaison Officer, at 202-785-6580. Sincerely, Noth Ned Farquhar Acting Assistant Secretary Land and Minerals Management Enclosure

# Appendix IV: GAO Contact and Staff Acknowledgments

GAO Contact	Robin M. Nazzaro, (202) 512-3841, or nazzaror@gao.gov
Staff Acknowledgments	In addition to the individual named above, David P. Bixler, Assistant Director; Kevin Bray; Ellen W. Chu; Melinda Cordero; Emily Eischen; Ying Long; Janice Poling; Kim Raheb; Matthew Reinhart; Chris Riddick; and Rebecca Shea made key contributions to this report.

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