

**Testimony of James Caswell,  
Co-Chair, Strategic Issues Panel on Fire Suppression Costs  
and  
Director, Office of Species Conservation, State of Idaho**

**United States Senate  
Committee on Energy and Natural Resources**

**January 30, 2007**

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Thank you Chairman Bingaman and other distinguished members of this Committee for the opportunity to appear and present testimony for today's hearing on wildfire suppression costs. My name is Jim Caswell, I served with the U.S. Forest Service for 28 years and I am currently the Director of the Governor of Idaho's Office of Species Conservation. In addition to my duties for the State of Idaho, in 2004, I was asked by then-Governor Kempthorne to represent the Western Governors' Association as a co-chair of the Strategic Issues Panel on Fire Suppression Costs. The Wildland Fire Leadership Council or WFLC, led by the Departments of the Interior and Agriculture, chartered the Panel in early 2004 to "*explore specific strategic issues associated with large fire costs, including the relationship of fire to vegetation management and land and resource management plans.*"<sup>1</sup>

I appear before the Committee today in my role as Co-Chair of the Panel. In April 2005, I testified before the Public Lands and Forests Subcommittee of this Committee on the same topic. I am pleased to reiterate that testimony today and provide some perspective on cost control developments since that time. However, on the issue of to what extent the federal agencies have implemented the Panel's 2004 recommendations, this Committee should seek full information from the federal agencies on the exact extent of their actions since that time.

**The Strategic Issues Panel on Fire Suppression Costs**

The need for focusing on the costs of large fire is clear. Fire suppression expenditures are overwhelmingly centered on larger fires. "*From 1980 through 2002 small fires (less than 300 acres) managed by the Forest Service totaled 98.6 % of the fires reported but represented only 6.2% of the total suppression expenditures. Larger fires (greater than 300 acres) represented 1.4% of the fires reported and a whopping 93.8% of the suppression expenditures.*"<sup>2</sup> Those basic percentages remain the same today.

*"Unwillingness to take greater risks [in operational fire suppression decision-making], unwillingness to recognize that suppression techniques are sometimes futile, the 'free' nature of wildland fire suppression funding, and public and political expectations are all potential contributors to the underlying causes for the high cost of large fires."*<sup>3</sup>

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<sup>1</sup> Large Fire Suppression Costs: Strategies for Cost Management, A Report to the Wildland Fire Leadership Council From the Strategic Issues Panel on Fire Suppression Costs (August 2004).

<http://www.fireplan.gov/reports/2004/costmanagement.pdf>

<sup>2</sup> *Id.* at 6.

<sup>3</sup> *Id.*

The WFLC charter for the Panel explicitly identified five areas for examination:

1. Barriers and obstacles to cost containment;
2. Strategies for cost containment success;
3. Impediments to equitable sharing of suppression and cost apportionment among jurisdictions;
4. Criteria to measure cost containment success; and,
5. Relationships of fire management plans and resource management plans to suppression costs.

Fourteen individuals representing a broad spectrum of fire fighting interests, including the federal government, worked collaboratively over a four-month period and met multiple times face-to-face to develop the Panel's final report. The Panel

- examined the last five years' reports related to suppression costs;
- interviewed a wide variety of people and groups, including researchers, special interests, fire managers, and other government officials; and
- analyzed more than 300 past recommendations

to better understand the issues and to develop strategic actions that met the intent of the Panel's charter. The Panel's report was presented to the WFLC in July 2004.

While there have been many reports on this topic in the past that have led to efficiencies in managing the costs of large fires, those efforts have, at best, provided marginal cost reductions. The Panel's report, unlike these earlier efforts, seeks to substantively address the underlying causes of large fire suppression costs. It is this important distinction that WGA believes makes the Panel's report extremely valuable. Recognizing this, Western Governors commended the report to the Secretaries of the Interior and Agriculture soon after its completion.<sup>4</sup>

The strategic and interdependent recommendations set forth in the Panel's report are as follows:

- A. Increase the level of accountability and interest for large fire costs and their impacts by allocating suppression funds on a regional or equivalent basis.
- B. Set policy and direction on agency land/resource management planning to incorporate cost management on large wildfires.
- C. Plan, budget, and manage resources effectively for large fire suppression, such that resources for effective initial response and extended attack are not compromised.
- D. Ensure initial responses are always aggressive and driven by the principle of utilizing the closest appropriate resources, including those of local and tribal governments.

