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SEVERE WILDLAND FIRES

Leadership and Accountability Needed to Reduce Risks to Communities and Resources



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Congressional Requesters

Human activities—especially the federal government's decades-old, wellintended policy of suppressing all wildland fires, including naturally occurring ones—have resulted in dangerous accumulations of brush, small trees, and other hazardous vegetation on federal lands, especially in the dry, lower-elevation, fire-adapted regions of the interior western United States. This vegetation has increasingly provided fuel for large, intense (severe) wildland fires.

The 2000 wildland fire season was one of the worst in 50 years. The scale and intensity of the fires capped a decade that was characterized by dramatic increases not only in the number of severe wildland fires, but also in the costs associated with suppressing them. These fires have also posed increasing risks to communities in the wildland-urban interface areas where human development meets or intermingles with undeveloped wildland—as well as to municipal watersheds and individual resources, such as threatened and endangered species, clean water, and clean air.

To respond to the wildland fires in 2000, then-President Clinton requested, and the Secretaries of the Interior and Agriculture submitted, a September 8, 2000, report on managing the impact of wildland fires on communities and the environment.¹ This report together with the accompanying budget request; Congressional direction accompanying substantial new appropriations for wildland fire management for fiscal year 2001; and resulting strategies, plans, projects, and other activities have become known as the National Fire Plan. In addition, the 1995 Federal Wildland Fire Management Policy,² updated in 2001,³ provides the philosophical and

¹ Managing the Impact of Wildfires on Communities and the Environment, A Report to the President In Response to the Wildfires of 2000, Secretaries of the Interior and Agriculture (Sept. 8, 2000).

² *Federal Wildland Fire Management Policy and Program Review*, Report to the Secretaries of the Interior and of Agriculture by the Federal Wildland Fire Management Policy and Program Review Steering Group (Dec. 18, 1995).

³ *Review and Update of the 1995 Federal Wildland Fire Management Policy*, Report to the Secretaries of the Interior, of Agriculture, of Energy, of Defense, and of Commerce; the Administrator, Environmental Protection Agency; and the Director, Federal Emergency Management Agency, by an Interagency Federal Wildland Fire Policy Review Working Group (Jan. 2001).

policy foundation for hazardous fuels reduction as well as for other federal interagency wildland fire management activities conducted under the National Fire Plan.

The National Fire Plan advocates a new approach to wildland fires. This approach shifts emphasis from reactive to proactive—from attempting to suppress wildland fires to reducing the buildup of hazardous vegetation that fuels severe fires. The Plan recognizes that, unless hazardous fuels are reduced, the number of severe wildland fires and the costs associated with suppressing them will continue to increase.

Reducing the buildup of hazardous vegetation that fuels severe fires requires primarily vegetation management, including fires set by federal land managers (prescribed fires), mechanical thinning, and timber harvesting. On federal lands, these activities are conducted primarily by five agencies—the National Park Service, the Fish and Wildlife Service, the Bureau of Land Management, and the Bureau of Indian Affairs within the Department of the Interior, and the Forest Service within the Department of Agriculture.

Prior to fiscal year 1998, the administration did not request, and the Congress did not appropriate, funds specifically for hazardous fuels reduction. For fiscal years 1998 through 2000, funds requested and appropriated specifically for these activities totaled less than \$93 million a year. For fiscal year 2001, the Clinton administration requested a substantial increase, and the Congress appropriated \$401 million to reduce hazardous fuels. For fiscal year 2002, the Congress appropriated another \$395 million for hazardous fuels reduction. Congressional committees have also recognized the need to sustain increased funding for hazardous fuels reduction in future fiscal years.

Because the Congress is prepared to fund an aggressive, multi-year campaign to reduce hazardous fuels, it is imperative that the five federal land management agencies receiving these funds act quickly to develop the leadership and performance accountability framework to spend the funds in an efficient, effective, and timely manner.⁴ In this report we discuss (1) the need for clearly defined and effective leadership to reduce the buildup of hazardous vegetation that fuels severe wildland fires, (2)

⁴ See Reducing Wildfire Threats: Funds Should Be Targeted to the Highest Risk Areas (GAO/T-RCED-00-296, Sept. 13, 2000).

the progress that the five federal land management agencies have made in implementing a sound performance accountability framework to spend effectively the funds appropriated for hazardous fuels reduction, and (3) the availability of data on which to make informed decisions and to measure progress.

Results In Brief

Our work has shown that a single focal point is critical for efforts—such as reducing severe wildland fires and the vegetation that fuels them—that involve many federal agencies as well as state and local governments, the private sector, and private individuals. However, over a year after the Congress substantially increased funds to reduce hazardous fuels, the federal effort still lacks clearly defined and effective leadership. Rather than a single focal point, authority and responsibility remain fragmented among Interior, the Forest Service, and the states. In a December 2001 report for the Department of the Interior,⁵ the National Academy of Public Administration⁶ recommended that, to provide the required leadership, the Secretaries of the Interior and of Agriculture should establish an interagency national council to implement the Federal Wildland Fire Management Policy as well as hazardous fuels reduction and other key elements of the National Fire Plan, such as fire suppression.

A sound framework to ensure that funds appropriated to reduce hazardous fuels are spent in an efficient, effective, and timely manner is needed. Such a framework is grounded in federal wildland fire management policies, the National Fire Plan, and Congressional direction. This framework includes, among other things, (1) consistent criteria to identify and prioritize wildland-urban interface communities within the vicinity of federal lands that are at high risk from severe wildland fires; (2) clearly defined and outcome-oriented goals and objectives, as well as quantifiable long-term and annual performance measures, to assess progress in reducing the risks of severe wildland fires in wildland-urban interface areas as well as in other areas; (3) a comprehensive long-term strategy that incorporates the criteria, goals, objectives, and measures; and

⁵ Managing Wildland Fire: Enhancing Capacity to Implement the Federal Interagency Policy, A Report by a Panel of the National Academy of Public Administration for the United States Department of the Interior (Dec. 2001).

⁶ The National Academy of Public Administration is an independent, nonprofit organization chartered by the Congress in 1967 to improve governance at all levels—local, regional, state, national, and international.

(4) yearly performance plans and reports. However, just as leadership for reducing hazardous fuels is fragmented among Interior, the Forest Service, and the states, so too is implementation of a performance accountability framework. As a result, (1) high-risk communities have not been identified and prioritized, (2) multiple strategies have been developed with different goals and objectives, (3) quantifiable indicators of performance have not been developed to measure progress in reducing risks, and (4) annual plans and reports that have been developed do not describe what will be accomplished with the appropriated funds. Therefore, it is not possible to determine if the \$796 million appropriated for hazardous fuels reduction in fiscal years 2001 and 2002 is targeted to the communities and other areas at highest risk of severe wildland fires.

Federal land management agencies do not have adequate data for making informed decisions and measuring the agencies' progress in reducing hazardous fuels. These processes require accurate, complete, and comparable data. The infusion of hundreds of millions of dollars of new money for hazardous fuels reduction activities for fiscal years 2001 and 2002 and the expectation of sustained similar funding for these activities in future fiscal years accentuate the need for accurate, complete, and comparable data. However, the five federal land management agencies have not initiated the research needed to better identify and prioritize wildland-urban interface communities within the vicinity of federal lands that are at high risk from wildland fire. Moreover, the agencies are not collecting the data required to determine if changes are needed to expedite the project-planning process. They are also not collecting the data needed to measure the effectiveness of efforts to dispose of the large amount of brush, small trees, and other vegetation that must be removed to reduce the risk of severe wildland fire.

