

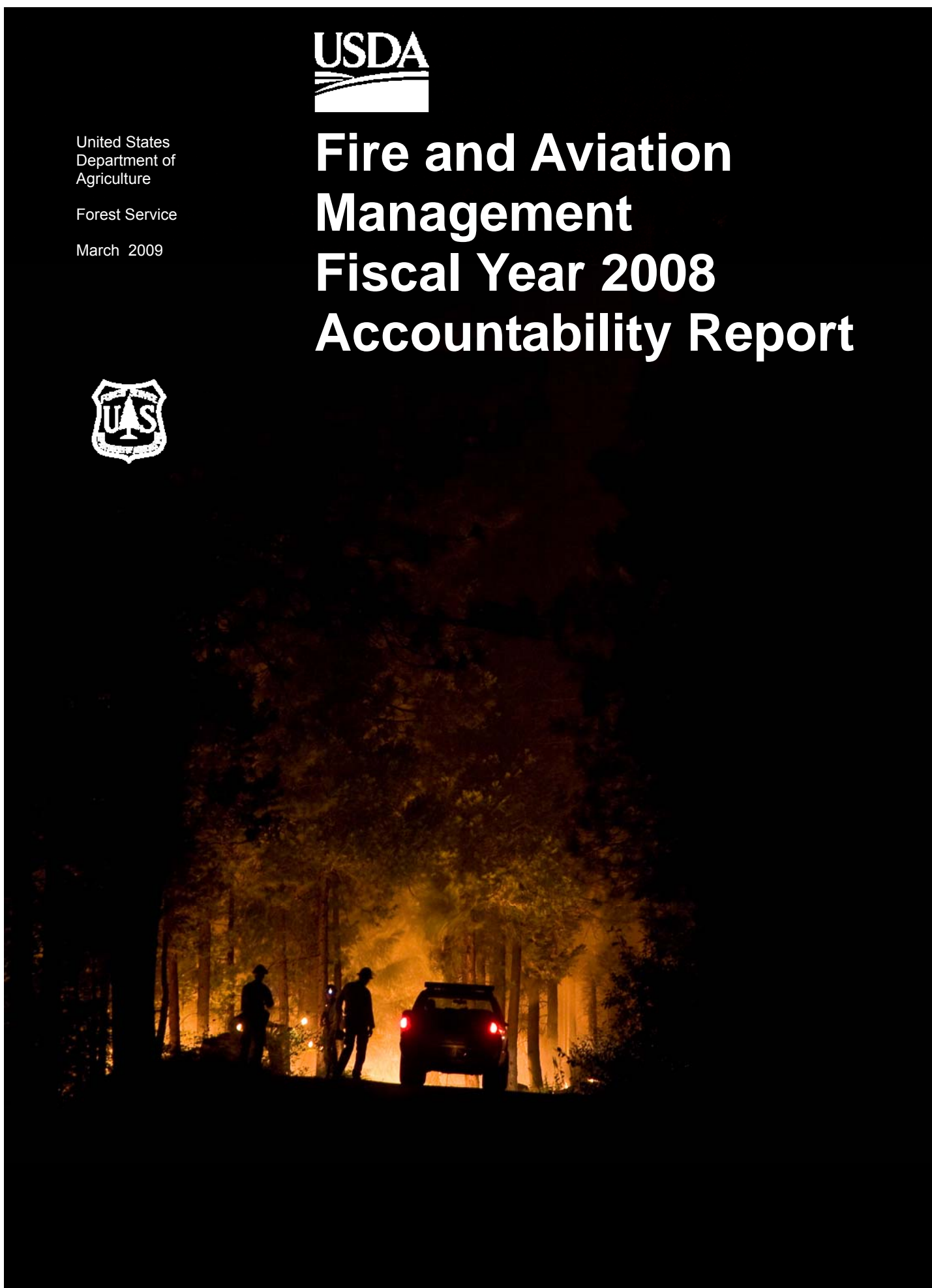


United States  
Department of  
Agriculture

Forest Service

March 2009

# Fire and Aviation Management Fiscal Year 2008 Accountability Report



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January 2009

# **Fire and Aviation Management Fiscal Year 2008 Accountability Report**



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## From the Director

The breadth and significance of the wildland fire management work we do is astounding. This report outlines just pieces of what an amazing group of women and men can accomplish. Our work is focused on preparing for fires, treating fuels in advance of fire, partnering with federal, state, and local cooperators, and managing wildfire. I am extremely proud of the work we do.

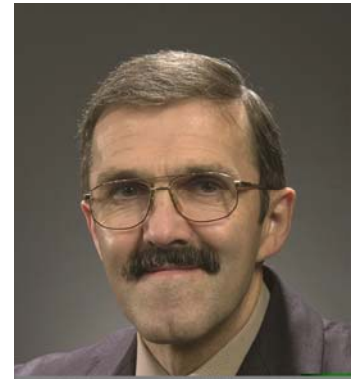
Looking back, the 2008 fire season started and ended where 2007 left off—in southern California. When work subsided in California in the fall of 2007, fire activity picked up across other areas of the country. We reached out and provided assistance to our state partners in Texas and Oklahoma as fires spread throughout those areas. At the same time, we concurrently managed federal fires throughout the Southeast and completed nearly a million acres of prescribed fire. Thankfully, fire season across the Southwest was somewhat mild; the year seemed to progress without significant fire activity on National Forest System lands. Then on June 20 through June 21, 2008, a series of lightning storms spread across California, leaving in their wake more than 1,000 fires on National Forest System (NFS) lands, 30 of which became long-term events. The race was on, resources were called to action; and many of our partners, both here at home and abroad, reached out to help us. In total, more than 1.2 million acres burned throughout the state of California by the end of August. Fortunately, fire activity in the rest of the country was average to below average.