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<sup>4</sup> Western Governors' Association letter of November 8, 2004 to Secretary of the Interior Gale Norton and Secretary of Agriculture Ann M. Veneman. <http://www.westgov.org/wga/initiatives/fire/cost-ltr11-8-04.pdf>

- E. Incorporate fuels management and future fire management cost considerations when planning all resource management projects for public and private lands.
- F. Commit to improving the fire cost data infrastructure as a prerequisite step toward improving accountability and strengthening fire management performance.
- G. Develop and use a benefit cost measure as the core measure of suppression cost effectiveness.

The following are the recommendations as taken from the Panel's report including the necessary components of each recommendation as well as the goals each recommendation seeks to achieve.

**A. *Leadership, Commitment and Accountability***

Increase the level of accountability for and interest in large fire costs and their impacts by allocating suppression funds on a regional or equivalent basis and by providing direct incentives that will help change suppression management behavior. Create a dedicated group of agency administrators representing local and regional levels, and at least one member of the Panel, to develop operational rules and oversight procedures. Components of this recommendation include:

- Allocate suppression funds to regions or logical geographical divisions.
- Use predictive-based budgeting, as opposed to the current system of 10-year moving averages, as the basis for allocation. The 10-year average will not provide sufficient funds to implement this recommendation.
- Establish special relief provisions for "mega" or "extreme" large wildfires, i.e., establish reasoned estimates for reasonably anticipated levels of funding.
- Create and manage a national suppression reserve from allocated suppression funds. Eliminate "severity funding," as it is known today.
- Provide incentives for staying within allocated amounts by allowing up to 51% of "savings" to be used for other fire-related projects. Set provisions for the remaining 49% of savings to be returned to the national suppression reserve.
- Require each region or logical geographic division to contribute a co-payment to the wildland fire suppression expenditure before granting access to the national suppression reserve.
- Improve adjacent agency partnerships to co-manage the funds. Combine allocations where practical and feasible.
- Increase regional tracking and reporting of suppression expenditures. Establish a
- Headquarters' comptroller, who reports directly to the agency administrator (not the fire organization), explicitly for suppression cost allocations, monitoring, and suppression reserve management.

Generally, cost considerations take a back seat to firefighter and public safety and environmental concerns. While this hierarchy of concern is appropriate, cost considerations are never brought to the forefront. Costs and cost effectiveness have rarely been regarded as a priority for the federal wildland fire suppression organizations. As a result, most agency administrators have operated

under the current system with a sense of having essentially a blank check. The lack of accountability for costs creates the climate that leads to increasing costs of wildland fire suppression. The goal of this recommendation, therefore, is to create the accountability that is missing and the incentives for land managers to consider costs.

The Panel strongly believed that Recommendation A will provide the greatest amount of cost savings, if fully implemented.

**B.     *Resource/Land Management Planning (R/LMPs) and their Relationships to Fire Management Planning (FMPs)***

Set policy and direction on agency land/resource management planning to incorporate cost management on large wildfires. Components of this recommendation include:

- Display the anticipated wildland fire suppression costs in R/LMPs for each alternative proposed, including the no-action alternative.
- Establish the expectations in R/LMPs and FMPs for costs of implementing the plans by recognizing the probability of large fire occurrence and specifying acceptable losses, given the land management direction established.
- Where state, local, and tribal governments have established effective cost management guidance, consider it in the agency planning process.

Without the consideration of cost in the planning process, costs are simply a result of the incident and nothing else should be expected since nothing else was planned. The goal is the establishment of a "line of sight" from land management planning through FMP preparation and on into the Wildland Fire Situation Analyses that incorporates cost management as a priority. R/LMPs must recognize the wildland fire behavior conditions its decisions create.

**C.     *Sustaining Initial and Extended Attack Capability***

Plan, budget and manage resources effectively for large fire suppression such that resources for effective initial response and extended attack are not compromised. Components of this recommendation include:

- Develop standard procedures to determine minimum resource levels that need to be maintained for effective initial and extended attack in each geographic area using predictive services capabilities based on Energy Release Component, or other applicable fire danger index.
- For those resources not needed to meet the requirements noted above, develop and establish protocols for national control and positioning of those resources.