We agree with the National Academy of Public Administration that an interagency national council is needed to provide the strategic direction, leadership, coordination, conflict resolution, and oversight and evaluation necessary to ensure that funds appropriated to implement the hazardous fuels reduction, as well as other elements of the National Fire Plan, are spent in an efficient, effective, and timely manner. However, even though the September 2000 National Fire Plan—prepared at the request of the President of the United States—directed them to establish a similar Cabinet-level coordinating team, the Secretaries of the Interior and of Agriculture have not done so. Therefore, we suggest that the Congress consider directing the Secretaries to immediately establish the council. In addition, we suggest that the Congress consider directing the Secretaries to consolidate under the council the current fragmented implementation

of a sound performance accountability framework. We also recommend
that the Secretaries of the of the Interior and Agriculture gather the data to
make more informed decisions and to measure the agencies' progress in
reducing hazardous fuels. The departments of Agriculture and the Interior
generally agreed with our recommendations. However, they were
concerned that we had not given them enough credit for several actions
taken or underway related to enhancing interagency leadership;
establishing a framework to ensure that funds appropriated to reduce
hazardous fuels are spent in an efficient, effective, and timely manner; and
undertaking adequate research and data collection efforts. Where
appropriate, we have included reference to these activities.

Background

The federal government's share of the nation's total surface area, is now about 29 percent. Today, four agencies—the National Park Service, the Fish and Wildlife Service, and the Bureau of Land Management within the Department of the Interior and the Forest Service within the Department of Agriculture—manage about 655 million acres, or 96 percent of all federal lands. In addition, Interior's Bureau of Indian Affairs manages another 55 million acres. Most federal lands in the 48 contiguous United States are located in 11 western states.

Primarily as a result of human activities, ecological conditions on 211 million acres—or almost one-third of all federal lands and about 10 percent of the nation's total surface area—continue to deteriorate. According to a 2001 update of federal wildland fire management policy, these ecological conditions have increased "the probability of large, intense fires beyond any scale yet witnessed."⁷ A 1994 report on wildland fire disasters states that these fires "will periodically and tragically overwhelm our best efforts at fire prevention and suppression."⁸ Coupled with the explosive growth of people and structures in the wildland-urban interface, these fires have, in turn, increased the risks to communities, watersheds, ecosystems, and species. They have also placed in jeopardy

⁷ See *Review and Update of the 1995 Federal Wildland Fire Management Policy*, Report to the Secretaries of the Interior, of Agriculture, of Energy, of Defense, and of Commerce; the Administrator, Environmental Protection Agency; and the Director, Federal Emergency Management Agency, by an Interagency Federal Wildland Fire Policy Review Working Group (Jan. 2001).

⁸ See *Report of the National Commission on Wildfire Disasters* (1994). The National Commission on Wildfire Disasters was established on May 9, 1990, by the Wildfire Disaster Recovery Act of 1989 (Pub. L. No. 101-286).

the lives of the public as well as the lives of the firefighters charged with controlling or suppressing them.

For fiscal years 1998 through 2002, the administration has requested and the Congress has appropriated funds to the five major federal land management agencies specifically to reduce hazardous fuels on federal lands. (See table 1.) Each of the agencies then allocates the funds through their individual organizational structures to their field units.

Table 1: Funds Appropriated to Reduce Hazardous Fuels on Federal Lands, Fiscal Years 1998- 2002

Dollars in millions					
	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002
Agency	Actual	Actual	Actual	Actual	Est.
Forest Service	\$50.0	\$67.0	\$70.0	\$205.6	\$209.0
Bureau of Land Management	6.7	10.6	12.3	91.7	86.3
National Park Service	7.0	9.8	9.7	36.1	34.6
Fish and Wildlife Service	4.1	7.4	7.1	24.5	23.7
Bureau of Indian Affairs	2.3	6.3	8.8	43.1	41.5
Total	\$70.1	\$101.1	\$107.9	\$401.0	\$395.2

Source: GAO analysis of data provided by the Forest Service and the Department of the Interior.

The Federal Effort to Reduce Hazardous Fuels Lacks Clearly Defined and Effective Leadership

Our work has shown that a single focal point is critical for efforts—such as reducing severe wildland fires and the vegetation that fuels them—that involve many federal agencies as well as state and local governments, the private sector, and private individuals.⁹ However, over a year after the Congress substantially increased funds to reduce hazardous fuels, the federal effort still lacks clearly defined and effective leadership. Rather than a single focal point, authority and responsibility remain fragmented among Interior, the Forest Service, and the states.

In a December 2001 report, a panel of the National Academy of Public Administration (NAPA) concluded that an interagency national council is needed to implement both the Federal Wildland Fire Management Policy

⁹ For example, we have observed that the federal government's efforts to combat terrorism have suffered because there is no single leader in charge of the many functions conducted by different federal departments and agencies.

	and the National Fire Plan. Therefore, NAPA recommended that the Secretaries of the Interior and Agriculture immediately form and empower such a council.
Rather Than a Single Focal Point, Leadership and Management Are Fragmented	To be accountable for reducing hazardous fuels and other key elements of the National Fire Plan, the plan directed the Secretaries of the Interior and of Agriculture to "establish a Cabinet-level coordinating team to ensure that the actions recommended by the Departments receive the highest priority." However, rather than establish one Cabinet-level coordinating entity, the Secretaries established two separate entities.
	In January 2001, the Secretary of the Interior established the Office of Wildland Fire Coordinator to coordinate and integrate the fire management programs of the Department's four land management agencies as well as the related activities of two other Interior agencies— the U.S. Geological Survey and the Bureau of Reclamation. That same month, the Secretary of Agriculture established a National Fire Plan Implementation Team headed by a National Fire Plan Coordinator. The coordinator and team are to work with stakeholders to achieve the goals of the National Fire Plan by assisting them in developing work plans, budgets, accomplishment reports, and operating principles.
	In September 2001, Interior's Office of Wildland Fire Coordinator organized a Wildland Fire Steering Group consisting of representatives from Interior's four land management agencies. A representative from the Forest Service's National Fire Plan Implementation Team serves as an advisory member. The group is to "provide leadership and oversight for the fuels management program" and unite Interior's agencies and programs under the common purpose of reducing risks to communities and improving land health.
	Figure 1 depicts the entities established by Interior and Agriculture to coordinate hazardous fuels reduction and other key elements of the National Fire Plan.



Figure 1: Entities Established by Interior and Agriculture to Coordinate Hazardous Fuels Reduction and Other Key Elements of the National Fire Plan

Source: Managing Wildland Fire: Enhancing Capacity to Implement the Federal Interagency Policy, A Report by a Panel of the National Academy of Public Administration for the United States Department of the Interior (Dec. 2001).

In addition to the three coordination entities established within Interior or Agriculture, the Western Governors' Association in September 2000 established a fourth coordination entity.¹⁰ This entity—composed of stakeholders from all levels of government, tribal interests, conservation and commodity groups, and community-based restoration groups—has

¹⁰ The Western Governors' Association is an independent non-partisan organization of governors from 18 western states as well as two territories and a commonwealth in the Pacific. Its mission is to identify and address key policy and governance issues in the West, advance the role of Western states in the federal system, and strengthen the social and economic fabric of the region.

	assumed roles and responsibilities similar to those of the other three coordination entities. For example, the coordination entity established by the Western Governors' Association has developed a 10-year strategy for reducing wildland fire risks to communities and the environment ¹¹ and is developing a plan to implement its strategy. However, the Secretaries of the Interior and of Agriculture have not delegated clear authority to any of the four groups to implement the National Fire Plan, including hazardous fuels reduction, or to unite the agencies' programs to reduce risks to communities and improve land health.
The National Academy of Public Administration Has Proposed Establishing a Single Focal Point	NAPA's December 2001 report for the Department of the Interior observed that (1) the current approach to coordinate the implementation of the Federal Wildland Fire Management Policy and the National Fire Plan is not working and (2) a coordinated interagency, intergovernmental, and interdisciplinary approach is needed to implement the policy and the plan. The report evaluated a wide variety of options for establishing and locating an effective interagency coordination entity. These options ranged from establishing a typical interagency coordination committee to creating a wildland fire czar or combining the five federal land management agencies into a new Department of Natural Resources. NAPA concluded that a National Wildland Fire Policy Implementation Council was needed to implement both the policy and the plan. Therefore, NAPA recommended that the Secretaries of the Interior and Agriculture immediately form and empower such a council. (See figure 2.)