Despite the busy California fire season, our work on the ground continued, 103 percent of the acres targeted for hazardous fuels treatment were accomplished—more than 3 million acres across all vegetation management programs.

As fire season in California worsened, we worked aggressively within the agency and with cooperators to implement strategies to manage suppression expenditures. While suppression expenditures exceeded \$1.4 billion and required agency fire transfers, the agency's costs would have been much higher without these actions.

The aggressive development and deployment of the Wildland Fire Decision Support System (WFDSS) continued in 2008 and was nationally recognized when the WFDSS development group received the Chief's Award for Excellence in Science and Technology. WFDSS supports managers in making wildland fire decisions that ensure the safety of firefighters and the public, protect structures and national resources, and efficiently use our firefighting resources, thereby reducing costs and potential losses on complex wildland fires.

We successfully deployed our 10,480 firefighters and 950 engines to nearly 74,000 fires nationwide. Initial attack was successful on approximately 98 percent of the fires. We provided assistance to our international partners when requested and deployed seven incident management teams in support of the National Response Framework during the hurricane season. Wildland fires were managed to achieve resource benefits in over 200 instances, and one—the Gun Barrel Fire on the Shoshone National Forest in Wyoming, gained national recognition when managers were able to use the full range of strategic fire options to maintain public and firefighter safety while restoring fire-adapted ecosystems and reducing the potential for future high-intensity fires. Hazardous fuel treatments conducted in previous years, coupled with energetic collaboration with residents and local fire agencies, contributed to the successful management of this event that occurred under difficult conditions of terrain and weather. The Shoshone National Forest received the 2008 Chief's Award for Sustaining Forests and Grasslands for their work managing the fire.



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Working together with our partners—federal, state, local government and non-governmental, we completed the 2009 Quadrennial Fire Review (QFR). Based on the Department of Defense’s Quadrennial Defense Review model, the QFR is designed as a strategic evaluation process, used to reassess the future wildland fire environment, summarize shifts in mission, roles and responsibilities, and agency relationships. It will help to chart a new course for fire management into the future.

We made significant accomplishments during 2008, many of which are detailed in this report. Those milestones, however, were overshadowed by unimaginable loss—a total of 12 fatalities in Forest Service fire and aviation operations.

During the 2008 fire season, I spent many hours writing condolence letters, attending memorials and funerals for our fallen firefighters. If I never attend another memorial service or funeral for a fallen firefighter in my lifetime, it will be too soon. Not a day goes by when our thoughts and prayers don’t turn to those who lost their lives protecting communities and the natural resources they loved and to their families left behind. As we continue our important work with safety in the forefront of every action we take, their selfless contributions will forever remain in our hearts; their sacrifices never forgotten.

The success of our programs is directly dependent on the people who do the work on the ground. Without their efforts, we would accomplish nothing. Our challenges continue to be many; but with our talented, dedicated employees and the support of our partners—here at home and internationally, we continue to make progress. Each year brings additional challenges; I look forward to working together toward meeting the challenges we are sure to encounter along the way, for years to come. In the meantime, I hope this accountability report illustrates the great work we do.



--Tom Harbour, Director

## Part I. Funding Wildland Fire Management Activities

### Managing Fire Suppression Costs

The Agency experienced another active fire season in FY 2008, burning almost 1.7 million acres while suppressing more than 230 large fires and expending \$1.46 billion. The effects of the wildland urban interface and climatic and ecological changes continued to make the protection of life, property, and natural resources more complex, demanding and expensive. In response, the agency continued its efforts from prior years, and initiated new efforts, to manage costs.

In FY 2008, the Forest Service continued implementation of an aggressive hazardous fuels reduction program, accelerated the use of risk-informed fire management, initiated operational efficiencies, and continued to use management controls. More specifically, these actions included:

- Focus on hazardous fuels treatments in wildland urban interface areas and in fire-adapted ecosystems that presented the greatest opportunity for restoration.
- Deployment of decision support tools such as the Fire Spread Probability (FSPro) and Rapid Assessment of Values at Risk (RAVAR) models through the Wildland Fire Decision Support System (WFSS) that supports risk-informed incident management.
- Implementation of operational efficiencies such as managing national and critical resources for maximum flexibility.
- Deployment of representatives of the Chief to interact with regional and incident leadership, introducing the concept of budgets for large fires, applying “theater” management concepts for incidents and resources, and aggressive fiscal monitoring.
- Prototype of decision analyses and wildland fire policy updates to promote efficient and effective management of unplanned wildland fires.

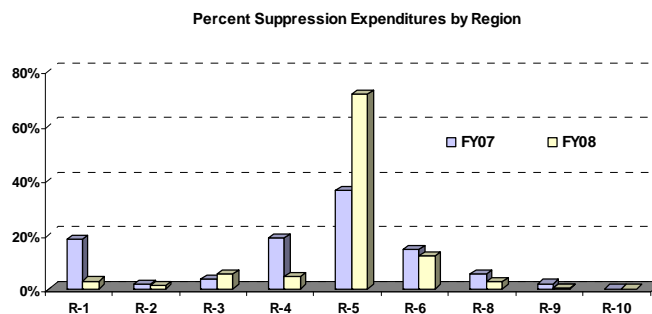
2008 Fire Season was very active throughout California Basin Complex, Los Padres National Forest



Fire and Aviation Management worked aggressively within the agency and with cooperators to implement these strategies and to manage suppression expenditures. While Forest Service suppression expenditures exceeded \$1.4 billion and required agency fire transfers, the agency’s costs would have been much higher without these management controls. These actions resulted in significantly lower suppression expenditures than would have occurred under traditional strategies.

