Federal Funding of Wildland Fire Management Programs: What Will One Billion Dollars Buy?¹

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Abstract
The wildland fire management program has maintained strong support from the public and Congress. This program costs the public about 1 billion dollars per year; thus, it receives much scrutiny by congressional committees. All of the Federal agencies with wildland fire management programs have a common budget development process. Funding received from Congress for fire management encompasses both the plannable and predictable workload and the unpredictable and unplannable workload associated with suppression and emergency fire rehabilitation. It also includes funds for the use of prescribed fire and mechanical fuel treatments to reduce the occurrence of wildland fires and restore fire to ecosystems.

The Federal budget for wildland fire management programs is about 1 billion dollars per year. Because this program functions in an emergency atmosphere and involves thousands of people, impacts all sectors of society, and involves 1 billion dollars, it has a high risk factor for waste, fraud, and abuse. As a result, the executive and legislative branches of the Federal government-through their committees, offices, and oversight organizations, such as the General Accounting Office (GAO) and the Office of the Inspector General (OIG)--invest a lot of time looking at the plans, budgets, and expenditures of Federal agencies with wildland fire protection responsibilities. Although the primary focus has been on expenditures, the scrutiny by the appropriations committees on the merits of the program, its components, and fire management plans has become intensive.

The wildland fire program has maintained strong support from the public and Congress. The fire budget and personnel ceilings have corresponded to inflation; and although fire management has never received funding to fully implement what the plans identify as the most cost efficient and effective organization, the Federal fire programs have fared better than the agencies' resource management programs. Much of this support is a result of the public's fascination and fear of fire and the political responsiveness to the constituents' concerns regarding the protection of life and property. To a lesser extent, the quality of our plans, workload analysis, and the ability to use this data to make a convincing budget request has resulted in congressional support for the program.

Budget Development Process
All five Federal agencies with wildland fire management programs (the USDI's Bureau of Land Management [BLM], Bureau of Indian Affairs [BIA], Fish and Wildlife Service [FWS], National Park Service [NPS], and the USDA Forest Service [USFS]) have a common budget development process. The fire management plans (FMPs) are the basis of the budget development process. Through the workload analysis used in fire planning, the Federal agencies establish a desired funding level. The desired funding level represents the cost of the most efficient program or organization meeting the fire management objectives. The figure for the desired funding level becomes the basis of negotiations that establishes how much the President will request from Congress for wildland fire management. The process follows these steps:

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The Departments usually have bottom line budget numbers they are working with and by the time the agencies even initiate the formal budget estimate process, something significantly less than the most efficient level (MEL) becomes the agencies' "revised" starting point.

The Departments then provide their budget estimate to the Office of Management and Budget (OMB). OMB has the role of ensuring that all of the funding needs of the agencies and programs of the government do not exceed the President's target. After a process of "passbacks" and "appeals" between the Departments and OMB, a dollar ceiling for the Federal wildland fire management program is set. Then the executive branch of the government puts together the President's budget justification and sends it to Congress.

The House and Senate Appropriation Committees review the justification and have formal hearings and informal briefings with the Departments and the agencies. This results in a series of questions and answers (commonly referred to as Q&A's) and eventually the House and the Senate each develop their budget or "mark." If the House and the Senate do not initially agree, they conference, and a Committee resolves the differences. Congress votes on the budget bill, and once passed, it is sent to the President.

Once the President signs the appropriation bill, it becomes an act and the law. The agencies then proceed with the allocation process and budget execution (implementation of the budget).

All five Federal agencies' wildland fire management funding is received under the title of "Wildland Fire Management Appropriation." The appropriation comes through the Department of the Interior (USDI) as Title I for the USDI agencies and Title II for the USFS. The Wildland Fire Management Appropriation is divided into two activities:

- Wildland Fire Preparedness
- Wildland Fire Operations

The Wildland Fire Preparedness activity focuses on the plannable and predictable workload and is generated by FMP's. The Wildland Fire Operations activity focuses on the relatively unpredictable and unplannable workload. The amount needed for suppression and rehabilitation is generated by the 10-year running average cost of actual suppression and rehabilitation activities, combined with a cost target (generated from FMP's) for fuels management operations.

The suppression subactivity within Wildland Fire Operations provides the costs of managing wildland fires. It is also the source of Severity Funds. Fire Severity Funds are used to improve initial attack response capabilities when abnormal fire conditions occur resulting in fire seasons starting earlier than normal, lasting longer than normal, or exceeding average high fire danger ratings for prolonged periods. Having access to Severity Funds is critical since the analysis that identified the most efficient organization and its costs was based on an average annual workload; not a worse case scenario.