¹¹ A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy, (Aug. 2001).



Figure 2: Proposed National Wildland Fire Policy Implementation Council

Source: Managing Wildland Fire: Enhancing Capacity to Implement the Federal Interagency Policy, A Report by a Panel of the National Academy of Public Administration for the United States Department of the Interior (Dec. 2001).

According to NAPA, this council should (1) consist of the heads of the five federal land management agencies and the respective deputy secretary in both Interior and Agriculture; (2) have adequate, permanent, interdisciplinary staff in both departments to support the work of the council as well as implementation of the policy and the plan; (3) be advised by a committee composed of states and other nonfederal parties; and (4) seek advice and active participation in implementing the policy and plan from other federal agencies. However, according to NAPA, if the council cannot ensure effective implementation of the policy and plan within 3 years, "it would be advantageous to find ways to make the Council a more unified operation."

Little Progress Made In Implementing a Sound Performance Accountability Framework to Spend Funds Appropriated to Reduce Hazardous Fuels Effectively	A sound framework to ensure that funds appropriated to reduce hazardous fuels are spent in an efficient, effective, and timely manner is needed. Such a framework is grounded in federal wildland fire management policies, the National Fire Plan, and Congressional direction. ¹² This framework includes, among other things, (1) consistent criteria to identify and prioritize wildland-urban interface communities within the vicinity of federal lands that are at high risk from severe wildland fires; (2) clearly defined and outcome-oriented goals and objectives, as well as quantifiable long-term and annual performance measures, to assess progress in reducing the risks of severe wildland fires in wildland-urban interface areas as well as in other areas; (3) a comprehensive long-term strategy that incorporates the criteria, goals, objectives, and measures; and (4) yearly performance plans and reports. However, just as leadership for reducing hazardous fuels is fragmented among Interior, the Forest Service, and the states, so too is implementation of a performance accountability framework. As a result, (1) high-risk communities have not been identified and prioritized, (2) multiple strategies have been developed with different goals and objectives, (3) quantifiable indicators of performance have not been developed to measure progress in reducing risks, and (4) annual plans and reports that have been developed do not describe what will be accomplished with the funds appropriated for hazardous fuels reduction. Therefore, it is not possible to determine if the \$796 million appropriated for hazardous fuels reduction in fiscal years 2001 and 2002 is targeted to the communities and other areas at highest risk of severe wildland fires.
A Sound Performance Accountability Framework	The Federal Wildland Fire Management Policy provides the philosophical and policy foundation for hazardous fuels reduction as well as for other federal interagency wildland fire management activities conducted under the National Fire Plan. In addition, the acts making appropriations to Interior and the Forest Service for fiscal years 2001 and 2002 and their legislative histories provide clear direction to the five federal land

Communities (GAO/T-RCED-98-273, Sept. 28, 1998), Western National Forests: Nearby Communities Are Increasingly Threatened by Catastrophic Wildfüres (GAO/T-RCED-99-79, Feb. 9, 1999), Western National Forests: A Cohesive Strategy is Needed to Address Catastrophic Wildfüre Threats (GAO/RCED-99-65, Apr. 2, 1999), and Western National Forests: Status of Forest Service's Efforts to Reduce Catastrophic Wildfüre Threats (GAO/T-RCED-99-241, June 29, 1999).

management agencies concerning funding priorities related to reducing hazardous fuels. The Government Performance and Results Act of 1993 (the Results Act) provides a framework that can be used to implement the Federal Wildland Fire Management Policy, the National Fire Plan, and the Congressional direction.

 Wildland Fire-Specific Policy and Congressional Direction
 Severe wildland fires and the vegetation that fuels them do not recognize the administrative boundaries of the individual federal land management agencies or the boundaries between federal and nonfederal lands. To address this challenge, the Federal Wildland Fire Management Policy calls for federal agencies to develop a uniform, national federal wildland fire management process to enhance efficient and effective management across administrative boundaries on a landscape scale.¹³
 Toward this end, the policy urges coordination, consistency, and agreement not only among the five federal land management agencies but

agreement not only among the five federal land management agencies but also between these agencies and other federal agencies as well as state, tribal, and private stakeholders. It stresses the need for these parties to jointly (1) develop clearly defined fire management goals and objectives, (2) establish consistent criteria for evaluating ecosystem conditions in order to prioritize areas for treatment, (3) monitor results, and (4) conduct a fire research program to improve the understanding of fire behavior and its role in ecosystems.

The acts making appropriations to Interior and the Forest Service for fiscal years 2001 and 2002 and their legislative histories complement the Federal Wildland Fire Management Policy. For example, the policy identifies the need for a consistent national process to assess wildlandurban interface hazards, risks, values, and losses in order to prescribe mitigation measures, including hazardous fuels reduction. The fiscal year 2001 appropriations act required the Secretaries of the Interior and of Agriculture, after consultation with state and local firefighting agencies, to publish jointly in the *Federal Register* a list of all wildland-urban interface communities, as defined by the Secretaries, within the vicinity of federal lands that are at high risk from wildfire, as defined by the Secretaries. The list was to be published by December 10, 2000.

¹³ A landscape is an area composed of interacting and interconnected patterns of habitats (ecosystems) that are repeated because of the geology, landform, soils, climate, biota, and human influences throughout the area. A landscape is composed of watersheds and smaller ecosystems. It is the building block of biotic provinces and regions.

In addition, the conference committee report accompanying the fiscal year 2001 appropriations act directed the Secretaries of the Interior and of Agriculture to "engage governors in a collaborative structure to cooperatively develop a coordinated National 10-Year Comprehensive Strategy with the states as full partners in the planning, decision making, and implementation of the [National Fire] plan." According to the report, "key decisions should be made at the local levels." Moreover, in an effort to ensure accountability for the appropriated funds, the report directed the Secretaries of the Interior and of Agriculture to develop an action plan and a companion financial plan to provide operational and financial details.

The Results Act seeks to improve the effectiveness, efficiency, and accountability of federal programs by establishing a system for agencies to set goals for their programs' performance and to measure results. In an October 1999 report, we set forth a framework for using the Act to improve performance accountability within the Forest Service.¹⁴ The same framework can be used to effectively implement the Federal Wildland Fire Management Policy, the National Fire Plan, and Congressional direction. Specifically, to improve their efforts, the five federal land management agencies would need to:

- establish consistent criteria to identify and prioritize wildland-urban interface communities within the vicinity of federal lands that are at high risk from severe wildland fires.
- develop clearly defined and outcome-oriented goals and objectives, as well as quantifiable long-term and annual performance measures, to assess progress in reducing the risks of severe wildland fires in wildland-urban interface areas as well as in other areas.
- incorporate the criteria, goals, objectives, and measures into a comprehensive 10-year strategy.
- use the strategy to develop yearly action plans and as a basis for reporting accomplishments in future fiscal years' budget requests.

The Results Act Provides a Framework to Implement the Federal Wildland Fire Management Policy and Congressional Direction

¹⁴ See Forest Service: A Framework for Improving Accountability (GAO/RCED/AIMD-00-2, Oct. 13, 1999).

