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# WILDLAND FIRE SUPPRESSION

## Better Guidance Needed to Clarify Sharing of Costs between Federal and Nonfederal Entities

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Natural Resources and Environment





Highlights of [GAO-06-896T](#), a testimony before the Subcommittee on Public Lands and Forests, Committee on Energy and Natural Resources, U.S. Senate

## Why GAO Did This Study

Wildland fires can burn or threaten both federal and nonfederal lands and resources, including homes in or near wildlands, an area commonly called the wildland-urban interface. Agreements between federal and nonfederal firefighting entities provide the framework for working together and sharing the costs of fire suppression efforts. GAO was asked to (1) review how federal and nonfederal entities share the costs of suppressing fires that burn or threaten both of their lands and resources and (2) identify any concerns that these entities may have with the existing cost-sharing framework. This testimony is based on GAO's May 2006 report *Wildland Fire Suppression: Lack of Clear Guidance Raises Concerns about Cost Sharing between Federal and Nonfederal Entities* (GAO-06-570).

## What GAO Recommends

In its report, GAO recommended that the Secretaries of Agriculture and the Interior, working with relevant state entities, provide more specific guidance on when to use particular cost-sharing methods and clarify the financial responsibilities for fires that burn or threaten to burn across multiple jurisdictions. The Forest Service and Interior generally agreed with the recommendations but the National Association of State Foresters disagreed, stating that the recommendations would not provide the flexibility needed to address the variability in local circumstances and state laws.

[www.gao.gov/cgi-bin/getrpt?GAO-06-896T](http://www.gao.gov/cgi-bin/getrpt?GAO-06-896T).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Robert A. Robinson at (202) 512-3841 or [robinsonr@gao.gov](mailto:robinsonr@gao.gov).

# WILDLAND FIRE SUPPRESSION

## Better Guidance Needed to Clarify Sharing of Costs between Federal and Nonfederal Entities

### What GAO Found

Federal and nonfederal entities used a variety of methods to share the costs of fighting wildland fires affecting both of their lands and resources. Cooperative agreements between federal and nonfederal firefighting entities—which are developed and agreed to by the entities involved—provide the framework for cost sharing and typically list several cost-sharing methods available to the entities. The agreements GAO reviewed, however, often lacked clear guidance for federal and nonfederal officials to use in deciding which method to apply to a specific fire. As a result, cost-sharing methods were applied inconsistently within and among states, even for fires with similar characteristics. For example, GAO found that in one state, the costs for suppressing a large fire that threatened homes were shared solely according to the proportion of acres burned within each entity's area of fire protection responsibility, a method that traditionally has been used. Yet, costs for a similar fire within the same state were shared differently. For this fire, the state agreed to pay for certain aircraft and fire engines used to protect the wildland-urban interface, while the remaining costs were shared on the basis of acres burned. In contrast to the two methods used in this state, officials in another state used yet a different cost-sharing method for two similar large fires that threatened homes, apportioning costs each day for personnel, aircraft, and equipment deployed on particular lands, such as the wildland-urban interface. The type of cost-sharing method ultimately used is important because it can have significant financial consequences for the entities involved, potentially amounting to millions of dollars.

Both federal and nonfederal agency officials raised a number of concerns about the current cost-sharing framework. First, some federal officials were concerned that because guidance is unclear about which cost-sharing methods are most appropriate in particular circumstances, it can be difficult to reach agreement with nonfederal officials on a method that all parties believe distributes suppression costs equitably. Second, some nonfederal officials expressed concerns that the emergence of alternative cost-sharing methods is causing nonfederal entities to bear a greater share of fire suppression costs than in the past. In addition, both federal and nonfederal officials believed that the inconsistent application of these cost-sharing methods has led to inequities among states in the proportion of costs borne by federal and nonfederal entities. Finally, some federal officials also expressed concern that the current framework for sharing costs insulates state and local governments from the increasing costs of protecting the wildland-urban interface. Therefore, nonfederal entities may have a reduced incentive to take steps that could help mitigate fire risks, such as requiring homeowners to use fire-resistant materials and landscaping. On the basis of a review of previous federal reports and interviews with federal and nonfederal officials, GAO believes that these concerns may reflect a more fundamental issue—that federal and nonfederal entities have not clearly defined their basic financial responsibilities for wildland fire suppression, particularly those for protecting the wildland-urban interface.