Creating a sustained program means emphasizing both a strong initial attack and extended attack capability. It must also provide for increasing state and local capability for efficient support of federal programs. This entails optimizing funds provided to field units by ensuring support costs are appropriate for services received. With maximum financial flexibility to pre-position resources, it is possible to increase initial attack success with the benefit of containing or

possibly lowering costs.<sup>5</sup> It is also critical to sustain initial and extended attack resource capability at the local level by ensuring consistent budgeting for preparedness resources. This element would involve a cohesive, long-term budget strategy that includes preparedness, emergency suppression, fuels management, and state and local fire assistance in order to implement an effective, cost-efficient fire management program.

#### **D. *Initial Attack and Extended Attack Response***

Ensure initial responses are always aggressive and driven by the principle of utilizing the closest appropriate resources, including those of local and tribal governments. Components of this recommendation include:

- Use all available local resources in wildfire suppression strategy to create an integrated and coordinated response to wildland fire.
- Form local Type 3 Incident Management Teams to manage initial and extended attack operations locally rather than rely on mobilization of Type 1 and Type 2 teams. Develop agreements with local, state and federal agencies that establish local Type 3 teams.
- Focus meaningful federal and state agencies' financial support and provide appropriate technical assistance to strengthen local resources and assure their availability on a wildfire incident.

Enhanced firefighting preparedness and increased interagency coordination at the local level will improve the cost effectiveness of federal and local wildland firefighting efforts. An effective local department that is prepared to act immediately or in cooperation with other agencies to suppress wildfires can attack and contain wildfires on adjacent state and federal land, often before state and federal forces arrive. They can also provide much-needed assistance to large state and federal wildfires, reducing national mobilization costs for federal agencies and lowering overall suppression expenditures.

Increasing the skills and availability of locally based Type 3 teams will lead to effective extended attack. When successful, the need for mobilization of higher cost Type 1 or 2 teams is negated. Additionally, the development of Type 3 teams that use local firefighters and support (regardless of agency) extensively will reduce costs in a variety of ways: the teams could take command, coordinate an effective extended attack, order necessary resources, and provide for safety through increased supervision, command and control. Most importantly, these teams will

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<sup>5</sup> Title II of the National Drought Preparedness Act of 2005 (S.802) seeks to address an inherent flaw in wildfire suppression funding administered by the Federal Emergency Management Agency (FEMA) regarding pre-positioning. Currently, FEMA has authority to reimburse states for pre-positioning equipment to combat wildfires. This reimbursement is available only for a two-week period following a FEMA declaration. However, this current authority actually acts as a disincentive to states to provide pre-positioned resources. When states proactively and effectively extinguish a fire before it becomes an emergency, they do not qualify for reimbursement. In such a case, FEMA does not make an emergency declaration because there is no emergency. Conversely, when state efforts fail at initial containment and a large fire ensues, they are reimbursed by FEMA. Title II of the National Drought Preparedness Act contains language that would ameliorate this disincentive by amending existing FEMA authority under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5131 et seq.).

have knowledge of the local conditions and landscapes that will help them make good informed decisions. Within the first few hours of a fire-start, they can be very effective in controlling the fire quickly by establishing a competent management organization.<sup>6</sup>

#### **E. *Landscape Fuels Management for Public, Tribal and Private Lands***

Incorporate fuels management and future fire management cost considerations when planning all resource management projects for public and private lands. Components of this recommendation include:

##### For Public and Tribal Lands

- Develop interagency protocols that identify and report acres of hazardous fuels reduction from wildland fire.
- Require analysis of burned-over areas and adopt active management strategies to ensure that excessive fuels do not accumulate again.
- After large wildfires, re-evaluate the impacts and feasibility of adopting strategies that use the recently burned areas as boundaries for less costly wildland fire use. Incorporate the opportunity presented by the wildfire into the unit fuels strategy.

##### For Private Lands

- Engage communities and property owners in creating defensible space around structures, and appropriate land use, zoning and construction methods/standards for structures situated in fire hazard areas.
- Strive to make R/LMPs and FMPs into national, comprehensive interagency and intergovernmental wildland vegetation defensive management plans.

I want to put particular emphasis on the fact that the Panel also found that a paradigm shift in thinking about hazardous fuels reduction effectiveness is required and can be started by ceasing to use acres treated as a “results” measurement for program accomplishments.

Despite some recent increases in funding for fuel treatments, it is apparent that current fuels reduction strategies are not able to address the full magnitude and scope of the fuels problem. Collectively, the integration of wildland fire risk mitigation measures into all resource management activities, a shift in suppression tactics and greater emphasis on post-fire fuel characteristics may reduce the overall costs of suppression, while ensuring the protection of high values-at-risk.