High-Risk Communities Have Not Been Identified and Prioritized

The fiscal year 2001 appropriations act required the Secretaries of Agriculture and of the Interior to jointly publish in the *Federal Register* by January 2001 a list of all "urban-wildland interface communities," as defined by the Secretaries, "within the vicinity of federal lands that are at high risk from wildfire," as defined by the Secretaries. However, as a result of inconsistencies in the processes that Interior and the Forest Service used to identify and prioritize communities for funding, it is not known whether the communities being funded are the ones at highest risk of wildland fire.

Interior and the Forest Service did not establish well-defined criteria to identify wildland-urban interface communities within the vicinity of federal lands that are at high risk from severe wildland fire. Instead, each state and tribe was allowed to use different data and criteria for identifying communities at risk. For example, California considered communities within 1.5 miles of federal lands to be at high risk from wildland fire. Idaho, on the other hand, considered communities within 20 miles of federal lands to be at high risk within 20 miles of federal lands to be at high risk. The individual state lists were then published in the *Federal Register* in January 2001.

The January 2001 *Federal Register* notice provided the federal government's initial definition of wildland-urban interface communities. The notice defined wildland-urban interface community to mean those communities "where humans and their development meet or intermix with wildland fuel." The notice identified three types of wildland-urban interface communities: (1) "interface community," where structures directly abut wildland fuels; (2) "intermix community," where structures are scattered throughout a wildland area; and (3) "occluded community," where structures abut an island of wildland fuels such as a park.

In addition, the January 2001 *Federal Register* notice provided preliminary criteria that were to be used by the Secretaries of the Interior and of Agriculture to rank and prioritize communities for treatment. These criteria included (1) three "risk factors" for evaluating the risk to wildland-urban interface communities (fire behavior potential; values at risk; and infrastructure) and (2) two or three "situations" that contribute to risk for each of the three factors. For example, the two situations for values at risk divided communities into those in an "urban interface setting" and those in an "intermix or occluded setting."

However, rather than the Secretaries ranking and prioritizing communities for treatment, they deferred this responsibility to the states in February 2001 guidance. The definition of wildland-urban interface communities as well as the risk factors and situations in the January 2001 *Federal Register* notice were very general and were subject to broad interpretation by the states. Moreover, the guidance (1) did not specifically identify federal lands that are at high risk from wildland fire and (2) did not define what is meant by "within the vicinity of" federal lands.

Without knowing which federal lands are at high risk from wildland fire or what is meant by "within the vicinity of" federal lands and with the risk factors and situations subject to broad interpretation, each state used criteria that it believed to be appropriate for identifying communities at risk. For example, some states identified communities within the vicinity of (1) small units of federal land, such as lighthouses and cemeteries, which are not at high risk from wildland fire and (2) lands managed by federal agencies other than the five agencies receiving the funds to reduce hazardous fuels. In addition, two states—California and Idaho refused to rank their communities published in the January 2001 *Federal Register* notice on the basis of the definition of wildland-urban interface communities as well as the risk factors and situations in the notice.

By May 2001, the states had identified over 22,000 communities that they believed to be at high risk from wildland fire. By August 2001, Interior and the Forest Service had reduced this number by about half by excluding communities that (1) are near lands managed by other federal agencies or (2) they believed are not within the vicinity of lands that they manage that are at high risk from wildland fire. In August 2001, Interior and the Forest Service published the remaining 11,376 communities in the *Federal Register*. Interior and the Forest Service then used different approaches to prioritize these communities for funding.

To help prioritize the 11,376 communities for funding, Interior assigned numeric values to each of the "situations" in the January 2001 *Federal Register* notice. However, this approach, coupled with the refusal of California and Idaho to rank their communities published in the January 2001 *Federal Register* notice—resulted in over half of the "highest-risk" communities (278 of 545) being in three southeastern states—Georgia, North Carolina, and Tennessee—that are not prone to severe wildland fires. (See figures 3 and 4.)



Figure 3: Location of Major Wildland Fires During the 2000 Wildland Fire Season

Note: Occurrences in Alaska and Hawaii are not included.

Source: Adapted by GAO from U.S. Department of the Interior data.

Figure 4: Number of Communities by State Identified by Interior as Being at Highest Risk from Wildland Fire



Source: Adapted by GAO from U.S. Department of the Interior data.

	Interior next convened state teams consisting of state, state forestry, and/or local officials to select projects on federal lands within the wildland-urban interface that are either near the 545 communities or near other communities that the states proposed, including communities in Idaho and California. The state-by-state lists were then forwarded to Interior's headquarters for approval. According to Interior, for fiscal year 2002, it is funding projects near these communities. Thus, the projects being funded by Interior are not based on a consistent national prioritization of communities at high risk from wildfire.
	The Forest Service, on the other hand, left the prioritization of communities and projects primarily to the discretion of its field unit managers. The agency's headquarters did, however, instruct its field unit managers to use the August 2001 list of 11,376 communities as guidance in identifying projects for funding. The lists developed by the field unit managers were then forwarded to the Forest Service's headquarters for approval. Thus, the projects being funded by the Forest Service are also not based on a consistent national prioritization of communities at high risk from wildfire.
Multiple Strategies For Reducing Hazardous Fuels Have Been Developed With Different Goals and Objectives	The conference committee report accompanying the fiscal year 2001 appropriations act directed the Secretaries of the Interior and of Agriculture to "engage governors in a collaborative structure to cooperatively develop a coordinated National 10-Year Comprehensive Strategy with the states as full partners in the planning, decision making, and implementation of the plan." However, rather than one comprehensive strategy, Interior, the Forest Service, and the states have developed multiple strategies with different goals and objectives.
	For example, in August 2001, the Secretaries of the Interior and of Agriculture endorsed a 10-year strategy for reducing wildland fire risks to communities and the environment. ¹⁵ The strategy included four goals, one of which is to reduce hazardous fuels. Moreover, during fiscal year 2001, three of the five federal land management agencies—the National Park Service, the Bureau of Land Management, and the Bureau of Indian Affairs—developed agency-specific implementation strategies.

¹⁵ A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy, (Aug. 2001).

In September 2001, Interior and Forest Service officials informed the Congress that they were working together to develop a cohesive strategy to reduce hazardous fuels. According to these officials, the cohesive strategy will combine a long-term strategy finalized by the Forest Service in October 2000¹⁶ and a draft strategy developed by Interior in June 2001.¹⁷ Like the 10-year strategy, the cohesive strategy being developed by Interior and the Forest Service is intended to provide a framework for reducing the risk and consequences of unwanted wildland fire. It is also intended to provide direction to, and coordinate the activities of, the five federal land management agencies.

However, Interior and the Forest Service are developing their cohesive strategy to reduce hazardous fuels independent of, and apart from, the 10year strategy prepared pursuant to the conference committee report. Moreover, the agency-specific implementation strategies developed by the National Park Service, the Bureau of Land Management, and the Bureau of Indian Affairs are not linked to each other or to the 10-year strategy, the cohesive strategy being developed, or the Forest Service's final and Interior's draft long-term strategies to reduce hazardous fuels. In addition, the 10-year strategy has different goals and objectives than the Forest Service's final and Interior's draft long-term strategies on which the cohesive strategy is based. For instance, two priorities under the long-term strategies of both the Forest Service and Interior—conserving accessible municipal watersheds and protecting threatened and endangered species—do not appear as priorities under the 10-year strategy.

According to Interior and Forest Service headquarters officials, they have developed, or are developing, numerous strategies that are not linked and that have different goals and objectives primarily because they have planned and managed their lands on an agency-by-agency basis for decades. Moreover, they observed that since Interior, the Forest Service, and the states have not been able to agree on one strategy or on similar goals and objectives, they have gone their separate ways. However, according to Interior and Forest Service headquarters officials, they will

¹⁶ Protecting People and Sustaining Resources in Fire-Adapted Ecosystems: A Cohesive Strategy, The Forest Service Management Response to the General Accounting Office Report GAO/RCED-99-65 (Oct 13, 2000).