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Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss how federal and nonfederal entities share the costs of suppressing wildland fires that burn or threaten both federal and nonfederal lands and resources. As you know, fighting wildland fires—which can burn across federal, state, and local jurisdictions—requires significant investments of firefighting personnel, aircraft, equipment, and supplies, resulting in substantial and increasing fire suppression expenditures. Since 2000, federal suppression expenditures alone have averaged more than \$1 billion annually. Firefighting efforts are mobilized through an interagency incident management system, which depends on the close cooperation and coordination of federal, state, tribal, and local fire protection entities. At the federal level, five principal agencies are involved in firefighting efforts—the Forest Service within the Department of Agriculture and the Bureau of Indian Affairs, Bureau of Land Management, Fish and Wildlife Service, and National Park Service within the Department of the Interior. Federal and nonfederal firefighting entities share their personnel, equipment, and supplies and work together to fight fires, regardless of which entity has jurisdiction over the burning lands. Agreements between cooperating entities, commonly referred to as master agreements, govern these cooperative fire protection efforts and include general provisions for sharing firefighting costs.

My testimony today summarizes the findings of our report<sup>1</sup> released on June 13, 2006, which discusses (1) how federal and nonfederal entities share the costs of suppressing wildland fires that burn or threaten both of their lands and resources and (2) concerns federal and nonfederal entities have with the existing cost-sharing framework. To address these objectives, we reviewed applicable federal statutes, policies, and procedures; and federal and nonfederal studies related to wildland fire suppression costs. We reviewed master agreements between federal and nonfederal entities governing cooperative fire protection in 12 western states that frequently experience wildland fires.<sup>2</sup> We also reviewed fire

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<sup>1</sup> GAO, *Wildland Fire Suppression: Lack of Clear Guidance Raises Concerns about Cost Sharing between Federal and Nonfederal Entities*, [GAO-06-570](#) (Washington, D.C.: May 30, 2006).

<sup>2</sup> The 12 states selected were Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. Although wildland fires can affect all states, we selected these western states because they have substantial federal lands and often experience wildland fires.

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records and interviewed federal and nonfederal firefighting officials to discuss methods chosen to share suppression costs for eight recent fires—two each in Arizona, California, Colorado, and Utah—which burned or threatened both federal and nonfederal lands and resources.<sup>3</sup>

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## Summary

Federal and nonfederal entities used a variety of methods to share the costs of fighting wildland fires affecting both of their lands and resources, but they applied these varied methods inconsistently to fires with similar characteristics. Master agreements between firefighting entities provide the framework for cost sharing and, typically, list several cost-sharing methods available to the entities. The agreements we reviewed, however, often lacked clear guidance for federal and nonfederal officials to use in deciding which method to apply to a specific fire. As a result, cost-sharing methods were applied inconsistently within and among states, even for fires with similar characteristics. For example

- In one state, the costs for suppressing a large fire that threatened homes were shared solely according to the proportion of acres burned within each entity's area of fire protection responsibility.
- In the same state, costs for a similar fire were shared differently—the state paid for certain aircraft and fire engines used to protect homes, while the remaining costs were shared on the basis of acres burned.
- In another state, officials used yet a different cost-sharing method for two similar large fires that threatened homes, apportioning costs each day for personnel, aircraft, and equipment deployed on particular lands, such as the wildland-urban interface, an area where homes and other structures are located in or near wildlands.

The type of cost-sharing method ultimately used is important because it can have significant financial consequences for the entities involved, potentially amounting to millions of dollars.

Federal and nonfederal agency officials we interviewed raised a number of concerns about the current cost-sharing framework.

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<sup>3</sup>The 12 master agreements reviewed, 4 states visited, and two wildland fires reviewed within each visited state are all nonprobability samples. Therefore, the results from these samples cannot be used to make inferences about all master agreements, states, or wildland fires.

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- First, some federal officials said that because master agreements and other policies do not provide clear guidance about which cost-sharing methods to use, it has sometimes been difficult to obtain a cost-sharing agreement that they believe shares suppression costs equitably.
  - Second, nonfederal officials were concerned that the emergence of alternative cost-sharing methods has caused nonfederal entities to bear a greater share of fire suppression costs than in the past. In addition, these officials, as well as some federal officials, were concerned that the federal government was treating nonfederal entities in different states differently, thereby creating inequities.
  - Finally, some federal officials expressed concern that the current framework for sharing costs insulates state and local governments from the cost of protecting the wildland-urban interface, thereby reducing their incentive to take steps that could help mitigate fire risks and reduce suppression costs in the wildland-urban interface.

