

June 2003

BLM PUBLIC
DOMAIN LANDS

Volume of Timber
Offered for Sale Has
Declined Substantially
Since Fiscal Year 1990





Highlights of [GAO-03-615](#), a report to Congressional Requesters

Why GAO Did This Study

For several decades, debate over how to balance timber sales with resource protection and recreational use on federally managed lands has been at the heart of controversy surrounding federal land management. The Department of the Interior's Bureau of Land Management (BLM) is one of the federal agencies that manages some of the nation's forests—about 53 million acres—under its public domain forestry management program and offers timber for sale from these lands.

With regard to BLM's offerings of timber for sale, congressional requesters asked GAO to determine (1) the statutory framework for BLM timber sales, (2) the trend in BLM timber volume offered for sale, and (3) factors contributing to any observed trends.

GAO reviewed laws, regulations, and BLM policy governing BLM timber sales. GAO obtained and reviewed data on the volumes and composition of BLM timber sale offerings from fiscal years 1990 through 2002 and met with agency officials and others to identify factors affecting timber sale offering trends and their importance.

www.gao.gov/cgi-bin/getrpt?GAO-03-615.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Barry T. Hill at (202) 512-3841 or hillbt@gao.gov.

BLM PUBLIC DOMAIN LANDS

Volume of Timber Offered for Sale Has Declined Substantially Since Fiscal Year 1990

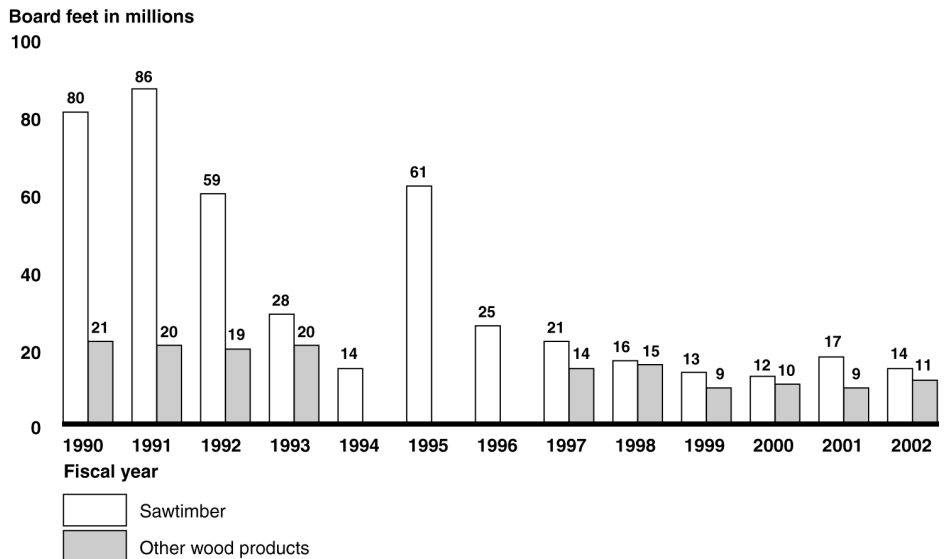
What GAO Found

A variety of land management and other environmental laws provide the statutory framework for timber sales on BLM public domain land. In particular, the Federal Land Policy and Management Act permits timber sales as one of several uses for BLM public lands. Timber sales also must comply with other environmental laws, such as the National Environmental Policy Act, the Endangered Species Act, and the Clean Water Act.

From 1990 to 2002, the volume of timber offered for sale by BLM declined about 74 percent. Declines were experienced for each of the timber's components—sawtimber (trees or logs suitable for conversion into lumber) and other wood products (small logs used to make firewood, posts, and poles). Consequently, in 2002, the proportion of sawtimber in the total volume offered for sale was less than it was in 1990.

The principal factor contributing to the decline in timber volume was the governmentwide shift in forestry program emphasis beginning in the late 1980s from timber production to enhancing forest ecosystem health. This shift was based on the need to provide more protection for nontimber resources and to place a greater emphasis on the removal of smaller trees to reduce the risks of insects, fire, and disease. As a result, according to BLM officials, timber became a by-product rather than the focus of BLM's management of its public domain forests.

BLM Public Domain Timber Offered for Sale by Type, Fiscal Years 1990 through 2002



Source: BLM.

Note: BLM could not provide volume data for other wood products for fiscal years 1994 through 1996.

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Abbreviations

| | |
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| BLM | Bureau of Land Management |
| FLPMA | Federal Land Policy and Management Act of 1976 |

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G A O

Accountability * Integrity * Reliability

United States General Accounting Office
Washington, DC 20548

June 19, 2003

Congressional Requesters:

Currently, federally managed forests provide an estimated 7 percent of the nation's domestically produced timber and wood products while serving several other functions, such as providing habitat for over a third of all threatened and endangered species, serving as the nation's single largest source of water, and providing increasingly popular recreational destinations. For several decades, debate over how to balance timber sales with resource protection and recreational use on federally managed lands has been at the heart of controversy surrounding federal forest land management. While the Forest Service manages most federal forest lands, the Department of the Interior's Bureau of Land Management (BLM) also manages some of these federal forests—encompassing about 53 million acres—located primarily in 12 western states, under its public domain forestry management program. BLM refers to lands under this program as public domain lands.

In relation to BLM's offerings of timber for sale under its public domain forestry management program, you asked us to determine (1) the statutory framework for BLM timber sales, (2) the trend in BLM timber volume offered for sale, and (3) factors contributing to any observed trends. To meet these objectives, we reviewed laws, regulations, and policy documents governing BLM's timber sales; obtained and reviewed information on the volumes and composition of timber offered for sale from BLM's annual statistical report and its timber sale information system; and met with BLM headquarters officials and contacted several BLM state and field offices to identify the factors and their importance.