¹⁷ Integrating Fire and Natural Resource Management – A Cohesive Strategy For Protecting People by Restoring Land Health, The Department of the Interior (June 2001).

continue to work with the states in an effort to reach agreement on one strategy and on similar goals and objectives.

Clearly Defined, Outcome-Oriented Objectives and Quantifiable Performance Indicators Have Not Been Developed to Measure Progress in Reducing Risks

To assess progress in reducing the risks of severe wildland fires in wildland-urban interface areas as well as in other areas requires clearly defined and outcome-oriented goals and objectives as well as quantifiable long-term and annual performance measures. However, none of the strategies developed to date contain clearly defined, outcome-oriented objectives or quantifiable performance indicators.

For example, although one of the four broad goals under the 10-year strategy is to "reduce hazardous fuels," the strategy lacks clearly defined, outcome-oriented objectives between this broad goal and long-term and the annual performance measures intended to gauge the agencies' progress in achieving the goal. For instance, one objective of the strategy is to "reduce the total number of acres at risk to severe wildland fire." However, this objective does not distinguish between those landscapes where science indicates that frequent fire use to predominate and now does not and those landscapes that normally burn less frequently and where efforts to reduce fire intensity would disrupt and damage forest health.

Another objective of the 10-year strategy is to "ensure communities most at risk in the wildland-urban interface receive priority for hazardous fuels treatment." However, the strategy does not include any clearly defined, outcome-oriented objectives that can be used to assess the agencies' progress in achieving this goal.

In addition, the strategies developed by the Forest Service, Interior, the National Park Service, the Bureau of Land Management, and the Bureau of Indian Affairs do not contain consistent national performance measures and reporting procedures. For instance, the Forest Service proposes to measure and report on (1) the percent of wildland-urban interface areas with completed fuels treatments and (2) the percent of all acres with fuel levels meeting "condition class 1;" that is, where human activities have not significantly altered historical fire regimes or where management activities have successfully maintained or restored ecological integrity.¹⁸ Conversely

¹⁸ Managing the Impacts on Communities and the Environment Performance Accountability, Forest Service (May 2001).

	Interior plans to use only the number of acres treated to measure and report to the Congress its progress in reducing hazardous fuels. However, Interior cannot identify how many of these acres are within areas at high risk from wildland fire.
	The 10-year strategy developed by the Western Governors' Association in collaboration with the Departments of the Interior and of Agriculture recognizes the need to develop consistent national performance measures and reporting procedures to aid in monitoring results. The strategy proposes to include these measures and reporting procedures in a detailed implementation plan to be developed by May 1, 2002. In the interim, Interior and the Forest Service have initiated a study to develop "consistent performance measures that capture the intent and new strategic direction of the National Fire Plan and the policies, guidelines and actions of the 2001 Federal Wildland Fire Management Policy." However, as of December 2001, the agencies had not established a clear sequence or schedule to deliver the performance measures and this effort had not been integrated with the effort by the Western Governors' Association to develop a 10-year strategy. Thus, at a minimum, funds appropriated for hazardous fuels reduction for fiscal years 2001 and 2002 have been, or will be, allocated to the five agencies' field units and the President's budget for fiscal year 2003 will be submitted to the Congress before clearly defined, outcome-oriented objectives and quantifiable performance indicators are developed.
Action and Financial Plans Will Describe How Federal Funds Will Be Spent, Not What Will Be Accomplished With the Money	In an effort to ensure accountability for the appropriated funds, the conference committee report accompanying the fiscal year 2001 appropriations act directed the Secretaries of the Interior and of Agriculture to (1) develop an action plan and a companion financial plan to provide operational and financial details and (2) report on accomplishments in future fiscal years' budget requests. However, rather than developing one action plan and one financial plan, in January 2001, the Secretaries of the Interior and of Agriculture signed similar, but separate action plans and financial plans for their respective departments.
	Moreover, while Interior's and the Forest Service's action and financial plans describe the work they plan to accomplish and how they plan to allocate and spend the funds, they do not describe how the work and the expenditure of funds will reduce the risk of severe wildland fires to communities or to other areas at risk on either a local or national basis. For example, both the Forest Service's and Interior's plans consist largely of lists of projects, including their location, cost, and acreage. They do not, however, describe how the projects will reduce the risk of severe wildland

	or national basis. As a result, while the five federal land management agencies will be able to provide the Congress with assurance that they spent the funds appropriated for hazardous fuels reduction for fiscal years 2001 and 2002, they will not be able to report to the Congress on what they accomplished with the money. According to Interior and Forest Service headquarters officials, they have developed separate action plans and financial plans because they have planned and managed their lands on an agency-by-agency basis for decades. Moreover, they observed that, since Interior and the Forest Service prepare separate budget requests and the Congress provides separate action plans and financial plans. Future fiscal years' action plans and financial plans should better describe how their work and their expenditure of funds would reduce the risk of severe wildland fires to communities or to other areas at risk, according to the Interior and Forest Service officials.
Data Are Not Available to Make Informed Decisions and to Measure Progress	Making informed decisions and measuring the agencies' progress in reducing hazardous fuels require accurate, complete, and comparable data. The infusion of hundreds of millions of dollars of new money for hazardous fuels reduction activities for fiscal years 2001 and 2002 and the expectation of sustained similar funding for these activities in future fiscal years accentuate this need. Despite ongoing research efforts to study the effectiveness of fuels treatments, however, the five federal land management agencies have not initiated the research needed to better identify and prioritize wildland-urban interface communities within the vicinity of federal lands that are at high risk from wildland fire. Moreover, although directed to do so in the fiscal year 2001 appropriations act, the agencies are not collecting the data required to determine the effectiveness of changes in the project-planning process. They are also not collecting the data needed to measure the effectiveness of efforts to dispose of the large amount of brush, small trees, and other vegetation that must be removed to reduce the risk of severe wildland fire.
Data Are Not Available to Better Prioritize Communities and Projects for Funding	Through the National Fire Plan, 24 research projects in support of hazardous fuels reduction were funded at a total cost of about \$10.2 million in fiscal year 2001. These projects continue to be funded in fiscal year 2002. The intent of the projects is to study and collect data on, among other things, optimizing fuel reduction, wildfire risk, impacts of fuels

fires to communities, watersheds, ecosystems, or species on either a local

reduction on fire behavior, and effects of fuel reduction on resources such as water, soil, and species.