The Hazardous Fuel Reduction Operations subactivity created by Congress in fiscal year '98 provides a more flexible funding authority in support of aggressive use of fire and mechanical fuel treatments with the goal of reducing the occurrence of uncharacteristically severe wildland fires and restoring fire to ecosystems.

### Bureau of Land Management Fire Program

The BLM manages about 264 million acres of land, which is about one-eighth the size of the U.S. It also manages another 300 million acres of subsurface mineral resources. Although the Bureau has the full range of wildland fire management activities on its 264 million acres, it also has protection responsibility on an
additional 123 million acres for a total of 388 million acres. The Bureau generates about $1.5 billion in annual revenues from its multiple uses of the land. The Bureau's workforce includes about 10,000 permanent, temporary, and seasonal employees; this categorizes the Bureau as a medium to small agency.

The operations of the BLM's fire program reflect the dominance of certain fuel types and land ownership patterns. The most common vegetation types are the grasslands, brushlands and woodlands. Although the Bureau has some of the most productive forest lands in the world, which are found in western Oregon, they represent a small percentage of the Bureau's lands. The Bureau also has responsibility for fire management for most of the nation's taiga and tundra. The Bureau's unenviable land ownership pattern is also a strong influencing factor on the choice of fire management strategies and tactics and even policies. Although the Bureau has numerous million acre parcels of land that are only infrequently broken with state and private holdings, there are also millions of acres of scattered ownership consisting of parcels as small as 40 acres to blocks of sections and townships. The rangelands and brushlands can be characterized as dry with infrequent sources of surface water.

As the western U.S. population grows and more people desire to live in rural settings adjoining Federal land knowing they won't be commercially developed, and with the prevalence of fine fuels characterized by extreme rates of spread, the BLM is faced with the ultimate wildland/urban fire interface problem.

Excluding Alaska, the Bureau's suppression workload is predominantly initial response and extended attack with infrequent long duration campaign fires. Whereas 20 years ago the Bureau scoffed and chided itself for retardant use on grass and brush fires, currently the entire concept of values threatened and political oversight has been reversed because of the wildland/urban interface issue and the loss of critical habitat to introduced annual grasses. The Bureau's suppression program focuses on heavy duty, rough terrain wildland fire engines, back fires and burnouts, and retardant aircraft, especially the Single Engine Air Tankers (SEATS). In Alaska the focus is on aviation, water delivery, and hand crews. Roads are limited in Alaska, traversing the land for any distance on foot can be incredibly slow, and water and mosquitoes are prevalent. Millions of acres in Alaska fall into the fire planning category of "limited suppression." Limited suppression exists where there are massive areas that do not present risk to life and property, and present no unacceptable environmental issues. The appropriate action for these fires is surveillance and letting fire play its natural role. Where isolated structures are threatened, specific protection is taken just around those structures. If the surveillance analysis indicates a village may be threatened, burnouts connecting lakes and rivers are a common suppression practice.

In other areas of Alaska where life, property, and commercial values are at risk, the fires are fought aggressively from start to finish. Although most of the fires in Alaska are natural-caused, as opposed to human-caused, smoke is appearing as a major determinant in future fire management policies and actions. The magnitude of number of acres that may be on fire at any one time and burning for several weeks does impact air quality. Although it may be natural and good fire management economics, it is not possible to suddenly put the fires out when commercial aviation is impacted and concerns are raised regarding worldwide smoke. When these events occur, social and non-fire economic values predominate and guide the process.

With the advent of a new source of funding specifically targeted to fuels management for both reduction of hazardous fuels and to restore fire to fire dependent ecosystems, the Bureau's accomplishments and plans to accomplish treatments have been dramatically revised. The Bureau's 10-year average of fuels treatments through 1997 (for non-commodity generated fuels such as logging slash) was a meager 60,000 acres per year. In 1998 the Bureau more than doubled its accomplishments by treating 200,000 acres. The plan for 1999 is to treat about 300,000 acres. We anticipate a leveling off in the growth of acres treated by the
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year 2001 or 2002 at about 500,000 per year. We have a documented example where repeated cyclical burns over a 15-year period reduced the need for two wildland engines. These engines were moved to new areas of high risk.

Because of the dominance of rangelands, brushlands, and woodlands, the primary treatment objective has been to restore fire to the ecosystem, as opposed to hazardous fuels reductions. When we divide the total of all of the 1998 expenditures made with the new fuels funding account by the actual treated acres, we find the average cost per acre was $35. The range of cost per treated acre varied from $1,000 in the wildland/urban interface of western Oregon to about $10 for most of the rangelands.