On the basis of our review of previous federal reports and interviews with federal and nonfederal officials, we believe these concerns may reflect a more fundamental issue—that federal and nonfederal entities have not clearly defined their financial responsibilities for wildland fire suppression, particularly for the wildland-urban interface.

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## Background

Although wildland fires triggered by lightning are a natural, inevitable, and in many cases a necessary ecological process, past federal fire suppression policies have led to an accumulation of fuels and contributed to larger and more severe wildland fires. In recent years, both the number of acres burned by wildland fires and the costs to suppress fires have been increasing. From 1995 through 1999, wildland fires burned an average of 4.1 million acres each year; from 2000 through 2004, the fires burned an average of 6.1 million acres each year—an increase of almost 50 percent. During the same periods, the costs incurred by federal firefighting entities to suppress wildland fires more than doubled, from an average of \$500 million annually to about \$1.3 billion annually.<sup>4</sup> Although efforts to fight these larger, more severe fires have accounted for much of the increase in suppression costs, the continuing development of homes and communities in areas at risk from wildland fires and the efforts to protect

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<sup>4</sup>These dollars have been adjusted for inflation using the gross domestic product price index, with fiscal year 2005 as the base year.

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these structures also contribute to the increasing costs. Forest Service and university researchers estimate that about 44 million homes in the lower 48 states are located in the wildland-urban interface. When fire threatens the wildland-urban interface, firefighting entities often need to use substantial resources—including firefighters, fire engines, and aircraft to drop retardant—to fight the fire and protect homes.

As wildland fire suppression costs have continued to rise, increasing attention has focused on how suppression costs for multijurisdictional fires are shared. To share suppression costs for a specific fire, local representatives of federal and nonfederal firefighting entities responsible for protecting lands and resources affected by the fire—guided by the terms of the master agreement—decide which costs will be shared and for what period. They document their decisions in a cost-sharing agreement for that fire. According to federal officials, cooperating entities traditionally shared suppression costs on the basis of the proportion of acres burned in each entity’s protection area because the method was relatively easy to apply and works well when the lands affected by a wildland fire are similar. Officials said that the use of alternative cost-sharing methods has been increasing in recent years.

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## Unclear Guidance and Inconsistent Application of Cost-Sharing Methods Can Have Significant Financial Consequences for Entities Involved

Federal and nonfederal entities included in our review used a variety of methods to share the costs of fighting fires that burned or threatened both federal and nonfederal lands and resources. Although master agreements between federal and nonfederal entities typically listed several cost-sharing methods, the agreements often lacked clear guidance for officials to follow in deciding which cost-sharing method to apply to a specific fire. Consequently, for eight fires we reviewed in four states, we found varied cost-sharing methods used and an inconsistent application of these methods within and among states, although the fires had similar characteristics. The type of cost-sharing method chosen is important because it can have significant financial consequences for the federal and nonfederal entities involved.

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## Master Agreements Provided Cost-Sharing Framework, but Those We Reviewed Lacked Clear Guidance