	Although available data can help focus attention on areas at high risk from severe wildland fire, they are currently not adequate for prioritizing communities and projects for funding, according to many Interior and Forest Service officials to whom we spoke. According to these officials, the agencies need better data on (1) hazard (an area's accumulation of hazardous fuel and its combustibility); (2) risk (the probability of ignition); and (3) value (physical, social, and economic costs of potential damage). Although limited research efforts are underway to study these issues, neither Interior nor the Forest Service has funded a research program to gather these data on a systematic and comprehensive basis.
	For instance, the Forest Service proposed a projectreferred to as LANDFIRE—that within 12 to 18 months could have provided better data on the current condition of the lands and communities at risk in the interior western United States. Within 4 years, LANDFIRE also could have provided these and other data nationwide. However, the project, which was estimated to cost at least \$45 million, has not been funded. As a result, much of the data needed to prioritize communities and projects for funding might never be available.
Data Are Not Available to Determine if Changes Are Needed to Expedite the Project-Planning Process	Before the five federal land management agencies can implement a hazardous fuels reduction project, they must ensure that the project complies with the requirements of numerous environmental statutes addressing individual resources, such as endangered and threatened species, clean water, and clean air. They must also ensure that the project complies with the requirements of various planning laws, whose purpose is to ensure that important effects on the environment are not overlooked or understated. Securing this assurance and completing the required environmental analyses can take a year or more. The fiscal year 2001 appropriations act directed the Secretaries of the Interior, of Agriculture, and of Commerce as well as the Chairman of the Council on Environmental quality to evaluate the need for revised or expedited environmental compliance procedures for hazardous fuels reduction projects occurring within the vicinity of wildland-urban interface communities in fiscal year 2001. To respond to Congressional directive, the Secretaries of the Interior and
	To respond to Congressional directive, the Secretaries of the Interior and of Agriculture identified a number of efforts that they were taking to reduce the time and improve the efficiency of environmental compliance. Specifically, they cited efforts to (1) assign experienced and trained

	personnel to conduct the analyses, (2) provide consistent direction, (3) develop swift dispute resolution procedures, and (4) share information. During the course of our review, agency officials also reported that (1) some field units were sharing experienced and trained personnel, (2) both departments contributed funding to hire additional biologists for determining compliance with the Endangered Species Act, and (3) the Forest Service's Region 3 had streamlined consultation with the U.S. Fish and Wildlife Service on 283 wildland-urban interface projects involving approximately 1.9 million acres. Also, the Forest Service reported that it increased training and coaching as a means of sharing best practices and lessons learned among its field units. While these efforts are clearly a step in the right direction, neither Interior nor the Forest Service is gathering and analyzing the data necessary to show the extent to which they are reducing the time and improving the efficiency of environmental compliance.
Data Are Not Available to Measure the Effectiveness of Efforts to Dispose of the Large Amounts of Material that Must Be Removed	An aggressive, 10-year effort to reduce hazardous fuels on federal lands will require the five federal land management agencies to dispose of large amounts of brush, small trees, and other vegetation that must be mechanically removed before fire can be safely reintroduced. To this end, the Department of the Interior and the Forest Service have prepared a preliminary estimate of the amount of biomass that could be utilized through hazardous fuels treatments, and the Forest Service together with the Department of Energy have studied the economics of biomass utilization. Various efforts are underway to identify viable disposal options, including some that could generate revenue to partially offset the costs of reducing hazardous fuels.
	For instance, the Forest Service is studying the application of small- diameter trees for wood composites and other wood products, the production of ethanol and electricity from the material, and the use of biomass to produce heat and hot water for office buildings and apartment buildings. The Bureau of Land Management is selling wood from mechanical thinning for personal use, such as home heating, in northern New Mexico.
	The successes encountered to date in biomass utilization, however, have been localized. For example, while BLM has been successful in disposing of biomass through the sale of firewood in New Mexico, the Forest Service has been largely unsuccessful with similar efforts in the Front Range west of Denver due largely to differences in lifestyles and burning restrictions. Similar to their efforts to reduce the time and improve the efficiency of environmental compliance, neither Interior nor the Forest Service has gathered and analyzed the data necessary to show on a national scale (1)

the extent to which these efforts are accomplishing their goal of disposing of large amounts of material, (2) how these efforts might be increased, or (3) what would be required to do so.

Conclusions	Without clearly defined and effective leadership, the five federal land management agencies have made little progress in implementing a sound performance accountability framework. Without a sound performance accountability framework, it is not possible to determine if the hundreds of millions of dollars being appropriated each fiscal year for hazardous fuels reduction are being targeted to the communities and other areas at highest risk of severe wildland fires. By not targeting these communities and areas, the risks to human lives and development as well as to municipal watersheds and individual resources—such as threatened and endangered species, clean water, and clean air—are increased.
	Over a year after the Congress substantially increased funds to reduce hazardous fuels, the federal effort still lacks clearly defined and effective leadership. Rather than a single focal point, authority and responsibility remain fragmented among Interior, the Forest Service, and the states. Therefore, we agree with NAPA that an interagency national council is needed to provide the strategic direction, leadership, coordination, conflict resolution, and oversight and evaluation necessary to ensure that funds appropriated to implement the hazardous fuels reduction, as well as other elements of the National Fire Plan, are spent in an efficient, effective, and timely manner. However, even though the September 2000 National Fire Planprepared at the request of the President of the United States—directed them to establish a similar Cabinet-level coordinating team, the Secretaries of the Interior and of Agriculture have not done so.
	Implementation of a sound performance accountability framework to spend funds appropriated to reduce hazardous fuels effectively as well as funds appropriated for other elements of the National Fire Plan is also fragmented among Interior, the Forest Service, and the states. As a result, it is not possible to determine if the \$796 million appropriated for hazardous fuels reduction in fiscal years 2001 and 2002 is targeted to the communities and other areas at highest risk of severe wildland fires. Our findings indicate that there is a need for the agencies' current fragmented performance accountability framework to be consolidated.
	Finally, the infusion of hundreds of millions of dollars of new money for hazardous fuels reduction activities for fiscal years 2001 and 2002 and the expectation of sustained similar funding for these activities in future fiscal

	years accentuate the need for accurate, complete, and comparable data on which to make informed decisions and measure the agencies' progress in reducing hazardous fuels. However, the five federal land management agencies have not initiated the research needed to better identify and prioritize wildland-urban interface communities within the vicinity of federal lands that are at high risk from wildland fire. Moreover, the agencies are not collecting the data required to determine if changes are needed to expedite the project-planning process. They are also not collecting the data needed to measure the effectiveness of efforts to dispose of the large amount of brush, small trees, and other vegetation that must be removed to reduce the risk of severe wildland fire.
Matters for Congressional Consideration	To provide the clearly defined and effective leadership required to ensure that funds appropriated to reduce hazardous fuels as well as to implement other key elements of the National Fire Plan, such as fire suppression, are spent in an efficient, effective, and timely manner, we believe that the Congress should consider directing the Secretaries of the Interior and of Agriculture to establish the interagency national council recommended by National Academy of Public Administration. Moreover, to better ensure that funds appropriated to reduce hazardous fuels as well as funds appropriated for other elements of the National Fire Plan are spent effectively, we believe that the Congress should consider directing the Secretaries of the Interior and of Agriculture to consolidate under the council the current fragmented implementation of a sound performance accountability framework. Such a framework should include, among other things, (1) consistent criteria to identify and prioritize wildland-urban interface communities within the vicinity of federal lands that are at high risk from severe wildland fires; (2) clearly defined and outcome-oriented goals and objectives, as well as quantifiable long-term and annual performance measures, to assess progress in reducing the risks of severe wildland fires in wildland-urban interface areas as well as in other areas; (3) a comprehensive long-term strategy that incorporates the criteria, goals, objectives, and measures; and (4) yearly performance plans
Recommendation for Executive Action	and reports. To make more informed decisions about, and to better measure progress in, reducing hazardous fuels, we recommend that the Secretaries of the Interior and of Agriculture jointly direct the heads of the National Park Service, the Fish and Wildlife Service, the Bureau of Land Management, the Bureau of Indian Affairs, and the Forest Service to collect the accurate,