Expenditures were dominated by fire activity in Region 5—California, in the fall and summer of fiscal year (FY) 2008. The agency spent almost \$200 million on fire suppression, mostly in Region 5, by the end of December. Moderate activity in Region 3, the Southwest, resulted in additional expenditures in the spring and early summer, followed by significant activity in Region 5 in late June, continuing through the fiscal year and was compounded by activity in Region 6, the Northwest.

Graph 1. Percent Suppression Expenditures by Region





The agency identified 27 fires in FY 2008 with federal expenditures over \$10 million. These fires accounted for \$600 million of incident specific agency expenditures and represented over 50 percent of agency direct suppression expenditures. Twenty-two of these fires occurred in Region 5, and three of those cost the agency over \$50 million each.

Forest Service large fires (300 acres and greater) averaged over \$6 million each in FY 2008, compared to large fires in recent years that averaged approximately \$4 million each. Large fires are associated with over 85 percent of agency suppression expenditures.

The Forest Service is analyzing costs associated with suppressing fires in California and is aggressively pursuing management actions which could potentially reduce future agency expenditures.

**President Bush, Senator Feinstein, and Governor Swartznegger visit Redding, California, during the fires**

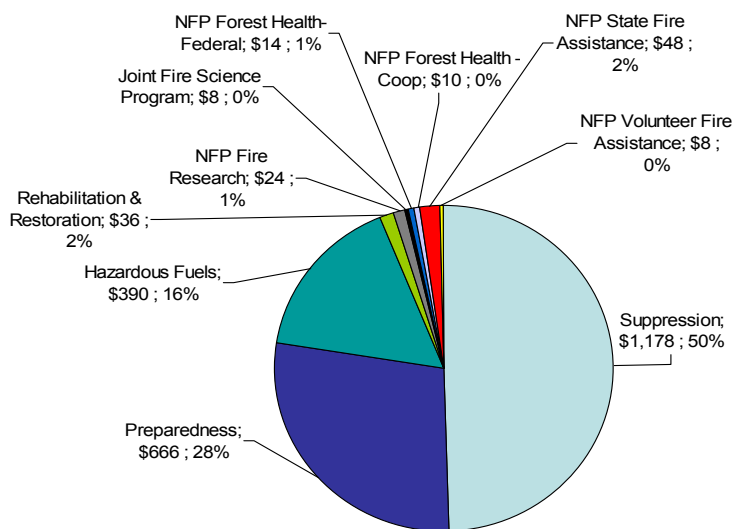


**Fiscal Year 2008 Wildland Fire Management Appropriation**

The Forest Service operated under short-term continuing resolutions from October into December which afforded the Agency the ability to continue all requirements, authorities, conditions, limitations, and other provisions of the FY 2007 Appropriations Act, other than emergency funding. The Act also stripped all earmarks from bill and report language. In December 2007, the President signed the Consolidated Appropriations Act, 2008 (P.L. 110-161), which included funding for the Forest Service through September 30, 2008. The Consolidated Appropriations Act, 2008 included specific amounts for Wildland Fire Management plus an additional amount for pay-costs. The total Wildland Fire Management Appropriation was approximately \$1.94 billion.

Early in the fiscal year, two emergency supplementals (P.L. 110-116 in November and P.L. 110-161 in December) authorized an additional \$537 million for Wildland Fire Management. A third emergency supplemental (the Disaster Relief and Recovery Supplemental, 2008 - P.L. 110-329 dated September 30, 2008) authorized an additional \$775 million. The agency received emergency supplemental appropriations totaling \$1.3 billion, of which \$432 million was for fire suppression and \$100 million was for reduction of hazardous fuels on federal lands.

- Of the \$537 million appropriated in the November and December supplementals, \$332 million was allocated for fire suppression, \$50 million for hazardous fuels reduction on federal lands, \$25 million for rehabilitation and restoration projects, \$100 million in FY 2007 fire transfer payback, and \$30 million for hazardous fuel mitigation on non-federal lands.



**Graph 2. FY 2008 Wildland Fire Management Appropriation**  
(\$'s in millions; % of Appropriation—September 2008 Supplemental not included)

- The \$775 million September supplemental included \$100 million for fire suppression, \$50 million for hazardous fuels reduction on federal lands, \$125 million for hazardous fuels reduction on non-federal lands, \$75 million for rehabilitation and restoration projects, \$25 million for firefighter retention, \$300 million in FY 2008 fire transfer payback, and \$100 million Knutson-Vandenburg Fund (K-V) payback.

The total Wildland Fire Management Appropriations in FY 2008 were almost \$3.3 billion, including the September 30 supplemental.

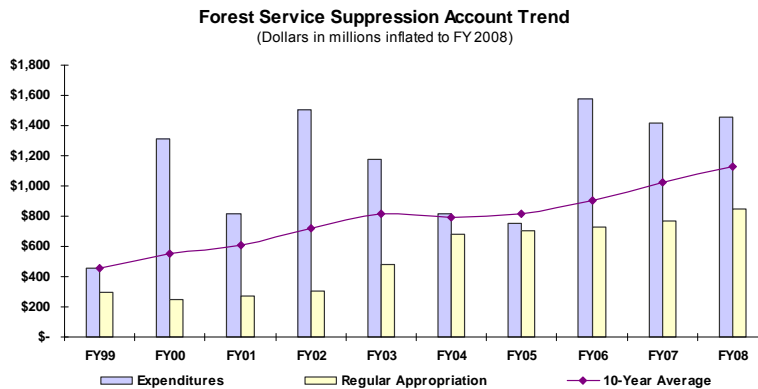
Wildland Fire Management represented a significant component of the Forest Service budget:

- The Agency expended \$1.459 billion on fire suppression in FY 2008 which necessitated three transfers of funds from other program areas totaling \$260 million.