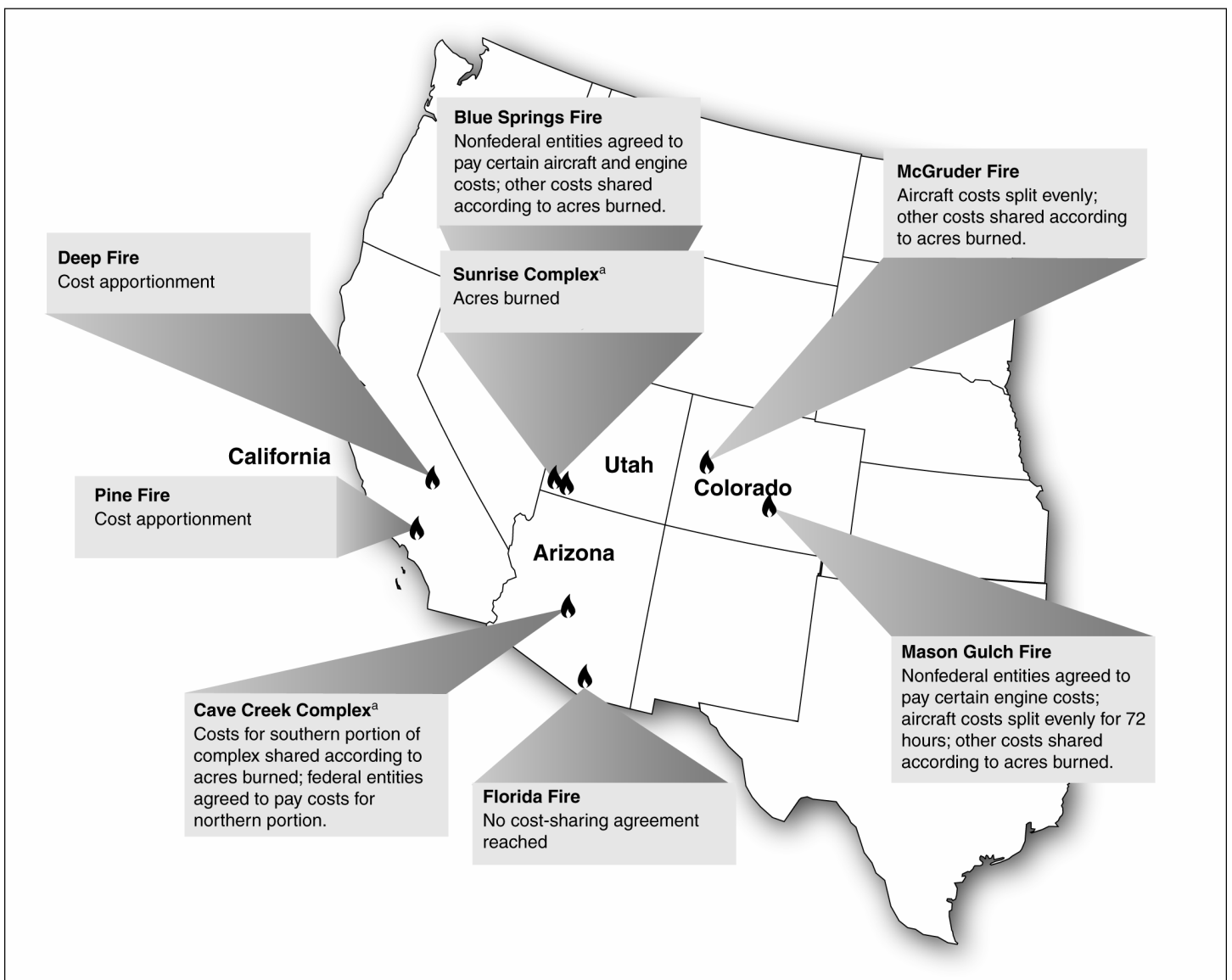
Master agreements provide the framework for federal and nonfederal entities to work together and share the costs of fighting wildland fires. The master agreements we reviewed for 12 western states all directed federal and nonfederal entities to develop a separate agreement, documenting how costs were to be shared for each fire that burned—or, in some cases, threatened to burn—across multiple jurisdictions. The master agreements varied in the cost-sharing methods specified:

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- The master agreement for 1 state (Idaho) did not identify any specific cost-sharing method to use.
  - The master agreements for 3 states (Alaska, Arizona, New Mexico) listed the acres-burned method as the primary or only method to be used. Although two of these agreements allowed the use of alternative cost-sharing methods, they did not explicitly state under what circumstances an alternative method would be appropriate.
  - The master agreements for 8 remaining states listed multiple, alternative cost-sharing methods but did not provide clear guidance on when each method should be used.

## Cost-Sharing Methods Were Inconsistently Applied for the Eight Fires We Reviewed

Federal and nonfederal entities used varied cost-sharing methods for the eight fires we reviewed, although the fires had similar characteristics. As shown in figure 1, the cost-sharing methods used sometimes varied within a state or from state to state.

**Figure 1: The Varied Cost-Sharing Methods Used for Eight Similar Fires We Reviewed**



Sources: GAO representation of data provided by the Forest Service and the Department of the Interior; MapArt (map).

<sup>a</sup>A complex consists of two or more individual fires located in the same general area and managed by a single incident commander.



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The costs for the two fires that we reviewed in Utah were shared using two different methods, although both fires had similar characteristics.