	complete, and comparable data needed to (1) better identify and prioritize wildland-urban interface communities within the vicinity of federal lands that are at high risk from wildland fire, (2) determine if changes are needed to expedite the project-planning process, and (3) measure the effectiveness of efforts to dispose of the large amount of brush, small trees, and other vegetation that must be removed to reduce the risk of severe wildland fire.
Agency Comments and Our Evaluation	We provided a draft of this report to the departments of Agriculture and the Interior for review and comment. The departments provided a consolidated response to our report. They generally agreed with our recommendations. However, the departments expressed concerns that we had not given them enough credit for several actions taken or underway related to (1) enhancing interagency leadership; (2) establishing a framework to ensure that funds appropriated to reduce hazardous fuels are spent in an efficient, effective, and timely manner; and (3) undertaking adequate research and data collection efforts. First, with respect to enhancing interagency leadership, the departments felt that we should consider the efforts of its officials to work together and what has been accomplished in the short period of time since adoption of the National Fire Plan. For example, they noted a close working relationship between the National Fire Plan Coordinators and cited various efforts to collaborate among the federal agencies. During the course of our review we noted this close working relationship and efforts to collaborate. However, our report notes that the federal government's efforts to reduce hazardous fuels lack clearly defined and effective leadership because this leadership is fragmented among the Department of Agriculture's Forest Service, the Department of the Interior, and the states. Thus, our discussions in the report pertain to the leadership structure for fuels reduction efforts, not to the relationships or efforts at collaboration among individual agency officials. More than these relationships and collaboration are necessary to develop and implement a framework to effectively spend funds appropriated to reduce hazardous fuels. Our work over the years has shown that the effective coordination and implementation of interagency programs requires effective leadership from a single focal point empowered with the authority and responsibility for interagency actions. For example, we have observed that the federal governm
	federal departments and agencies. We continue to believe that a single focal point is crucial to resolve discrepancies and to finalize decisions on

fuel reduction issues for which stakeholders may have differing viewpoints and that the Congress should consider establishing the interagency national council recommended by the National Academy of Public Administration.

Second, with regard to establishing a framework to ensure funds appropriated to reduce hazardous fuels are spent in an efficient, effective, and timely manner, the departments state that all agencies have such frameworks and they are making efforts to improve them, sometimes on a joint basis. For example, they note that they plan to incorporate wildland fire performance measures in the implementation plan for the 10-Year Comprehensive Strategy. However, on the basis of our review of the 10-Year Comprehensive Strategy we believe it contains a series of actions that are largely unclear, not specific, and output-oriented rather than results-oriented and the actions contained in the strategy appear difficult to measure, thus making it difficult for the agencies and states to develop corresponding performance indicators. Moreover, our report notes that performance measures are only one part of the needed framework. The framework that we refer to in our report includes several components that are contemplated by the National Wildland Fire Management Policy, the National Fire Plan, the Government Performance and Results Act, and the fiscal year 2001 appropriations act for the Department of the Interior. These components are: (1) consistent criteria to identify and prioritize wildland-urban interface communities within the vicinity of federal lands that are at high risk from severe wildland fire; (2) clearly defined and outcome-oriented goals and objectives; (3) quantifiable and long-term performance measures to assess progress in meeting these strategic objectives; (4) a comprehensive long-term strategy that incorporates the criteria, goals, objectives, and performance measures; and (5) yearly performance plans and measures. Additionally, the agencies need to use the same such framework, not separately defined ones. Because the Forest Service and the Department of the Interior have not collectively and adequately developed these components, they have not developed the framework to ensure that funds appropriated to reduce hazardous fuels are spent in an efficient, effective, and timely manner. Moreover, the agencies' current efforts at developing such a framework are divided into two separate strategic documents—the 10-Year Comprehensive Strategy developed with the states and a second, interagency cohesive strategy currently being drafted. During our review, officials from both departments told us that they were unclear as to which strategy will be controlling.

Finally, the departments noted that some research has been initiated and some data collection is underway. They mentioned several specific

research and data collection efforts that they felt we should have mentioned, and we have now included several. For example, we have revised our report to include research and data collection efforts on environmental compliance, biomass utilization, and fuels reduction effectiveness. However, our discussion in the report centers on the fact that the Forest Service and Interior are collecting data that, for the most part, are not national in scope. For example, the Forest Service and Interior have been reluctant to collect the necessary data to better prioritize communities and projects nationwide for hazardous fuels treatment. On the basis of our review, LANDFIRE is the only proposed research project so far that appears capable of producing consistent national inventory data for improving the prioritization of fuel projects and communities. We first learned of the LANDFIRE project in 1998 during our initial work on catastrophic wildfires in western national forests.¹⁹ At that time, the Forest Service was testing a prototype to determine the feasibility of LANDFIRE. During this review, which is about 3 years after our initial review in 1998, the Forest Service showed us this same prototype. Also, during our current review, we observed that the enthusiasm for moving forward with LANDFIRE waned due to disputes over content and funding considerations. As a result, we believe LANDFIRE or some similar project for producing consistent national inventory data for improving the prioritization of fuels projects and communities is no closer to being funded today than it was in 1998. Thus, agency promises with regard to research and data collection efforts--as with enhancing interagency leadership and ensuring funds are spent in an efficient, effective, and timely manner--are not new. The departments have been pledging to jointly undertake improvements in all of these areas since at least the adoption of the 1995 Federal Wildland Fire Management Policy.

Where appropriate, we have included additional references to the activities mentioned in the department's comments. The departments' comments appear in appendix I.

Scope and Methodology

In reviewing the efforts of the Forest Service and the Department of the Interior to reduce hazardous fuels, we considered available literature, reviewed pertinent legislation and policies, examined agency documents

¹⁹ Western National Forests: A Cohesive Strategy is Needed to Address Catastrophic Wildfire Threats. (GAO/RCED-99-65, Apr. 2, 1999).

and budget data, conducted interviews, and visited agency field units. Specifically, we reviewed prior GAO reports, the report by the National Academy of Public Administration, reports by conservation groups and trade organizations, the agencies' cohesive strategies for fuels reduction, the 10-Year Comprehensive Strategy, and other agency documentation. We also analyzed requirements germane to hazardous fuels in the Government Performance and Results Act, the 1995 Federal Wildland Fire Management Policy, and the acts making appropriations to the Department of the Interior and the Forest Service for fiscal years 2001 and 2002. We interviewed Forest Service, Department of Interior, and state officials on efforts to reduce hazardous fuels, issues that transcend the administrative boundaries of the lands they manage, their organizational structures, efforts to prioritize communities and projects for treatment, research activities, information systems, environmental compliance, and disposal of biomass. In addition, we toured federal lands that agency personnel treated for hazardous fuels in Colorado, New Mexico, and California

We conducted our work from November 2000 through December 2001 in accordance with generally accepted government auditing standards. For a more detailed discussion of our scope and methodology, see appendix II.

We are sending copies of this report to the Chairman, Subcommittee on Public Lands and Forests, Senate Committee on Energy and Natural Resources; the Ranking Minority Member, House Committee on Resources; the Ranking Minority Member, Subcommittee on Forests and Forest Health, House Committee on Resources; the Ranking Minority Member, Subcommittee on Interior and Related Agencies, House Committee on Appropriations; the Ranking Minority Member, Subcommittee on Department Operations, Oversight, Nutrition, and Forestry, House Committee on Agriculture; and interested congressional committees. We are also sending copies of this report to the Secretaries of the Interior and of Agriculture; the Chief, Forest Service; the Director, Bureau of Land Management; and the Director, National Park Service. The report is also available on GAO's home page at http://www.gao.gov. If you have any questions about this report, please call Chester F. Janik or me at (202) 512-3841. Key contributors to this report are listed in Appendix III.