Solutions must address how to create a politically viable, collaborative effort to manage the landscape and mitigate fire risks within and around the wildland/urban interface.

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<sup>6</sup> See, The Changing Role and Needs of Local, Rural, and Volunteer Fire Departments in the Wildland-Urban Interface: Recommended Actions for Implementing the 10-Year Comprehensive Strategy, An Assessment and Report to Congress (June 2003). <http://www.stateforesters.org/pubs/Final%20Rural%20Fire%20Report.pdf>

## **F. *Fire Cost Management Data Needs***

Commit to improving the fire cost data infrastructure as a prerequisite step toward improving accountability and strengthening fire management performance. Necessary components of this recommendation include:

- Wildland fire management agencies should begin developing a more complete fire database and management information system.
- Forest Service Research and Development, in partnership with the fire agencies, should develop and maintain this database and develop a regular series of peer-reviewed reports and analyses that track cost patterns and influences over time.
- Establish an effective national fire-related information technology/information management framework under the guidance of the WFLC.
- Develop an integrated database for all federal, state, and local agencies involved in the collection of wildland fire data that allows for sharing information across agencies and provides for a consolidation report on wildland fire response.

The absence of information inhibits the ability to improve program management and contain costs. Not knowing fully what wildfires cost -- and why -- cripples credibility and accountability at all levels throughout the organization and with external stakeholders. Before cost management can become an integral part of the fire culture, similar to safety and stewardship, data and meaningful information on costs and cost management performance will have to be made readily available.

Data problems are not confined to suppression expenditures. Data on actual fuels treatment expenditures and treatment characteristics are also absent. Information maintained in the National Fire Plan Operations and Reporting System (NFPORS) contains planned -- not actual -- costs, and data are collected to report progress rather than evaluate and analyze actual results. Without better data on actual costs and their drivers, the agencies cannot assess their firefighting effectiveness or the efficiency with which they are managing costs.

## **G. *Cost Management Metrics***

Develop and use a benefit cost measure as the core measure of suppression cost effectiveness. Necessary components of this recommendation include:

- Measure should be supported by a comprehensive analysis of wildland fire suppression expenditures and losses averted.
- Analysis should be supported with a comprehensive knowledge base of fire management costs, suppression cost drivers, and values-at-risk.
- Losses averted and suppression costs should be estimated and compared on every fire greater than 300 acres, using defensible methodology for estimation of values-at-risk and scientific fire behavior predictions for estimating the extent of fire involvement in the absence of control.
- Benefit/cost ratios should be tracked over time and across regions and forests to assess trends.



Performance measures need to encourage managers to balance costs and protection objectives and to inform the public and government officials with a more complete picture for public debate. Without reliable and clear performance measures and cost information, land and fire managers may be compelled to select suppression alternatives to reduce potential negative impacts regardless of the cost.

Needed is a measure that helps evaluate the benefits and costs of suppression alternatives. Cost management involves not only minimizing the cost of suppression inputs and assuring their productive deployment, but also making sure that the total value of the cost and losses averted is in line with the direct and indirect costs of protecting those values. To bring the costs and benefits of an activity into an acceptable balance, managers of the activity can either increase the benefits or decrease the costs.

### **Next Steps: Implementation of the Recommendations and Congressional Actions**

The WFLC discussed implementation of the Panel's recommendations at their December 2004 meeting. An overall review of the recommendations by WFLC staff concluded that most of the report would be feasible to implement, if agency leadership is committed to making implementation of the Panel's recommendations a priority. However, resources at the agencies are stretched thin. Staff noted at the time that most of the people who should be assigned to implementation are also involved in other high priority interagency assignments.

WFLC went forward, and with some caveats and amendments, adopted the bulk of the recommendations of the Panel, and I commended them for doing so.<sup>7</sup> However, on Recommendation A: "Leadership, Commitment and Accountability," where the Panel believes there is the greatest opportunity for suppression cost saving, WFLC was not able to move forward in full. In part, WFLC had concerns that certain components of the recommendations would require Congressional action to implement. The following were noted:

- To create a national suppression reserve and thereby eliminate severity funds, Congressional approval might be required to allow reprogramming from suppression to preparedness and to create the national-level fund.
- Congressional approval was also noted as necessary to allow a co-payment from a federal land manager to the wildland fire suppression expenditure before granting access to the national suppression reserve. Appropriations law prohibits augmentation of one account with funds appropriated for a different purpose.
- To provide incentives to regional managers to stay within allocated suppression costs by allowing them to use part of any savings on other fire-related projects, Congressional approval was also noted as necessary, given the prohibition against