- For the Blue Springs Fire, federal and nonfederal officials agreed that aircraft and engine costs of protecting an area in the wildland-urban interface during a 2-day period would be assigned to the state and the remaining costs would be shared on the basis of acres burned. Federal and state officials explained that, because the Blue Springs Fire qualified for assistance from the Federal Emergency Management Agency (FEMA), state officials agreed to bear a larger portion of the total fire suppression costs.<sup>5</sup>
- For the Sunrise Complex of fires, in contrast, state officials were reluctant to share costs in the same manner. Although these fires also threatened the wildland-urban interface, they did not meet the eligibility requirements for FEMA reimbursement of nonfederal costs. Consequently, federal and nonfederal officials agreed to share costs for the Sunrise Complex on the basis of acres burned.

The costs for the two fires we reviewed in Arizona were also treated differently from each other.

- For the Cave Creek Complex of fires, federal and state officials agreed to share suppression costs using an acres-burned method for the southern portion of the complex, which encompassed federal, state, and city lands and required substantial efforts to protect the wildland-urban interface. The federal government paid the full costs for the northern portion of the fire.
- For the Florida Fire, federal and nonfederal officials were unable to reach an agreement on how to share costs. Officials from the affected national forest proposed a cost-sharing agreement, whereby the state would pay the costs of firefighting personnel, equipment, and aircraft used to protect

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<sup>5</sup>Under its Fire Management Assistance Grant Program, FEMA provides financial assistance to nonfederal entities for the mitigation, management, and control of any fire on public or private forest land or grassland that would constitute a major disaster. Under this program, nonfederal entities can be reimbursed for 75 percent of the allowable fire suppression costs. FEMA evaluates the threat posed by a fire or fire complex according to the following criteria: (1) threat to lives and improved property, including threats to critical facilities/infrastructure, and critical watershed areas; (2) availability of state and local firefighting resources; (3) high fire danger conditions, as indicated by nationally accepted indexes such as the national fire danger ratings system; and (4) potential major economic impact.

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the wildland-urban interface, and all other fire suppression costs would be paid by the federal government. The state official, however, did not agree with this proposal. He believed that the Forest Service, not the state, was responsible for protecting areas of the wildland-urban interface threatened by the Florida Fire and that he was not authorized to agree to the terms of the proposed agreement.<sup>6</sup>

Methods used to share suppression costs for fires with similar characteristics also varied among states. For example, costs for the fires we reviewed in California and Colorado were shared using methods different from those used for similar fires we reviewed in Arizona and Utah.

- In California, federal and nonfederal officials agreed to share the costs of two fires using the cost-apportionment method—that is, costs were apportioned on the basis of where firefighting personnel and equipment were deployed. Officials said that they had often used this method since the mid-1980s because they believed that the benefit it provides in more equitable cost sharing among affected firefighting entities outweighs the additional time required to apportion the costs.
- In Colorado, federal and nonfederal officials agreed to share suppression costs for both of the fires we reviewed in that state using guidance they had developed and officially adopted in 2005, called “fire cost share principles.” Under these principles, aviation costs for fires burning in the wildland-urban interface are shared equally for 72 hours, and other fire suppression costs, such as firefighting personnel and equipment, are shared on the basis of acres burned.

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### The Cost-Sharing Method Used Can Lead to Significantly Different Financial Outcomes

Having clear guidance as to when particular cost-sharing methods should be used is important because the type of method ultimately agreed upon for any particular fire can have significant financial consequences for the firefighting entities involved. To illustrate the effect of the method chosen, we compared the distribution of federal and nonfederal costs for the five fires we reviewed in which the actual cost-sharing method used was not acres burned with what the distribution would have been if the method

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<sup>6</sup>Specifically, the state official said that under Arizona law, the state had no responsibility to protect the private lands and resources in the wildland-urban interface threatened by the Florida Fire because the fire did not threaten state lands, and the private properties that the fire threatened were not covered by cooperative fire agreements with the state.

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used had been acres burned. We found that the distribution of costs between federal and nonfederal entities differed, sometimes substantially, depending on the cost-sharing method used. The largest differences occurred in California, which used the cost apportionment method.