Results in Brief

BLM's timber sales under its public domain forestry management program are governed by a statutory framework that consists of a land management statute and other environmental laws. The Federal Land Policy and Management Act of 1976—the principal law under which BLM manages its public domain forestry management program—requires BLM to manage its public lands in accordance with the principles of multiple use and sustained yield, that is, at levels that can be achieved and maintained in perpetuity. The act gives BLM broad management discretion over how it emphasizes one use in relation to another. BLM's timber sales on public domain lands must also comply with the requirements of other

environmental laws, including the National Environmental Policy Act, the Endangered Species Act, and the Clean Water Act.

The total volume of timber offered for sale from BLM's public domain lands has declined from 101 million board feet of timber in fiscal year 1990 to 26 million board feet in 2002.¹ BLM's offerings consist of two components—sawtimber (trees or logs suitable for conversion into lumber) and other wood products (small logs used to make firewood, posts, and poles). The volume of each component also declined in the same time period. Sawtimber declined from 80 million board feet to 14 million board feet and other wood products declined from 21 million board feet to 11 million board feet. Consequently, in 2002 the proportion of sawtimber in the total volume offered for sale was less than it was in 1990.

A shift in program emphasis from timber production to enhancing forest ecosystem health that took place in the late 1980s was the principal factor contributing to the decline in BLM's timber volume offered for sale. Federal officials made the shift in order to (1) provide more protection for nontimber resources such as recreation, water quality, and species habitat, which timber harvesting can adversely affect and (2) focus forest management on the removal of smaller trees and brush to reduce the risks of insects, disease, and wildfire. According to BLM officials, responding to these needs has resulted in timber production becoming a by-product, rather than a focus, of BLM's management of its lands.

In responding to a draft of this report, the department pointed out that the report achieved its three objectives. The department also said that BLM has begun to act on some of the findings in the draft report, including recruiting new foresters, in part to support the National Fire Plan. Furthermore, the department said that the President's fiscal year 2004 budget proposes a \$1 million increase in funding for the public domain forests and woodlands management program. The increased funding, according to the department, will be used to improve utilization of small-diameter wood materials, improve forest health, and provide entrepreneurial opportunities in the wood product industry.

¹ A board foot is a measure of timber volume equal to a board one inch thick and one foot in both length and width.

Background

BLM, within the Department of the Interior, and the Forest Service, within the Department of Agriculture, are the two primary federal agencies involved with timber sales. In terms of acreage, the Forest Service manages over 192 million acres of national forest system land. In contrast, BLM manages about 261 million acres of public lands, of which about 55 million acres are forests and woodlands. BLM administers two forestry programs: one on public domain lands and one in western Oregon.² BLM's public domain forestry management program covers 53 million acres—about 9 million acres of forests and about 44 million acres of woodlands.³ Appendix I provides a detailed listing of forest and woodland acreage administered under BLM's public domain forestry management program.

BLM's forests and woodlands on public domain lands are primarily in 12 western states. Much of these lands tend to be in small, isolated parcels that are not as productive as BLM's western Oregon lands or the larger forests managed by the Forest Service. BLM manages its public domain lands through a multilevel organization—national office, 12 state offices, and about 130 field offices—that carries out a variety of agency programs and activities including recreation and fish and wildlife protection, in addition to timber.

BLM's public domain forestry management program received a small portion of the agency's \$1.8 billion annual budget for fiscal year 2002. The Congress appropriated about \$6.2 million for the public domain forestry management program in fiscal year 2002.⁴

Timber offered for sale on public domain lands includes sawtimber and other wood products. Sales of sawtimber and some other wood products are initiated by soliciting bids from prospective buyers. In addition, BLM offers other wood products to the public through a permit process.

² BLM's program for forests and woodlands in western Oregon covers about 2.4 million acres that are highly productive.

³ BLM defines forests as those lands dominated by tree species that are typically used commercially by the forest products industry, and woodlands as those lands dominated by other tree species. Woodlands typically have significantly lower productivity than forests.

⁴ The appropriation included an additional \$1.4 million for the Headwaters Forest Reserve in California. According to BLM, this amount was not available for the public domain forestry management program.

Federal Land Policy and Management Act and Other Environmental Laws Provide the Statutory Framework for BLM Timber Sales

BLM manages its public domain forestry management program within a statutory framework consisting of a land management statute and various other environmental laws. The Federal Land Policy and Management Act of 1976 (FLPMA)—the principal law under which BLM manages its public domain forestry management program—requires BLM to manage its public lands under the principles of multiple use and sustained yield.⁵ FLPMA gives BLM broad management discretion over how it emphasizes one use, such as offering timber for sale, in relation to another, such as providing recreation. Among other things, multiple use management aims at a combination of balanced and diverse resource uses that take into account the long-term needs of future generations for renewable resources (for example, timber) and nonrenewable resources (for example, minerals). FLPMA states that BLM should consider fish and wildlife; recreation; minerals; range; ecological preservation; timber; watershed; natural scenic, scientific, and historical values; and other resources, as it balances public land uses. Under the principle of sustained yield, BLM seeks to achieve and maintain high output levels of all renewable resources in perpetuity. Under FLPMA, BLM has broad discretion in managing its timber sales. During its land use planning process, BLM identifies areas that are available and have the capacity for planned, sustained-yield harvest of timber or other forest products.