T. Kui ۲

Barry T. Hill Director, Natural Resources and Environment

List of Requesters

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

The Honorable James Hansen Chairman, Committee on Resources House of Representatives

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

The Honorable Joe Skeen Chairman, Subcommittee on Interior and Related Agencies Committee on Appropriations House of Representatives

The Honorable Bob Goodlatte Chairman, Subcommittee on Department Operations, Oversight, Nutrition, and Forestry Committee on Agriculture House of Representatives

The Honorable Mark Udall House of Representatives

The Honorable Don Young House of Representatives

Appendix I: Comments From the Departments of the Interior and Agriculture

	WASHINGTON		
THE DEPARTMENT OF AGRICULTURE		THE DEPARTMENT OF THE INTERIOR	
January 16, 2002			
Barry T. Hill, Director Natural Resources and Environmen United States General Accounting C 441 G. Street, N.W. Washington, D.C. 20548			
Dear Director Hill:			
Thank you for the opportunity to re-		D-02-259 entitled, "Severe Wildland Risks to Communities and Resources."	
Executive Action that more can be of National Fire Plan activities. We all be done to enhance leadership, coor on activities associated with the Nat accomplished both on-the-ground Departments of the Interior and Agr National Fire Plan activities. We ar believe that the approaches that we positive results for communities and successes to date are built on newly with State and local governments ar	done to collect accura lso do not disagree wi rdination, integration, tional Fire Plan. We l d and organizationally riculture received dire re currently addressing are taking together wi d the resources. We w v strengthened intergound nd other partners on th	g many issues raised in the report and ill continue to have effective and would also note that many of the vernmental, collaborative relationships	•
fewer acres were burned as compare fuel load conditions on public lands country experienced great drought. claim full credit. But there is evider	Its are important. This ed to the acres burned s continued to be sever Because of the unpre nce that the additional National Fire Plan made	is past fire season almost five million I in 2000. This occurred in a year when re and when several regions of the edictability of fire ignitions, we cannot I funds and fuel treatments and de a difference in the suppression and	
In response to the first recommenda concept to the establishment of an in		s of the Interior and Agriculture agree in n July in testimony before the	









together will continue to have effective and positive results for communities and the resources. As with all successes, gains are made one step at a time. We believe that given adequate time and continued funding, the improvements already underway in leadership, interagency coordination, and improved research and integrated data collection will become realities. Marke Ray 252 LYNN SCARLETT MARK REY Assistant Secretary Under Secretary Natural Resources and the Environment Policy, Management and Budget U.S. Department of the Interior U.S. Department of Agriculture 6

Appendix II: Objectives, Scope, and Methodology

In this report we discuss (1) the need for clearly defined and effective leadership to reduce the buildup of hazardous vegetation that fuels severe wildland fires, (2) the progress that the five federal land management agencies have made in implementing a sound framework to spend effectively the funds appropriated for hazardous fuels reduction, and (3) the availability of data on which to make informed decisions and to measure progress.

To identify the need for clearly defined and effective leadership, we reviewed prior GAO and other reports and studies addressing issues that transcend the administrative boundaries of the individual federal agencies and/or the boundaries between federal and nonfederal lands. We then identified efforts to date by Interior, Agriculture, and the states to establish such an entity that could address interagency issues.

To identify the progress that the five federal land management agencies have made in implementing a sound framework to spend effectively the funds appropriated for hazardous fuels reduction, we reviewed the requirements of the Government Performance and Results Act of 1993 (the Results Act) and an October 1999 GAO report that portrayed the process of implementing the Act within the Forest Service as a number of interrelated steps.¹ As noted in the report, a discussion of what the agency has done to implement each step provides a benchmark for measuring its future progress. We also reviewed the 1995 Federal Wildland Fire Management Policy,² updated in 2001,³ which provides the philosophical and policy foundation for hazardous fuels reduction as well as for other federal interagency wildland fire management activities conducted under the National Fire Plan. In addition, we reviewed the acts making appropriations to Interior and the Forest Service for fiscal years 2001 and 2002 as well as their legislative histories. We then reviewed the 10-year strategy for reducing wildland fire risks to communities and the environment, signed by the Secretaries of the Interior and of Agriculture in August 2001.⁴ We also reviewed

⁴ A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy, (Aug. 2001).

¹ See Forest Service: A Framework for Improving Accountability (GAO/RCED/AIMD-00-2, Oct. 13, 1999).

² *Federal Wildland Fire Management Policy and Program Review*, Report to the Secretaries of the Interior and of Agriculture by an Interagency Federal Wildland Fire Policy Review Working Group (Dec. 18, 1995).

³ Review and Update of the 1995 Federal Wildland Fire Management Policy, Report to the Secretaries of the Interior, of Agriculture, of Energy, of Defense, and of Commerce; the Administrator, Environmental Protection Agency; and the Director, Federal Emergency Management Agency, by an Interagency Federal Wildland Fire Policy Review Working Group (Jan. 2001).

the long-term strategy to reduce hazardous fuels finalized by the Forest Service in October 2000⁵ and a similar draft strategy developed by Interior in June 2001.⁶ In addition, we reviewed the agency-specific implementation strategies developed during fiscal year 2001 by the National Park Service, the Bureau of Land Management, and the Bureau of Indian Affairs. We also reviewed the February 2001 guidance issued by Interior and the Forest Service to the states that defined wildland-urban interface, identified three criteria for evaluating the risk to wildland-urban interface communities, and fire behavior potential that provided some general information on identifying fire risk. In addition, we reviewed and analyzed the various lists of communities that Interior and the Forest Service believed are at high risk from severe wildland fire. We also reviewed the action plans and financial plans signed by the Secretaries of the Interior and of Agriculture in January 2001. These plans were intended to provide the operational and financial details necessary to ensure accountability for appropriated funds.

To identify the availability of data on which to make informed decisions and to measure progress, we reviewed reports and studies on, and interviewed Interior and Forest Service officials about, data available and needed to address challenges that could significantly affect their ability to spend funds appropriated to reduce hazardous fuels in and efficient, effective, and timely manner.

During the course of our review, we interviewed and gathered documentation from Interior and Forest Service officials in their Washington, D.C. headquarters as well as in various field units. These field units included the Forest Service's regional offices in Denver, Colorado (Region 2); Albuquerque, New Mexico (Region 3); and Vallejo, California (Region 5) as well as the Arapaho-Roosevelt and Pike-San Isabel National Forests in Colorado, the El Dorado National Forest in California, and the Santa Fe National Forest in New Mexico. We also visited the Bureau of Land Management's state offices in Colorado and Idaho and field offices in Colorado and New Mexico; the regional offices of the National Park Service and the Fish and Wildlife Service in Denver, Colorado; and Yosemite National Park in California. In addition, we interviewed and gathered documentation from the State Foresters of California, Colorado, Texas, and New Mexico as well as from representatives of the Western Governor's Association, the Society of American Foresters, the National Interagency Fire Center, the Wilderness Society, and the Pinchot Institute. We also reviewed

⁵ Protecting People and Sustaining Resources in Fire-Adapted Ecosystems: A Cohesive Strategy, The Forest Service Management Response to the General Accounting Office Report GAO/RCED-99-65 (Oct 13, 2000).

⁶ Integrating Fire and Natural Resource Management – A Cohesive Strategy For Protecting People by Restoring Land Health, The Department of the Interior (June 2001).

reports by the Congressional Research Service, the National Fire Protection Association, the Forest Trust, the Southwest Forest Alliance, the Defenders of Wildlife, and the Taxpayers for Common Sense. In addition, we attended conferences on wildland fire and hazardous fuels reduction in Boise, Idaho and Conifer, Colorado. Finally, we briefed and were briefed by the panel within the National Academy of Public Administration that prepared the October 2001 draft report on implementation of the Federal Wildland Fire Management Policy and the National Fire Plan.

Appendix III: GAO Contacts and Staff Acknowledgments

GAO Contacts	Barry T. Hill (202) 512-3841 Chester F. Janik (202) 512-6508
Acknowledgments	In addition to those named above, Ronald Belak; Charles Cotton, Alan Dominicci; Richard Johnson; James Jones, Jr.; Chester Joy; and Maria Vargas made key contributions to this report.

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