- For the Deep Fire, using the cost-apportionment method, federal entities paid \$6.2 million, and nonfederal entities paid \$2.2 million. Had the costs been shared on the basis of acres burned, federal entities would have paid an additional \$1.7 million, and nonfederal entities would have paid that much less because most of the acres burned were on federal land. According to federal and state officials, the nonfederal entities bore a larger share of the cost than they would have under an acres-burned method because of the efforts to protect nonfederal lands and resources.
- For the Pine Fire, using cost apportionment, federal entities paid \$5.2 million, and nonfederal entities paid \$8.1 million. Had an acres-burned method been used, federal entities would have paid about \$2 million less, and nonfederal entities would have paid that much more. According to a federal official who worked on apportioning costs for that fire, the higher costs that the federal entities paid under cost apportionment were largely due to extensive firefighting efforts on federal land to ensure that the fire was extinguished.

In Colorado and Utah, the differences in federal and state entities' shares between the methods used and the acres-burned method were less pronounced, likely because the cost-sharing methods used still relied heavily on acres burned. In each case, federal entities' shares would have been more and nonfederal shares less had an acres-burned method been used, due to the efforts to protect the wildland-urban interface. For example, the federal share of costs for the Blue Springs Fire in Utah would have been about \$400,000 more and the nonfederal share that much less if an acres-burned method had been used for the whole fire. In Colorado, we estimated that the federal share of costs for the Mason Gulch Fire would have been about \$200,000 more and the nonfederal share that much less under an acres-burned method.

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## Current Cost-Sharing Framework Raises Several Concerns

Federal and nonfederal agency officials we interviewed raised a number of concerns about the current cost-sharing framework. First, some federal officials said that because master agreements and other policies do not provide clear guidance about which cost-sharing methods to use, it has sometimes been difficult to obtain a cost-sharing agreement that they believe shares suppression costs equitably. Second, nonfederal officials

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were concerned that the emergence of alternative cost-sharing methods has caused nonfederal entities to bear a greater share of fire suppression costs than in the past. Finally, some federal officials expressed concern that the current framework for sharing costs insulates state and local governments from the cost of protecting the wildland-urban interface, thereby reducing their incentive to take steps that could help mitigate fire risks and reduce suppression costs in the wildland-urban interface. We believe these concerns may reflect a more fundamental issue—that is, that federal and nonfederal entities have not clearly defined their financial responsibilities for wildland fire suppression, particularly for the wildland-urban interface.

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### Lack of Clear Guidance Can Lead to Difficulties in Sharing Costs

Some federal officials said that the lack of clear guidance can make it difficult to agree to use a cost-sharing method that they believe equitably distributes suppression costs between federal and nonfederal entities, particularly for fires that threaten the wildland-urban interface. As discussed, different cost-sharing methods were used for the two fires we reviewed in Utah, even though both fires required substantial suppression efforts to protect the wildland-urban interface. A federal official said that because of the state officials' unwillingness to use a method other than acres burned on one of the fires and because of the lack of clear guidance about which cost-sharing method should be used, he agreed to use an acres-burned method and did not seek a cost-sharing agreement that would have assigned more of the costs to the nonfederal entities. Some federal officials in Arizona expressed similar views, saying that the lack of clear guidance on sharing costs can make it difficult to reach agreement with nonfederal officials. For example, federal and state officials in Arizona did not agree on whether to share costs for one fire we reviewed in that state.

Officials from the Forest Service's and the Department of the Interior's national offices agreed that interagency policies for cost sharing could be clarified to indicate under what circumstances particular cost-sharing methods are most appropriate. They said that the acres-burned method, for example, is likely not the most equitable method to share costs in cases where fires threaten the wildland-urban interface. Officials noted that the National Fire and Aviation Executive Board—made up of the fire directors from the five federal land management agencies and a representative from the National Association of State Foresters—was developing a template for both master and cost-sharing agreements. As of May 2006, this template had not been finalized, but our review of a draft version indicated

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that the template might not provide additional clarity about when each cost-sharing method should be used.

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### Nonfederal Officials Were Concerned about Increased Costs and Equity among States

While federal officials expressed the need for further guidance on how to share costs, nonfederal officials were concerned that the emergence of alternative cost-sharing methods was leading state and local entities to bear a greater share of suppression costs than in the past, and they questioned whether such an increase was appropriate. Nonfederal officials also said that wildland fire suppression costs already posed budgetary challenges for state and local entities and that using alternative cost-sharing methods more often could exacerbate the situation. State officials said that if a state's suppression costs in a given year exceed the funds budgeted, they must seek additional state funds, which can be difficult. Moreover, they said, in many states, protecting structures is primarily a local responsibility, and many local entities are unable to pay the costs of fighting a large fire that threatens the wildland-urban interface.<sup>7</sup> Although clarifying guidance about which cost-sharing methods are most appropriate for particular circumstances could cause nonfederal entities to bear more wildland fire suppression costs, over the long term, such clarification would also allow each entity to better determine its budgetary needs and take steps to meet them.