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<sup>7</sup> See Wildland Fire Leadership Council, Summary Decisions and Action Items, Emmitsburg, Maryland, December 2004 at <http://www.fireplan.gov/leadership/120704.html>

moving appropriated funds from one budget line-item to another (e.g., from suppression to forest restoration) without prior approval.<sup>8</sup>

As I did in the April 2005 testimony, I urge appropriate Congressional leadership to sit down with the Administration and determine how the impediments to full implementation of Recommendation A may be overcome. If Congress and the Administration want to make a serious and concerted effort to contain large-fire costs, I urge you to strongly consider making the legal changes necessary for suppression cost savings to become a reality. Moreover, given the interrelated nature of all the recommendations, I again urge the Congress to closely track and review progress made by the Administration in implementing each of the Panel's recommendations.

The Panel itself reconvened twice in the first half of 2006 to review agency progress on implementing our recommendations. Other panels I am familiar with are usually not inclined to reconvene of their own volition after completing their charge. The Panel on Fire Suppression Costs is and I believe it speaks to the commitment of all the Panel members that our work would help address this problem if the agencies were committed to implementing all of the recommendations we developed.

Some progress has clearly been made and I urge this Committee to seek a status report from the agencies in that regard. Unfortunately, it was clear to me at the Panel's most recent meetings that the agencies had not yet sought Congressional assistance in fully implementing Recommendation A "Leadership, Commitment and Accountability," where, I reiterate, the Panel believed there was the greatest opportunity for suppression cost savings.

## **Conclusion**

Wildland fire suppression expenditures have been increasing over the past two decades and have exceeded the \$1 billion mark in three of the last six years. The states' share of spending on suppression has increased commensurately. These increasing costs for wildland fire suppression threaten to topple all the efforts of the National Fire Plan, 10-Year Strategy, Healthy Forests Initiative and Healthy Forests Restoration Act. Pervasive droughts, over-stocked forests, and an expanding population base will only exacerbate the societal, economic and natural impacts and costs of wildfire suppression.

High suppression costs drain funding for other proactive forest health management efforts called for by the forest health policies and programs mentioned above. Austere federal budget estimates make it more important than ever to pursue strategic containment of suppression costs. With forests, as with people, preventive medicine is the most cost efficient approach. For

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<sup>8</sup> I want to especially note that the federal agencies have resisted this important and very valuable notion of "incentives" since the Panel made its recommendations. I understand that some of the components of Recommendation A were evaluated by the federal agencies. Providing incentives was not included in these efforts. Providing incentives for staying within allocated amounts by allowing up to 51% of "savings" to be used for other fire-related projects is something the Panel and I feel would have a significant impact on fire management behavior.

example, a Colorado State University study put direct and indirect losses to people and the environment from Colorado's 2003 Hayman Fire at \$230 million, or alternatively nearly \$1,700/acre. In contrast, fuel reduction costs range from \$200-\$1500/acre, depending on proximity to homes in the wildland-urban interface.<sup>9</sup>

By using the proactive approaches called for in the 10-Year Strategy and its new Implementation Plan to reduce hazardous fuel, restore ecosystems and increase the capacity of our communities to assist,<sup>10</sup> this nation can eventually reduce loss of life and property from wildfire catastrophes while lowering the tremendous suppression costs that are incurred.

Real savings in the suppression budget will not happen overnight. Only with strong and sustained leadership from the Congress and the Secretaries of Agriculture and the Interior can significant reductions in the costs of suppression of large fires be achieved. The Panel believes those savings are achievable if the recommendations put forward are fully implemented. As the Panel states, true suppression expenditure savings will only be achieved by focusing on strategic cost considerations as set forth in their recommendations, not on tactical cost considerations, such as the apportionment of suppression costs between all involved governmental jurisdictions. The recommendations may require certain legal changes and they most definitely require a change in the status quo of the agencies fire-fighting operations and mind set. The Panel believes the time for these changes has come. We hope the Congress and the Administration agree.

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<sup>9</sup> See, *Journal of Forestry*, September 2004, vol. 102, no. 6, pp. 42-49.

<sup>10</sup> See, <http://www.westgov.org/wga/publicat/TYIP.pdf>