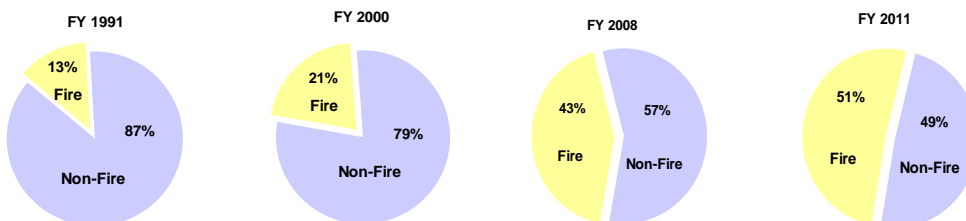
- The Wildland Fire Management appropriation represented 43 percent of the Forest Service’s discretionary appropriations in FY 2008; approximately the same as FY 2007. If present trends continue, Wildland Fire will represent over 50 percent of the agency’s discretionary budget by FY 2011.

In FY 2009, Fire and Aviation Management will continue to aggressively pursue strategies to enhance efficiency and cost effectiveness including risk-informed allocation of preparedness resources (Fire Program Analysis), increasing accountability for large fire management, establishing performance metrics for large fires, risk-informed prioritization of Hazardous Fuels treatments (Hazardous Fuels Prioritization Allocation System), prioritization of funds to states (State and Private Forestry Re-Design), and other actions.

**Graph 3. Forest Service Suppression Account Trend**



**Graph 4. Percent Forest Service Discretionary Funds in Wildland Fire Management Appropriation**



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## Success Story—Supplemental Appropriation

### **Safe Evacuation Route Provided for Community as Hazardous Fuels are Reduced Angeles National Forest**

The Big Pines project is located on the Angeles National Forest, near Wrightwood, California, between the Angeles and San Bernardino National Forests. A community of over 2,000 people during the off season, and many thousands more during fire season, Wrightwood has been threatened numerous times by large wildfires and is listed nationally as an “at-risk community” due to its location in the wildland urban interface.

The main objectives of the project were to reduce vegetation along the Big Pines Highway, one of only two routes in and out of the community and other high country areas. Reducing the presence and/or intensity of fire along this route by vegetative treatments was vital to ensuring a safe, effective evacuation of the public and fire resources during a large wildfire. Another aspect of the project involved reducing the presence and density of vegetation around organizational camps and recreational cabins located on National Forest System lands along this same highway. The result of this work created defensible space around the camps which will allow firefighters easier access to safely protect structures when the next wildfire occurs.

Implementation of the project began three years ago. A variety of treatment methods have been used to treat or

remove vegetation. The main focus of the project thus far has been removing small diameter trees in overstocked areas to improve the health and vigor of the timber stand. The remaining trees have been pruned. In addition to thinning and pruning, firewood sales have taken place to effectively reduce biomass and provide fuel wood for mountain residents. Also, in some areas of the project, brush has been removed using chainsaws.

During the project, the dead materials were either chipped or piled for burning. As weather conditions allow, the focus of 2009 will be the removal of the piles by burning. During 2008, approximately 2,700 (about 50 percent of the total) piles were burned by Forest Service handcrews with some collaboration from members of a local CAL FIRE conservation camp.

Throughout the implementation phase of the Big Pines project, Forest Service handcrews have been utilized, as well as engine crews, CAL FIRE conservation camp crews, and contract crews. As a result, hazardous fuels have been reduced on approximately 1,200 acres.

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### **Big Pines Project Angeles National Forest, California**



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## Part II. 2008 Major Accomplishments

### Introduction

Fire and Aviation Management continues to aggressively work toward the expectations outlined by the Office of Management and Budget (OMB), Government Accountability Office (GAO), the Office of Inspector General (OIG), and other regulatory agencies to ensure Fire and Aviation Management programs across the board perform well and measurable strides are made to enhance the management of these programs. As such, the following significant accomplishments were realized during fiscal year 2008:

### National Fire and Aviation Management Strategic Plan

In July 2008, Fire and Aviation Management (FAM) finalized the National Fire and Aviation Management Strategic Plan. The plan is tiered to the USDA Forest Service Strategic Plan, FY 2007-2012, and is intended to provide specific, measurable objectives, goals, and strategies for all FAM programs. The strategic plan incorporates the associated objectives, goals, and strategies previously outlined in the Forest Service Aviation Strategic Plan and the Accountable Cost Management Strategy. The strategic plan incorporates other agency plans such as the Wildland Fire and Fuels Research and Development Strategic Plan, the Woody Biomass Utilization Strategy, and the Forest Service Restoration Framework. The strategic plan concentrates on FAM's pursuit to implement sound, cost-effective management practices that will lead to healthy fire-adapted landscapes. Specific action items that respond to agency direction, the Wildland Fire Program Assessment Rating Tool (PART) Improvement Plan, GAO and OIG audits, and other areas as deemed appropriate, will be implemented under the strategic plan.

Annual operating plans, or work plans, will be developed to guide all activities that support the FAM program. These operating plans will include critical support from interagency partners and the public.

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### WFDSS Tools assist with identifying infrastructures at risk during wildfire activity



The accomplishment portion of the FY 2008 FAM Accountability Report is tiered to the six goals of the strategic plan as follows:

- Goal 1: Technology and Science
- Goal 2: Protection and Management
- Goal 3: Hazardous Fuels and Restoration
- Goal 4: Community Assistance
- Goal 5: Communication
- Goal 6: Workforce

The report lists each goal and its respective objective, followed by the significant accomplishments associated with the goal. In some cases, specific successes are recounted through the success stories.