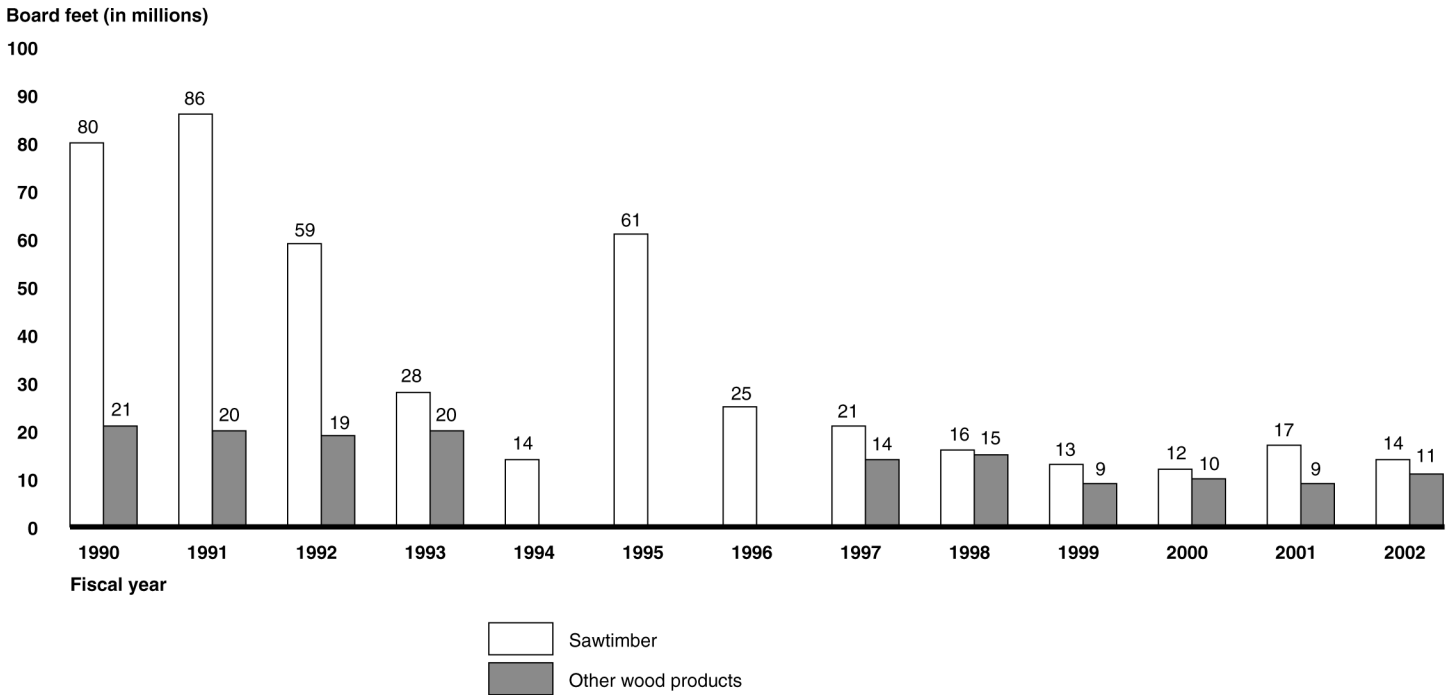
BLM timber sales on public domain lands must also comply with the requirements of other environmental laws, including the National Environmental Policy Act, the Endangered Species Act, and the Clean Water Act. For major federal actions that may significantly affect the quality of the human environment, the National Environmental Policy Act requires all federal agencies, including BLM, to analyze the potential environmental effects of a proposed project, such as a timber sale. Regulations implementing the National Environmental Policy Act require agencies to include a discussion of how to mitigate adverse impacts and a discussion of those impacts that cannot be avoided under the federal action. Under the Endangered Species Act, BLM must ensure that its actions are not likely to jeopardize the continued existence of species listed as threatened or endangered or to destroy or adversely modify habitat critical to their survival. Similarly, the requirement to meet standards for water quality under the Clean Water Act may limit the timing, location, and volume of timber sales.

⁵ 43 U.S.C. §§ 1701(a)(7), 1732(a).

The Volume and Composition of BLM Timber Sale Offerings from Public Domain Lands Have Changed Significantly Since 1990

BLM's annual volume of timber offered for sale from public domain lands declined 74 percent from 101 million board feet of timber in fiscal year 1990 to 26 million board feet in 2002. Over the same period, the volume of the two components of BLM offerings—sawtimber and other wood products—also declined: sawtimber from 80 million to 14 million board feet (81 percent) and other wood products from 21 million to 11 million board feet (46 percent). See figure 1.

Figure 1: BLM Public Domain Timber Offered for Sale by Type, Fiscal Years 1990 through 2002



Source: BLM.

Note: BLM could not provide volume data for other wood products for fiscal years 1994 through 1996.

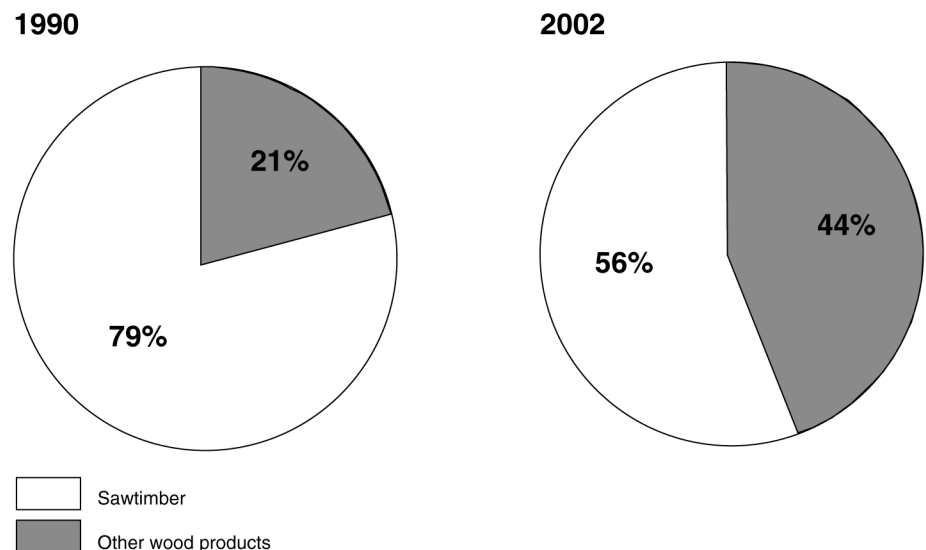
Appendix II includes more detailed information on the volume of BLM public domain timber offered for sale from fiscal year 1990 through 2002.