In addition to their concerns about increased costs, nonfederal as well as federal officials were concerned that the federal government was treating nonfederal entities in different states differently, thereby creating inequities. Federal and nonfederal officials said that because some states use particular cost-sharing methods more often than other states, the proportion of costs borne by federal and nonfederal entities likely varies from state to state, resulting in nonfederal entities' paying a higher proportion of costs in some states and a lower proportion in other states. Clarifying which cost-sharing methods should be used in particular situations could increase nonfederal officials' assurance that the federal government is treating them equitably relative to other states.

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<sup>7</sup>Some states have provisions whereby wildland fires exceeding the logistic and financial capabilities of local entities can be managed and paid for by the state, but officials said that state funds to do so are also limited.

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## Cost-Sharing Framework May Reduce Incentives to Mitigate Fire Risks in the Wildland-Urban Interface

Federal officials said that the current cost-sharing framework insulates state and local governments from the cost of protecting the wildland-urban interface. As we have previously reported, a variety of protective measures are available to help protect structures from wildland fire including (1) reducing vegetation and flammable objects within an area of 30 to 100 feet around a structure and (2) using fire-resistant roofing materials and covering attic vents with mesh screens.<sup>8</sup> However, some homeowners and homebuilders resist using these protective measures because they are concerned about aesthetics, time, or cost. As a result, federal and nonfederal officials said, it can be politically difficult for state and local governments to adopt—and enforce—laws requiring such measures, and many at-risk areas have not done so. The states and communities we visited exhibited various degrees of progress in adopting laws requiring protective measures. For example, California requires homeowners in the wildland-urban interface to maintain 100 feet of defensible space and, in areas at particularly high risk from wildland fires, also requires new structures to be constructed with fire-resistant roofing materials and vents. The other states we visited do not have such statewide requirements, but they are taking a variety of steps to require or encourage protective measures. For example, Utah passed a law in 2004 requiring its counties to adopt standards for landscaping and building materials if they want to be eligible to receive state funds to assist with fire suppression costs. Other counties had efforts underway to educate homeowners about measures they could use to reduce their risk without requiring that such measures be used.

Federal officials expressed concern—and some nonfederal officials acknowledged—that the use of cost-sharing methods that assign more costs to federal entities, and the availability of federal emergency assistance, insulate state and local governments from the cost of providing wildland fire protection. These federal officials pointed out that wildland fires threatening structures often require added suppression efforts. Under some cost-sharing methods, such as acres burned, federal entities often end up paying a large proportion of the costs for these efforts. Some federal and nonfederal officials also noted that the availability of FEMA assistance to nonfederal entities—which can amount to 75 percent of allowable fire suppression costs for eligible fires—further insulates state and local governments from the cost of protecting the wildland-urban

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<sup>8</sup>GAO, *Technology Assessment: Protecting Structures and Improving Communications during Wildland Fires*, GAO-05-380 (Washington, D.C.: Apr. 26, 2005).

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interface. Of the eight fires included in our review, nonfederal officials were seeking reimbursement for the allowable costs of the five fires that FEMA determined met eligibility requirements. Federal officials suggested that to the extent that state and local governments are insulated from the cost of protecting the wildland-urban interface, these governments may have a reduced incentive to adopt laws requiring homeowners and homebuilders to use protective measures that could help mitigate fire risks. Some officials said that by requiring homeowners and homebuilders to take such measures, more of the cost of protecting the wildland-urban interface would then be borne by those who chose to live there.