## Goal 1—Technology and Science

*Fire and aviation management decisions are informed by best available science and technology.*

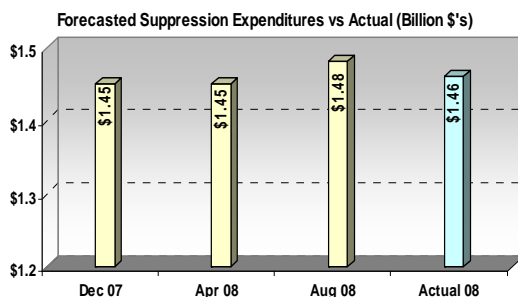
### Objectives:

1. Annually prioritize, support, and select the research, development, and utilization of future technologies that assist fire management leaders in informed decision making.
2. Have a support system in place, including adequate training and hardware which readily transfers new technology to the field upon completion.

## Fire Suppression Expenditure Forecast

Fire and Aviation Management (FAM) recognizes the importance of anticipating potential suppression expenditures and its impact on agency programs. To that end, suppression expenditure forecast models were utilized to estimate agency suppression expenditures. Periodic forecasts are developed collaboratively by economists and scientists at the Rocky Mountain and Southern Research stations. In FY 2008, these forecasts proved extremely accurate, with a margin of error of less than one percent. They provided decision support information for the agency relative to the potential for, and implementation of, “fire transfers” (the transfer of funds to fire operations from other agency accounts).

**Graph 5. Forecasted Suppression Expenditures vs. Actual (Billion \$'s)**



### Efficiencies via Next Generation Fire Planning and Budgeting System

FAM deployed the next generation fire planning and budgeting system, Fire Program Analysis (FPA), which analyzes the preparedness, hazardous fuels and suppression programs. The system enables the Forest Service and the Department of the Interior’s wildland fire agencies to jointly develop investment strategies for preparedness and hazardous fuels considering the impacts, benefits, and costs of unplanned fires. The system also supports non-federal participation.

The system has three primary components—initial response, large fire, and goal programming. The initial response component analyzes responses to unplanned wildland fires while considering prevention activities and hazardous fuel treatments. The large fire component analyzes the effects of large fires on the landscape. The goal programming component analyzes local and national trade-offs relative to five measures: 1) the occurrence of costly fires; 2) impacts to wildland urban interface; 3) obtainment of fuel and fire management objectives; 4) impacts to highly valued resources; and, 5) initial response effectiveness.

Field deployment of the system began in July 2008 with designated Fire Planning Units testing system components. Training to support the deployment was conducted through web-based seminars and workshops. Implementation for all units is sequenced commencing October through December 2008 with units provided approximately five months to complete their analysis. National goal programming will follow and outputs will be used to inform the agency’s budget process. FPA holds great potential to inform program management and budget development at both the local and national levels. The first year of implementation will be challenging as managers learn to use and improve the system, but the future payoffs in more efficient and effective programs will be worth the effort.

### Decision Support Tools Support Cost Effective, Risk Informed Decisions

Aggressive development and deployment of the Wildland Fire Decision Support System (WFSS) continued in 2008. The system is designed to support managers in making wildland fire decisions that ensure the safety of firefighters and the public, protection of structures and natural resources, and efficient use of firefighting resources, thereby reducing costs and potential losses on complex wildland fires.

In 2008, a wide variety of spatial information products and models were integrated into WFDSS, providing managers with a map-based user interface to help them quickly size up complex wildfire situations. Specific products and models included spatial fuels data layers from LANDFIRE, National Weather Service forecasts, infrared heat signatures from the TERRA and AQUA satellites, fire behavior simulation (e.g. FSPro), cost analysis (Stratified Cost Index—SCI) and values at risk analysis (RAVAR). Use of key WFDSS components included:

**Table 1. 2008 WFDSS Activity**

WFDSS Activity 2008	Number
Incidents with at least 1 FSPro analysis complete	720
Total FSPro Analysis, includes test analysis	2,255
Incidents with Basic Fire Behavior Completed	18
Incidents with SCI Completed	137
Incidents with RAVAR Completed	148

In 2008, consolidation of the current Wildland Fire Situation Analysis (WFSa), Wildland Fire Implementation Plan (WFIP), and Long-Term Implementation Plan (LTIP) processes into a single process was field tested collaboratively with the Department of the Interior. The tests represented varying levels of fire complexity with corresponding WFDSS planning and operational response levels. Field interest and feedback was supportive and constructive in furthering the development of the decision analysis system. The following summarizes designated field test sites and products produced:

**Table 2. 2008 WFDSS Response Level Analyses**

Agency	WFDSS-2008 Response Level Analyses			Total
	RL 1	RL 2	RL 3	
Forest Service <sup>1</sup>	53	3	8	64
National Park Service <sup>2</sup>	1	4	3	8
<b>Total</b>	<b>54</b>	<b>7</b>	<b>11</b>	<b>72</b>

<sup>1</sup> Payette, Bitterroot, Lolo National Forests

<sup>2</sup> Yellowstone, Sequoia Kings Canyon, Olympic and North Cascades National Park and Dinosaur National Monument

In the spring of 2009, WFDSS will deliver the decision process and training that will serve as the replacement for the current WFSa, WFIP and LTIP. State-of-the-art risk analysis and information will be available through numerous data sources and modeling systems, including additional fire simulation models and automated economic models. Long term, WFDSS will incorporate improvements related to air quality, burned area repair, multiple fire analysis, fire cost accountability, and other enhancements.

### Aircraft-Based Remote Sensing of Active Fires

In FY 2008, the Pacific Southwest Research Station Piper Cherokee, outfitted with new technology for monitoring wildfire activity during daytime hours, provided data to incident management teams on eight fires in southern California. In one instance, eight flights were conducted over the Corral Fire in one day, with a follow-up flight the next morning to demonstrate this platform’s capability to provide rapid response information. Data from these flights were posted to the internet within an hour of acquisition and were available to users in several formats, including a Google Earth view. Resulting images are high resolution and enable the user to identify individual streets and burning infrastructures. This program allows managers to quickly identify the location of active fires and fire growth in complex terrain. Data can be viewed at [www.fireimaging.com](http://www.fireimaging.com).