Mirroring the overall national decline, each BLM state office experienced declines in the volume of timber offered for sale from fiscal year 1990

through 2002. Eastern Oregon experienced the sharpest decline—from 56 million to 8 million board feet—representing nearly two-thirds of the overall decline. A BLM official explained that eastern Oregon offered an abnormally high volume of timber for sale in fiscal years 1990 and 1991, primarily due to a large salvage logging effort following a mountain pine beetle epidemic. For perspective, from fiscal years 1985 through 1989, eastern Oregon offered an average of 22 million board feet of timber per year. Appendix III shows the volume of timber that each BLM state office offered for sale in 1990 and in 2002 and the amount of decline.

As a consequence of the decline in the volume of timber offered for sale during fiscal years 1990 through 2002, the proportion of the volume's two components also changed. As shown in figure 2, sawtimber represented over three-quarters of the total volume in fiscal year 1990, but had decreased to slightly more than one-half of the total volume by fiscal year 2002. In contrast, the proportion of other wood products increased from about one-fifth of the total volume in 1990 to about one-half of the total volume in fiscal year 2002.

Figure 2: Proportion of BLM Public Domain Timber Offerings by Type, Fiscal Years 1990 and 2002



Source: BLM.

Shift in Program Emphasis Was the Primary Cause of the Decline in Timber Offered for Sale

Beginning in the late 1980s, the program emphasis on BLM public domain lands, like that on most other federal forests, increasingly shifted from timber production to emphasizing forest ecosystem health.⁶ This shift in emphasis, required by changing forest conditions and needs, helped cause a reduction in the volume of timber removed from all federal lands, including BLM public domain lands. As a result of this decline in supply volume, some sawmills that formerly processed BLM timber have closed, making it more difficult for BLM to market timber in some areas. In addition, the emphasis on forest ecosystem health has increased some of the costs associated with timber sales preparation, as staff must now prepare more extensive analysis of the effects of the timber harvest on other resources. Faced with generally declining funding levels and fewer foresters to prepare timber sales, and subsequently fewer sales, BLM's volume of timber offered for sale from its public domain lands declined.

Shift in Program Emphasis to Forest Ecosystem Health Has Contributed to Reduced Timber Sale Offerings

The 74 percent decline in the volume of timber sale offerings from BLM public domain lands since 1990, according to BLM officials, was primarily due to the shift in program emphasis to forest ecosystem health. We previously reported that this shift in emphasis caused large declines in timber production from all federal forests.⁷ BLM's decline mirrored a similar decline in offerings from the 155 national forests. For example, between 1990 and 1997 the volume of timber offered for sale from the national forests managed by the Forest Service declined about 65 percent, from 11 billion to 4 billion board feet.

Since the late 1980s, growing concerns over declining ecological conditions on federal lands—such as poor animal habitat and water quality—resulted in federal agencies adopting a new, more scientifically based management approach, referred to then as ecosystem management. BLM officially adopted this approach to implementing its land

⁶ Several terms have been used when referring to this program emphasis and its various dimensions, including “ecosystem management,” “forest health,” “land health,” and “forest ecosystem health.” These terms (1) all generally refer to approaches for managing timber and other resources in relation to one another or desired overall conditions of forest ecosystems, (2) have no generally accepted definitions, and (3) are sometimes, but not always, used interchangeably. In this report we have used the term “forest ecosystem health” because, in our view, it broadly reflects important dimensions of the shift in program emphasis discussed and it encompasses both the program objective (forest health) and the management approach used to achieve it (ecosystem management).

⁷ *Forest Service Priorities: Evolving Mission Favors Resource Protection Over Production*, GAO/RCED-99-166 (Washington, D.C.: June 17, 1999).

management responsibilities in 1994 to sustain resource usage in an ecosystem—including timber production—while maintaining, and restoring where damaged, the natural functioning of interdependent communities of plants and animals and their physical environment (soil, water, air).⁸ In revising forest management policy for public domain lands, BLM increased its emphasis on managing for forest ecosystem conditions, in addition to providing for sustained yield of its forests and woodlands. This new policy recognized the role that insects, disease, fire, and other disturbance mechanisms, as well as noncommercial plant species, play in ecosystems.

The reduction in the volume of timber offered for sale also resulted from environmental statutes and their judicial interpretations arising from lawsuits brought by environmental and recreational organizations. In order to increase protection of wildlife habitat, recreation, and stream quality, the volume of timber offered for sale was reduced for the following reasons: (1) some forest areas where timber sales had been planned could not be used for this purpose; (2) in some areas where trees could be harvested, fewer trees could be removed because of limitations on clear-cutting; and (3) in some cases, BLM would not offer timber for sale where the removal costs were too expensive for buyers.

BLM officials cited several instances where an increased emphasis on providing greater protection to forest ecosystem resources from the adverse effects of timber harvesting had resulted in reductions of timber offerings on BLM public domain lands since 1990. For example, an official in the BLM Idaho state office noted that harvesting timber by clear-cutting is no longer performed in many locations. Likewise, concerns about potential harm to the habitat of threatened or endangered species, such as lynx and bull trout, led to a reduced volume of timber offered for sale. In addition, some current harvesting methods cost more and result in less volume, but potentially cause less harm to the species and its habitat. BLM officials told us that in eastern Oregon they offered sales in areas where there were fewer concerns about the harm to habitat in order to reduce the probability of public challenge. Additionally, BLM officials in Idaho and Oregon told us that the need to sometimes use helicopters to remove harvested trees, in order to protect other resources from effects that would result, for example, from constructing roads to access and remove

⁸ *Ecosystem Management in the BLM: From Concept to Commitment* (Department of the Interior, Bureau of Land Management, January 1994).

timber, drove up costs and further reduced the amount of timber they could offer for sale.