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### Officials' Concerns May Reflect Ambiguity over Financial Responsibilities

On the basis of our review of previous federal reports and interviews with federal and nonfederal officials, we believe that the concerns we identified may reflect a more fundamental issue—that federal and nonfederal firefighting entities have not clearly defined their fundamental financial responsibilities for wildland fire suppression, particularly those for protecting the wildland-urban interface. Federal officials said that the continuing expansion of the wildland-urban interface and rising fire suppression costs for protecting these areas have increased the importance of resolving these issues. Federal wildland fire management policy states that protecting structures is the responsibility of state, tribal, and local entities; but the policy also says that, under a formal fire protection agreement specifying the financial responsibilities of each entity, federal agencies can assist nonfederal entities in protecting the exterior of structures threatened by wildland fire. Federal and nonfederal officials agreed that federal agencies can assist with such actions, but they did not agree on which entities are responsible for bearing the costs of these actions. Federal officials told us that the purpose of this policy is to allow federal agencies to use their personnel and equipment to help protect homes but not to bear the financial responsibility of providing that protection. Nonfederal officials, however, said that these actions are intended to keep a wildland fire from reaching structures, and financial responsibility should therefore be shared between both federal and nonfederal entities.

Further, the presence of structures adjacent to federal lands can substantially alter fire suppression strategies and raise costs. A previous federal report and federal officials have questioned which entities are financially responsible for suppression actions taken on federal lands but intended primarily or exclusively to protect adjacent wildland-urban interface. Fire managers typically use existing roads and geographic features, such as rivers and ridgelines, as firebreaks to help contain

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wildland fires. If, however, homes and other structures are located between a fire and such natural firebreaks, firefighters may have to construct other firebreaks and rely more than they otherwise would on aircraft to drop fire retardant to protect the structures, thereby increasing suppression costs. Nonfederal officials in several states, however, questioned the appropriateness of assigning to nonfederal entities the costs for suppression actions taken on federal lands. These officials, as well as officials from the National Association of State Foresters, said that accumulated fuels on federal lands is resulting in more severe wildland fires and contributing to the increased cost of fire suppression. They also said that federal agencies are responsible for keeping wildland fires from burning off federal land and should, therefore, bear the costs of doing so. Federal officials in the states we visited recognized this responsibility, but some also said that with the growing awareness that wildland fires are inevitable in many parts of the country, policy should recognize that wildland fires will occur and are likely to burn across jurisdictional boundaries. In their view, those who own property in areas at risk of wildland fires share a portion of the financial responsibility for protecting it. Previous federal agency reports also have recognized this issue and have called for clarifying financial responsibility for such actions.

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## Conclusions

Wildland fires are inevitable and will continue to affect both federal and nonfederal lands and resources. Federal, state, and local firefighting entities have taken great strides to develop a cooperative fire protection system so that these entities can effectively work together to respond to these fires. Efforts are now needed to address how to best share the costs of these cooperative fire protection efforts when the fires burn or threaten multiple jurisdictions, particularly when suppression efforts may focus more heavily on one entity's lands and resources. The need for clear guidance on when to use a particular cost-sharing method is becoming more acute as the wildland-urban interface continues to grow and wildland fire suppression costs continue to increase. Before such guidance can be developed, however, federal and nonfederal entities must agree on which entity is responsible for the costs of protecting areas where federal and nonfederal lands and resources are adjacent or intermingled, particularly in the wildland-urban interface. Without explicit delineation of financial responsibilities, federal and nonfederal entities' concerns about how these costs are shared are likely to continue.

Thus, to strengthen the framework for sharing wildland fire suppression costs, we recommended that the Secretaries of Agriculture and the Interior, working in conjunction with relevant state entities, provide more



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specific guidance as to when particular cost-sharing methods should be used and clarify the financial responsibilities for suppressing fires that burn, or threaten to burn, across multiple jurisdictions.

In responding to our report, the Forest Service and the Department of the Interior generally agreed with the findings and recommendations. The National Association of State Foresters did not agree, stating that developing national guidance would not provide the flexibility needed to address the variability in local circumstances and state laws. Although we agree that a certain amount of flexibility is needed, without more explicit guidance to assist local federal and nonfederal officials responsible for developing cost-sharing agreements for individual fires, the inconsistencies in how suppression costs are shared within and among states are likely to continue, along with concerns about perceived inequities.

Mr. Chairman, this concludes my prepared statement. I would be pleased to answer any questions that you or other Members of the Subcommittee may have at this time.

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## GAO Contact and Staff Acknowledgments

For further information about this testimony, please contact me at (202) 512-3841 or [robinsonr@gao.gov](mailto:robinsonr@gao.gov), or Robin M. Nazzaro at (202) 512-3841 or [nazzaror@gao.gov](mailto:nazzaror@gao.gov). David P. Bixler, Assistant Director; Jonathan Dent; Janet Frisch; and Richard Johnson made key contributions to this statement.

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