### Integrated Modeling for Prioritizing Fuel Treatments

Researchers at the Pacific Northwest and Rocky Mountain Research Stations continued collaboration on development and testing of a new decision support system that evaluates the threat of severe wildland fire to wildland urban interface (WUI) and other values, and prioritizes areas for vegetation and fuels treatments. They demonstrated use of the system for a landscape encompassing more than 12.3 million acres (5 million hectares) and nearly 600 sub-watersheds in Utah. The modeling approach evaluates fire danger as a function of fire hazard, fire behavior, and ignition risk. Results showed that while these risk factors are important for establishing priorities, they are more meaningful when proximity to WUI and factors such as presence of endangered species, terrain, and road access are incorporated into the analysis.

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**Alder Creek Fuels Treatment Project  
Rio Grande National Forest, Colorado**



**Monitoring Trends in Burn Severity**

The Wildland Fire Leadership Council (WFLC) has sponsored a six-year project entitled Monitoring Trends in Burn Severity (MTBS). MTBS requires the Forest Service and the United States Geological Survey (USGS) to map and assess the burn severity for all large current and historical fires (1984 to present). The project, at its conclusion, will generate burn severity data, maps, and reports which will be available to evaluate trends in burn severity and assess the effectiveness of land management decisions. The information will provide a baseline from which to monitor the recovery and health of fire-affected landscapes over time and an analytical basis for assessing whether non-catastrophic acres burned in wildfire incidents contribute to the achievement of desired conditions. To date, a historical report (1984-2005) for the Pacific Southwest and Pacific Northwest has been completed. Work continues on the historical reports for the Southwest, Southeast, and North Central areas of the United States.

**LANDFIRE**

LANDFIRE is a five-year, multi-partner project uniquely developed to produce consistent, comprehensive national vegetation and fuels maps across ownerships and boundaries within the United States. This project, now in its fifth and final year, has completed mapping within the continental United States. Maps for Alaska and Hawaii are scheduled for completion in FY 2009. LANDFIRE products assist land managers in prioritizing areas for hazardous fuels reduction and ecological restoration and are routinely used to support wildland fire suppression decisions. LANDFIRE products are used by the Hazardous Fuels Prioritization Allocation System, FPA, WFDSS, and the State and Private Forestry Re-Design Analysis Tool. Likewise, LANDFIRE feeds directly into the Southern States Wildfire Risk Assessment. A “Rapid

Refresh” cycle is ongoing for the lower 48 states and, by 2010, it will update the 1999 data currently serving as the basis for LANDFIRE. The project has been consistently delivering products on time and continues to operate within its programmed budget.

**Aerial Delivery of Fire Retardant**

In 2008, the Chief, after consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, signed a decision to ensure that environmental safeguards are in place during the use of aerial fire retardant. New procedures will ensure that aerial fire retardant is formulated and used in ways that avoid harm to vulnerable fish and wildlife species and their habitat. While the new procedures are being implemented, they remain the subject of litigation by the Forest Service Employees for Environmental Ethics.

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**Aerial Delivery of Fire Retardant  
Northern California**





## Success Stories—Goal 1: Technology and Science

### Supporting Decisions and Change—The Wildland Fire Decision Support System Klamath National Forest

In 2008, the Klamath National Forest was identified as a prototype for the new decision analysis of the Wildland Fire Decision Support System (WFDSS) and as a test unit for the Federal Wildland Fire Policy implementation guidance update. In the spring of 2009, the WFDSS decision analysis prototype will replace current decision analysis tools—the Wildland Fire Situation Analysis, the Wildland Fire Implementation Plan and the Long Term Implementation Plan. The policy guidance update will, among other considerations, allow unplanned fires to be managed concurrently for benefit and suppression strategies, as well move between suppression and resource benefit strategies.

The 1,700 acre Anthony Milne fire located in the Marble Mountain Wilderness of the Klamath National Forest just west of Etna, California, was started by lightning on June 21, 2008. The Marble Mountain Wilderness was approved for wildland fire use, but authorization had been rescinded due to fire activity and an elevated Preparedness Levels. The rescission was lifted in mid-August.

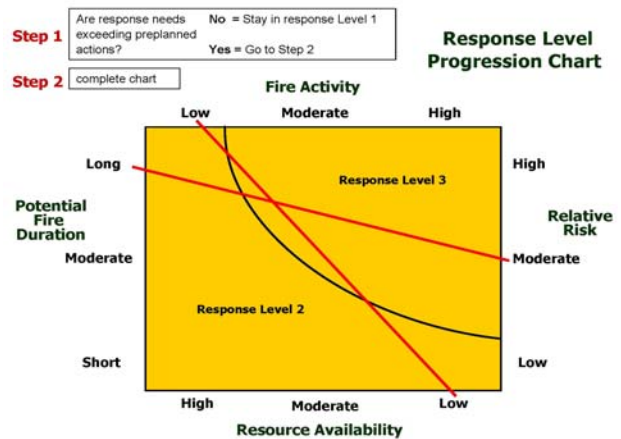
Decision support tools of the Wildland Fire Decision Support System (FSPRO, RAVAR, and SCI) were utilized to provide information to managers of the Anthony Milne Fire. This information, combined with local knowledge, was critical in supporting managers' assessment of the risk of the fire leaving the wilderness and impacting private property, evaluating costs, and placement of limited resources. The information supported the completion of a prototype Response Level 3 WFDSS decision analysis. The analysis identified a "course of action" for managing the incident which included a potential cost of \$1.3 million for core incident management and actions relative to five Management Action Points. The fire was managed using strategic objectives to obtain benefits and to implement suppression strategies where appropriate to protect lives,

property, and resources. The actual cost for implementing the Course of Action was considerably less than \$1.3 million. A cooperater, the National Park Service, also reported efficiencies when utilizing WFDSS to support decisions

#### Anthony Milne Fire Klamath National Forest



#### Response Level Progression Chart Anthony Milne Fire



#### Key Points

- WFDSS analysis tools were instrumental in supporting managers decisions, thereby increasing incident management cost effectiveness and resource utilization efficiencies
- The WFDSS decision analysis was successfully prototyped as a replacement for the WFSA, WFIP and LTIP, increasing efficiency and understanding of incident objectives and strategies
- The Federal Wildland Fire Policy guidance update was successfully prototyped, fires moved efficiently between suppression and resource benefit strategies and objectives, allowing resource benefits to be identified.