In the 1990s, growing concerns about changes in forest structure and composition, and the long-term threats that these changes posed to forest ecosystem health, further contributed to the declines in the volume of timber offered for sale from federal forests, including from BLM public domain lands. The principal change in forest structure that was of concern was the increasing density of tree stands in forests, especially of smaller trees and brush. Among the changes in forest composition of most concern was a reduction in the diversity of tree species. Both types of change stemmed largely from decades of previously accepted forest management practices, such as the exclusion of naturally occurring periodic fires that removed smaller trees and undergrowth; replacement, after clear-cutting, of mixed native species with a single species; and a failure to carry out planned thinning of forests.

Overly dense, less diverse forests can lead to increasingly widespread insect and disease infestations and greatly increase the risk of catastrophic wildfires. Such wildfires can severely damage tree stands, wildlife habitat, water quality, and soils, and threaten human health, lives, property, and infrastructure in nearby communities. According to BLM, the need to reduce forest density and restore composition diversity in forest ecosystems has necessitated a refocusing of federal forest management activities, including timber sale offerings, on the removal of smaller trees and materials that generate less volume than the larger trees more commonly offered for sale in prior years.

BLM program management officials stated that the need to restore the structure and composition of forests is currently the primary reason that the timber removed from public domain lands will have to continue to be more heavily weighted towards nonsawtimber and small-diameter trees. In many cases, the materials that need to be removed have little or no commercial value, and thus do not affect the overall volume of timber offered for sale. For example, a BLM official in a Colorado field office told us that any increase in funding would first concentrate on a backlog of areas that were overstocked following harvests several years ago, but were never thinned of small trees that had no commercial value.

BLM officials could not quantify the effect of the shift to forest ecosystem health on the overall decline in the volume of timber sale offerings since 1990. They noted, however, that the shift had resulted in timber becoming

largely a by-product, rather than a focus, of the public domain forestry management program.

Shift in Program Emphasis Has Led to Mill Closures, BLM Staffing Changes, and Insufficient Inventory Data During a Period of Declining Budgets

The decline in the volume of timber sale offerings from federal forests as a result of the shift in emphasis to forest ecosystem health has resulted in a reduced supply of materials for sawmills in many areas. According to two reports⁹ principally authored by The University of Montana's Bureau of Business and Economic Research and the Forest Service, the volume of timber from national forests received by mills in Idaho and Montana declined in the 1990s. For example, in Idaho, the volume declined from about 729 million board feet in 1990 to 301 million board feet in 1995, representing a decline of 59 percent. In Montana, the volume declined from about 318 million board feet in 1993 to 215 million board feet in 1998, representing a decline of 32 percent. According to these reports, the reduced mill capacity in these states was due primarily to the decline in timber availability from national forests. Furthermore, these reports indicated that the decline in timber volume from the national forests was a contributing factor to the closure of at least 30 sawmills in these two states. Other factors mentioned by these reports as contributing to sawmill closures included fluctuations in lumber prices, changes in the volume of exports and imports of lumber, and changes in the structure of the industry.

According to BLM officials, the primary reason for sawmill closures was the decline in the supply of timber from the larger, more productive Forest Service lands near BLM lands. However, they noted that purchasers of timber from BLM public domain lands also used these mills. For example, officials in some field offices in Colorado and Idaho said several nearby mills had closed, leading purchasers to transport timber to more distant mills for processing. As a result, the officials noted that the purchasers of timber from these offices have experienced higher transportation costs, thereby reducing the attractiveness of purchasing timber from BLM public domain lands. The officials told us that because of the relatively small volume of timber offered for sale from BLM public domain lands, a return

⁹ *Idaho's Forest Products Industry: A Descriptive Analysis 1979-1996* (The Bureau of Business and Economic Research, School of Business Administration, The University of Montana, December 1997) and *Montana's Forest Products Industry: A descriptive analysis, 1969-2000* (The Bureau of Business and Economic Research, School of Business Administration, The University of Montana, September 2001).

to previous BLM sale offering levels would not result in sufficient supply for the mills to reopen.

The shift in emphasis has also contributed to a need for more extensive analysis and the hiring of more resource protection specialists during the time that BLM's funding for its public domain forestry management program was generally declining. Consequently, less volume of timber was offered because it takes longer and costs more to prepare a given volume of timber for sale. According to officials, over the past decade, BLM has hired more resource protection specialists, such as wildlife biologists, botanists, and hydrologists, in order to better analyze the effects of potential timber sales on other resources, such as wildlife habitat. At the same time, many foresters, who are the primary staff involved in identifying and preparing timber sales, have departed the agency either through retirement or other means in recent years and have not been replaced. For example, the number of BLM foresters decreased from 72 to 53 between fiscal year 1991 and fiscal year 2002. We were told that at some field units there are no foresters remaining that have the skills needed to prepare timber sales. Furthermore, using constant 2002 dollars, BLM's appropriations for the public domain forestry management program declined from \$8.5 million in fiscal year 1990 to \$6.2 million in 2002. Thus, the higher preparation costs and smaller budgets have left BLM less able to prepare timber sales. According to BLM, it has begun recruiting new foresters and has requested an increase of \$1 million in funding in fiscal year 2004 for the public domain forestry management program.

In addition, BLM officials told us that for the past few years the agency has not had the funding to develop better inventory information about forests and woodlands in order to adequately assess the effects of timber sales on the forest ecosystem. For example, they do not have current information on the condition of forests and woodlands, such as tree density, species composition, and the extent of forests and woodlands affected by insects and disease—information needed to identify potential timber sale offerings. According to the officials, some timber sales cannot be prepared because BLM does not have credible inventory data needed to justify trade-offs between timber harvesting and other concerns, such as impacts on animal species habitat. Agency officials said that the lack of knowledge of its inventory has been a long-standing problem.

Agency Comments and Our Evaluation

We provided a draft of this report to the Department of the Interior for review and comment. The department pointed out that the report achieved its three objectives and that we had incorporated information based on informal discussions with staff. The department said that BLM has begun to act on some of the findings in the draft report, including recruiting new foresters, in part to support the National Fire Plan. According to the department, these foresters will help ensure that forest health considerations, such as species composition, stand structure, and insect or disease occurrence, are fully considered, in addition to hazardous fuel reduction. BLM state directors have submitted detailed action plans to meet state-specific needs for renewed emphasis on forests and woodlands management. Furthermore, the department said that the President's fiscal year 2004 budget proposes a \$1 million increase in funding for the public domain forests and woodlands management program. The increased funding, according to the department, will be used to improve utilization of small-diameter wood materials, improve forest health, and provide entrepreneurial opportunities in the wood product industry. We included information in the report regarding BLM's recruiting efforts and its request for additional funding.

The department also made technical clarifications, which we incorporated as appropriate. The department's comments are reprinted in appendix IV.

Scope and Methodology

To determine the legal framework for BLM timber sales on public domain lands, we reviewed laws and regulations governing BLM's timber sales activities. We also reviewed policy documents issued by headquarters and, if available, supplemental guidance issued by state and field locations as it relates to timber sales activities.

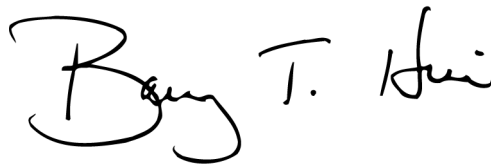
To determine the trend in the volume of timber that BLM offered for sale from public domain lands, we obtained BLM information on the volumes and composition—sawtimber, firewood, posts, poles, and other wood products—of timber offered for sale by state office for fiscal years 1990 through 2002. We reviewed information contained in BLM's Timber Sale Information System and its annual publication, *Public Land Statistics*.

To determine what factors contributed to the trend in the volume of timber offered for sale from public domain lands from 1990 to 2002, we met with BLM headquarters officials and visited or contacted officials at 9 of the 12 BLM state offices and six field offices—two each in the states of Colorado, Idaho, and Montana. We discussed with these officials how their respective offices established timber sale goals, allocated forestry

program funding, and monitored accomplishment of planned timber sales. We also discussed with these officials BLM's management emphasis on improving forest health, and the trends in (1) market conditions for timber and other wood products and (2) BLM funding and staffing. In addition, we reviewed BLM's budget justifications, strategic and annual plans and reports, land use plans, and other materials related to BLM's timber sales activities. To gain further perspective on the market conditions of the timber industry, we interviewed officials and reviewed timber industry research publications from The University of Montana. Finally, to gain a more detailed understanding of timber sales activities on public domain lands, we met with officials in three BLM state offices—Colorado, Idaho, and Montana—and visited several BLM timber sale projects that were ongoing or had been completed recently.

We conducted our review from May 2002 through May 2003 in accordance with generally accepted government auditing standards.

We will send copies of this report to the Secretary of the Interior; the Director of the Bureau of Land Management; the Director, Office of Management and Budget; and other interested parties. We will also make copies available to others upon request. In addition, the report will be available at no charge on the GAO Web site at <http://www.gao.gov>. If you or your staff have any questions, please call me at (202) 512-3841. Key contributors to this report are listed in appendix V.



Barry T. Hill
Director, Natural Resources
and Environment

List of Requesters

The Honorable Larry Craig
Chairman
Subcommittee on Public Lands and Forests
Committee on Energy and Natural Resources
United States Senate

The Honorable Scott McInnis
Chairman
Subcommittee on Forests and Forest Health
Committee on Resources
House of Representatives

The Honorable George Radanovich
Chairman
Subcommittee on National Parks, Recreation and Public Lands
Committee on Resources
House of Representatives

The Honorable Michael Crapo
United States Senate

The Honorable Gordon Smith
United States Senate

Appendix I: Public Domain Forest and Woodland Acres by BLM State Office

Table 1 shows the number of acres of forests and woodlands and their total for each BLM state office.

Table 1: Public Domain Forest and Woodland Acres by BLM State Office

| Acres in thousands | | | |
|----------------------------------|----------------|------------------|---------------|
| BLM state office | Forests | Woodlands | Total |
| Alaska ^a | 5,297 | 22,982 | 28,279 |
| Arizona | 20 | 1,054 | 1,074 |
| California | 204 | 2,004 | 2,208 |
| Colorado | 1,069 | 3,041 | 4,110 |
| Eastern States | 0 | 30 | 30 |
| Idaho | 512 | 380 | 892 |
| Montana | 783 | 27 | 810 |
| Nevada | 5 | 6,269 | 6,274 |
| New Mexico | 44 | 941 | 985 |
| Oregon (excludes western Oregon) | 194 | 847 | 1,041 |
| Utah | 338 | 5,735 | 6,073 |
| Wyoming | 474 | 530 | 1,004 |
| Total | 8,940 | 43,840 | 52,780 |

Source: BLM.

^aAccording to BLM, much of the land in Alaska is inaccessible or too far from established markets to make timber harvesting feasible.