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## Forest Service Staff Receive National Recognition for Contributions in Developing and Implementing the Wildland Fire Decision Support System

Scientists and their staffs from the Rocky Mountain Research Station (RMRS) partnered with the Wildland Fire Research Development and Application Program (RD&A) to develop and implement the Wildland Fire Decision Support System (WFDSS) tools.

WFDSS was initially tested in 2006 with increased testing and prototype applications delivered during the 2006 and 2007 fire seasons. WFDSS products supported the California Santa Ana events in the fall of 2007, during extreme fire events in northern California in June and July of 2008, and throughout the remainder of the FY 2008 fire season. WFDSS provided valuable real-time decision support to improve strategic decision making by fire managers and agency administrators and demonstrated the Forest Service's commitment to efficient, effective fire management with a strong focus on wildfire cost containment during a period of unprecedented fire activity.

Development of WFDSS has facilitated the Wildland Fire Leadership Council's ability to implement fundamental modifications to the 2003 Interagency Strategy for Implementation of Federal Wildland Fire Management Policy. This change will allow all wildland fires to be managed for resource benefit objectives where and when supported by land management plans.

Management's response to WFDSS has been very positive from those who make the strategic decisions. For their contributions to the success of WFDSS, the working group for WFDSS received national recognition when they received the 2008 Chief's Award for Excellence in Science and Technology.

*"We moved more resources because we saw it was going to reach major power lines and a big utility pipeline (on the Lakin Fire). RAVAR was a tremendous tool from that standpoint as it provided additional information in developing and maintaining our situational awareness"—  
Joe Millar, (then) Forest Fire Management Officer, Shasta-Trinity National Forest, California.*

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### WFDSS Group Receives Chief's 2007 Award for Excellence in Science and Technology



## Goal 2—Protection and Management

*The Nation's communities are protected and well-prepared for fire and the Nation's resources are protected and managed through safe, efficient, effective wildland fire and aviation management and emergency response.*

### Objectives:

1. Manage wildland fires and emergency responses safely, efficiently and effectively as they occur.
2. Reduce the number of human-caused wildfires through prevention and education on an ongoing basis.
3. Land and resource management plans are developed to guide fire management and protection activities through desired conditions, objectives and guidelines.

### Wildland Fire Leadership Council (WFLC) Federal Wildland Fire Management Policy Guidance

In November 2006, the USDA Office of the Inspector General (OIG) issued a report that found the Forest Service could strengthen cost-effectiveness of its firefighting without sacrificing safety by increasing wildland fire use to reduce forest vegetation and underbrush that may fuel future fires. They found that policies in place at the time restricted the application of wildland fire use and the full spectrum of suppression response commensurate with risk, values to be protected, and land management objectives. Appropriate Management Response (AMR), which embodies this spectrum of wildfire management tools, was not well understood and inconsistently implemented in the field. As a result, a task group was formed and charged to develop recommendations and time frames for a phased modification of the Interagency Strategy for Implementation of Federal Wildland Fire Management Policy.

The task group ultimately proposed significant changes to the operational statements from the Interagency Strategy for Implementation of the Federal Wildland Fire Management Policy. The changes presented brought change to long-standing practices used by the federal firefighting agencies. Significant were the following proposed changes to policy guidance:

- Wildland fires can be managed for one or more objectives based on the unit's land/resource management plan direction. Historically, only one management objective could be applied to a wildland fire—managed either for resource benefits or suppressed, not both concurrently. If two wildland fires converged, the fires had to be managed as a single wildland fire, under a single objective.

### East Basin Complex Los Padres National Forest, California



- When two or more wildland fires burn together, the fires will be handled as a single wildland fire and may be managed for one or more objectives based on the land/resource management plan direction. As conditions change, a fire managed for suppression objectives can now be managed for resource management objectives as long as the unit's land/resource management plan direction allows. Previously, only one management objective could be applied.
- Every wildland fire will be assessed following a decision support process that examines the full-range of responses such as the decision analysis in the Wildland Fire Decision Support System, in lieu of a Wildland Fire Situation Analysis or a Wildland Fire Implementation Plan, when available in spring 2009.

- Once a prescribed fire is no longer meeting the resource objectives specifically stated in the prescribed fire plan or project level NEPA (National Environmental Policy Act) analysis and is declared a wildfire, it receives the same reassessment and selection of response objectives as any other wildfire event given the location, current conditions and identified management considerations.

The Wildland Fire Leadership Council conditionally accepted the proposed policy guidance, and the changes were implemented on several national forests during the FY 2008 fire season. Based on the results of the initial implementation, full implementation is proceeding in FY 2009.

The FY 2009 work will implement changes that describe two kinds of wildland fire—planned ignitions (prescribed fire) and unplanned ignitions (wildfire). The agencies and bureaus will work together to implement both the technology transfer and policy guidance in consultation with our cooperators and interested members of the public to ensure a well-coordinated approach.