Appendix II: Volume of Timber Offered for Sale from BLM Public Domain Forests and Woodlands, Fiscal Years 1990 through 2002

Table 2 identifies the volume, in board feet, of sawtimber, cords, posts, poles, and other wood products offered for sale from public domain lands from fiscal years 1990 through 2002.

Table 2: Annual Volume of Timber Offered for Sale from BLM Public Domain Forests and Woodlands, Fiscal Years 1990 through 2002

| Board feet in thousands | | | | | | | | |
|-------------------------|-----------|---------------------|-------|-------|--------------------|--------|----------|-----------------------------|
| Fiscal year | Sawtimber | Other wood products | | | | | Subtotal | Total timber volume offered |
| | | Cords ^a | Posts | Poles | Other ^b | | | |
| 1990 ^c | 80,116 | 19,227 | 1,733 | 254 | 14 | 21,228 | 101,344 | |
| 1991 | 86,395 | 18,941 | 465 | 615 | 7 | 20,028 | 106,423 | |
| 1992 | 59,161 | 16,691 | 457 | 1,756 | 234 | 19,138 | 78,299 | |
| 1993 | 28,150 | 18,351 | 571 | 566 | 14 | 19,502 | 47,652 | |
| 1994 ^d | 13,672 | d | d | d | d | d | d | |
| 1995 ^d | 61,128 | d | d | d | d | d | d | |
| 1996 ^d | 25,168 | d | d | d | d | d | d | |
| 1997 | 21,148 | 10,502 | 335 | 2,776 | 471 | 14,084 | 35,232 | |
| 1998 ^e | 15,635 | 12,353 | 388 | 1,807 | 78 | 14,626 | 30,261 | |
| 1999 ^{f,g} | 12,523 | 7,804 | 468 | 483 | 95 | 8,850 | 21,373 | |
| 2000 ^f | 12,327 | 8,584 | 454 | 207 | 585 | 9,830 | 22,157 | |
| 2001 ^f | 17,233 | 8,609 | 683 | 130 | 65 | 9,487 | 26,720 | |
| 2002 ^f | 14,427 | 10,463 | 679 | 303 | 27 | 11,472 | 25,899 | |

Source: BLM.

^aData for cords were rounded for reporting purposes.

^b“Other” includes miscellaneous wood products such as pulpwood, marginal logs, houselogs, fence stays, and hobby wood.

^cTimber volume offered for sale was not available for the Alaska State Office for fiscal year 1990.

^dBLM was unable to provide information on the volumes of other wood products for fiscal years 1994 through 1996. BLM’s publication *Public Land Statistics* or its Timber Sale Information System database did not include such information.

^eData for fiscal year 1998 were originally recorded in hundreds of cubic feet. We converted cubic feet data to thousands of board feet using a conversion factor of 1.63 as suggested by BLM. However, according to BLM, the cubic feet to board feet conversion is not standardized and may be different for different sizes of logs or types of products.

^fIn fiscal years 1999 through 2002, sawtimber was originally recorded in thousands of board feet, but other wood products were originally recorded in hundreds of cubic feet. We converted cubic feet data to thousands of board feet using a conversion factor of 1.63 as suggested by BLM. However, according to BLM, the cubic feet to board feet conversion is not standardized and may be different for different sizes of logs or types of products.

^gData for fiscal year 1999 do not include small sales, which were included in all other years.

Appendix III: Volume of Timber Offered for Sale from Public Domain Lands by BLM State Office, Fiscal Years 1990 and 2002

Table 3 shows the volume, in board feet, of timber offered for sale in fiscal years 1990 and 2002, and their differences in volume, by BLM state office.

Table 3: Volume of Timber Offered for Sale from Public Domain Lands by BLM State Office, Fiscal Years 1990 and 2002

| Board feet in millions | | | | |
|----------------------------------|---------------------------|-------------------------|----------------------------|--|
| BLM State Office | Fiscal year 1990 | Fiscal year 2002 | Difference | |
| Alaska | Unavailable | 0.35 | — | |
| Arizona | 0.91 | 0.21 | (0.70) | |
| California | 5.35 | 2.22 | (3.13) | |
| Colorado | 3.96 | 1.19 | (2.77) | |
| Idaho | 12.96 | 3.98 | (8.98) | |
| Montana | 7.31 | 3.07 | (4.24) | |
| Nevada | 3.25 | 2.91 | (0.34) | |
| New Mexico | 2.63 | 1.49 | (1.14) | |
| Oregon (excludes western Oregon) | 55.82 | 7.66 | (48.16) | |
| Utah | 5.45 | 1.96 | (3.49) | |
| Wyoming | 3.71 | 0.86 | (2.85) | |
| Total | 101.35^a | 25.90 | (75.80)^a | |

Source: BLM.

Note: BLM's Eastern States Office offered no timber for sale in fiscal years 1990 through 2002.

^aExcludes Alaska.

Appendix IV: Comments from the Department of the Interior

Note: GAO comments supplementing those in the report text appear at the end of this appendix.



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, D.C. 20240

JUN 5 2003

Mr. Barry T. Hill
Director, Natural Resources and Environment
U.S. General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Hill:

Thank you for the opportunity to review the May 12, 2003, draft report to congressional requesters entitled "Bureau of Land Management: Volume of Timber Offered for Sale Has Declined Substantially Since 1990" (GAO-03-615). The work was performed under job code 360209.

The report achieves its objectives of determining the statutory framework for public domain timber sales, the trend in timber volume offered for sale from public domain land managed by the Bureau of Land Management (BLM), and factors contributing to the trend.

The BLM staff met with General Accounting Office (GAO) analysts to discuss the statement of facts, which is the basis of this draft report. Much of the BLM's feedback has been incorporated into the draft report. In addition, I would like to provide more information and clarification.

The title of the report should be changed to recognize that the report deals with only the BLM forests and woodlands management program on public domain land. The findings are not related to the BLM's forest management program on the more than 2 million acres of forests on Oregon and California grant lands in western Oregon.

The 44 million acres of public domain woodlands pose unique management challenges for the BLM. Woodlands are areas covered with tree species that in general have little or no commercial value. As such, they were never included in land use plans as areas considered for any type of sustained yield harvest. Some woodlands contain species, such as aspen or oak, that provide critical wildlife habitat. Other woodlands, such as areas dominated by closed canopy pinyon and juniper, can be detrimental to wildlife habitat by shading the understory vegetation resulting in a loss of soil and plant diversity. Such stands also contribute to an increased risk of crown fires. Managing public domain woodlands for land health, along with the 9 million acres of forests, is critical to the BLM's providing healthy landscapes now and in the future. This distinction is noted in the BLM's use of the term "forests and woodlands management" program.

See comment 1.

See comment 2.

See comment 3.

The last paragraph on page 3 of GAO's draft report states that BLM management of forests and woodlands resources has resulted in timber becoming a by-product rather than the focus of BLM's management of its land. The BLM's 9 million acres of forest land represent the total public domain area that supports commercial tree species, such as ponderosa pine, lodgepole pine, Douglas fir, and larch. The BLM does not agree with GAO's statement on page 6 that mitigation is not required for adverse impacts resulting from operations on these lands. Best management practices and associated project design features, such as designation of riparian habitat and restrictions on operations on fragile slopes, are standard practice and reduce the available public domain land for forestry. When combined with other environmental restrictions noted in the draft report, the base for timber operations is reduced more. The lack of a current inventory of timber resources is exacerbated by a general de-emphasis on land use planning starting in the early 1990s. These facts, when combined with increased management emphasis on forest health, have resulted in less emphasis on timber harvest for commodity values. However, BLM foresters seek to capture the economic value of all forest operations, whenever practicality and staff allow.

See comment 4.

The BLM has already begun to take action on some of the findings in this draft report. The BLM is recruiting new foresters, in part, to support the National Fire Plan. Filling new forester positions will help to ensure that forest health considerations, such as species composition, stand structure, and insect or disease occurrences, are fully considered in addition to hazardous fuel reduction. All BLM State Directors have submitted detailed action plans to meet State-specific needs for renewed emphasis on forests and woodlands management. The President's fiscal year 2004 budget proposes a \$1 million increase in funding for the public domain forests and woodlands management program. This increase in funding will be used to improve utilization of small diameter wood materials, improve forest health, and provide entrepreneurial opportunities in the wood products industry.

See comment 5.

Within the section titled "Shift in Program Emphasis Has Led to Mill Closures, BLM Staffing Changes, and Insufficient Inventory Data," GAO noted "... using constant 2002 dollars, (the) BLM's appropriations for the public domain forestry management program declined from \$8.5 million in fiscal year 1990 to \$6.2 million in (fiscal year) 2002." It is important to reinforce that the volume of timber from public domain land offered for sale and the BLM budget for managing public domain forestry both declined significantly since 1990. This important finding deserves to be highlighted in a section headed "BLM Budget for Forests and Woodlands Management Declined Significantly Since 1990."

See comment 6.

Impacts on the industry are related to total volume of timber offered. It is worth putting into context that the amount of timber offered for sale from public domain land managed by the BLM is small compared to the timber offered for sale by the Forest Service or State and private landowners. As the GAO noted, the Forest Service offered 11 billion board feet of timber for sale from national forests in 1990. By comparison, the BLM offered only 80 million board feet of timber from public domain forests in 1990.

3

If you have any questions, please contact Michael J. Haske, Acting Group Manager, Forests and Woodlands Management, at 202-452-0312 or Andrea Nygren, BLM Audit Liaison Officer, at 202-452-5153.

Sincerely,



Rebecca W. Watson
Assistant Secretary
Land and Minerals Management

cc: Roy Judy, General Accounting Office

The following are GAO comments on the Department of the Interior's letter dated June 5, 2003.

GAO's Comments

1. We changed the title to be more specific to public domain lands.
2. In accordance with our job objectives, our report addresses the trend in the volume of timber offered for sale from both public domain forests and woodlands. Furthermore, the report notes that woodlands typically have significantly lower productivity than forests.
3. We deleted reference to the federal regulations generally not requiring mitigation of adverse impacts resulting from operations on public domain lands. We added information to clarify that the federal regulations referred to in the draft report were those that implement the National Environmental Policy Act. The department agreed with this clarification.
4. We agree that the change of emphasis has affected the volume of timber offered for sale, which is already clearly articulated in the report.
5. We agree that both the budget and the volume of timber offered for sale have declined significantly. We have included a reference to the budgetary decline in a section heading.
6. We agree that the volume of timber offered for sale from BLM's public domain lands is small compared to offerings from Forest Service or state or private land. As the report indicates, the Forest Service offered 4 billion board feet of timber for sale from national forests in 1997, while BLM offered 35 million board feet—21 million board feet of sawtimber and 14 million board feet of other wood products—from public domain lands. Also, the report points out that about 7 percent of the nation's domestically produced timber and wood products come from federally managed forests, which include BLM and Forest Service forests. Therefore, the remaining 93 percent is from nonfederal lands, which include state and private lands.

Appendix V: GAO Contacts and Staff Acknowledgments

GAO Contacts

Barry T. Hill (202) 512-3841 (hillbt@gao.gov)

Staff Acknowledgments

In addition to the above, Andrew S. Bauck, Linda L. Harmon, Richard P. Johnson, Chester M. Joy, Roy K. Judy, Rosellen McCarthy, Jonathan S. McMurray, Paul E. Staley, and Amy E. Webbink made key contributions to this report.

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