### **Quadrennial Fire Review**

The Forest Service assumed an active role in the research, discussion, and development of the 2009 Quadrennial Fire Review. This collaborative report is a compilation of facts and recommendations regarding the best practices to deal with future challenges facing the federal wildland firefighting agencies. The report discusses wildfire costs, programs, policy development, emerging threats and risks, changing climate, drought effects, fuel conditions, development in the wildland urban interface, and budget realities.

### **Forest Service Manual (FSM) Directive Changed to Match Suppression Doctrine**

The Forest Service held field workshops to gather input from agency subject matter experts and members of the National Federation of Federal Employees (NFFE) into proposed revisions to the FSM 5100, Fire Management; FSM 5120, Preparedness; and FSM 5130, Wildland Fire Suppression. The goal of the revision is to introduce the foundational principles of the fire suppression doctrine into relevant sections of each policy. Along with interested parties from Forest Service Directives, partners from the Department of the Interior firefighting agencies also provided feedback. As a result of this work, the first review by Directives has been completed, and an internal review of the revised content will be conducted by the Forest Service in 2009. The goal is to have changes submitted as an interim directive prior to the 2009 western field season.

In late FY 2008, the process commenced to revise FSM 5700, Aviation Management. Review of the associated manual sections to incorporate doctrinal principles is underway; and workshops will continue into FY 2009.

### **Accountable Cost Management (ACM)**

Suppression costs are approaching 50 percent of the Forest Service budget, making it more challenging to provide the full suite of goods, services, and values the public has grown to expect from its national forests. To address this concern, the Forest Service adopted an approach referred to as Accountable Cost Management (ACM) which focuses our wildfire suppression decision making on safely protecting life, property, and natural resources using the most cost-efficient means that have a probability of success. An important part of ACM is the documentation of rationale for key decisions driving suppression expenditures—promoting transparency and accountability of incident management. While ACM will not continue as a distinct initiative in FY 2009, the components that proved successful in FY 2008 (e.g. documentation of key decisions) have been incorporated into the program as routine practices—program and incident management activities will continue to evolve in the face of emerging science and new data analysis.

**Infrastructure Threatened  
Mendocino National Forest  
California**



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## Large Fire Cost Review Training (LFCR) and Interagency Large Cost Review Guidebook

The Forest Service conducted four LFCR training sessions to date in various locations across the country—California, Idaho, Georgia and New Mexico, reaching more than 80 participants. The 2008 sessions were held in Atlanta, Georgia, and Albuquerque, New Mexico, where 47 participants were trained. The trainer/instructor group included an USDA Office of Inspector General (OIG) Auditor and the most experienced cost review team in the interagency fire/incident community. The course was developed in an effort to ensure consistent, fair large fire cost reviews across agencies and departments.

The curriculum for the course is based on the standards and principles of conducting a performance audit and addresses the ethics, independence, professional judgment, and competencies review team members must possess. These segments of the curriculum are led by the USDA OIG Auditor which allows a rare dialogue between the individual reviewer and one of the Forest Service's ultimate reviewing agencies. Many of the participants may or may not conduct a review, but all will bear some responsibility for the completion of their respective region's annual LFCR report. Participants range from incident business specialists to line officers to fire management officers. Because the review teams are required to consist of at least one fire operations specialist, one fiscal/acquisition specialist, and one line officer, many regions base their nominees for this course on this criterion.

In the 2008 training courses, the participant diversity included a retired line officer, entry-level DOI OIG Auditors, and NEPA coordinators. Because the training is open across agencies and departments, the consistency of cost reviews has reached the entire fire/incident community and has led to a more effective analysis by the Secretary's Independent Panel.

As a result of the 2007 training courses, the Forest Service LFCR Guidebook was developed as a tool for review teams to conduct effective, efficient reviews, with specific Forest Service guidance, a data collection checklist, and a sample report template. The Guidebook has become the key text reference throughout the training course. It is distributed to all Regional Foresters from the Deputy Chief at the beginning of each fire season. The Forest Service is working to finalize directives which will incorporate the guidebook as part of policy. The current guidebook can be found at [www.fs.fed.us/fire/publications/guidebook.pdf](http://www.fs.fed.us/fire/publications/guidebook.pdf).

In addition, the Forest Service worked with interagency partners in 2008 to complete an interagency guidebook for use by all federal wildland fire management agencies to ensure consistency in the review process across agencies and Departments. The guidebook is intended to be used for after-the-fact reviews at the local, state, and

regional levels, to identify lessons learned for reviews of incidents, either a single fire or a complex of fires, that meets or exceeds federal combined expenditures of \$10 million.

## Aviation Management Efficiencies

Recognizing the need for improvement in program delivery, FAM developed a set of management efficiencies after an Aviation Feasibility Study. Twenty-eight improved practices were developed and 22 have been implemented by the agency. Highlights of the 2008 accomplishments are expected to produce considerable cost savings as outlined in the following paragraphs:

### National Helicopter Coordinator

This position was permanently filled in 2008. The position coordinates the replacement of expensive Call-When-Needed (CWN) helicopters with less expensive Exclusive Use (EU) helicopters in the early season and continues to ensure that EU helicopters are ordered and used first.

### Performance Based Aircraft Dispatching

This program was beta-tested in 2008, and a final product is under development. Once completed, the program will better utilize information on aircraft performance and cost when helicopters are ordered.

### Exclusive Use Helicopters

Contracting for additional EU helicopters cost the agency more in up-front funding, but this contracting practice resulted in substantial savings in suppression costs, as it reduced the need for CWN helicopters in response to wildland fire.

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### Heli-torch operation during the Northern California Fire Siege





## Business Case Analysis for Airtanker Program

The aviation program has completed and submitted to OMB an exhibit 300: Capital Asset Plan and Business Case Summary for aerial suppression. The primary purpose of this report is to provide recommendations for fleet modernization by replacing aging aircraft with newer, more capable aircraft.

Capital programming integrates the planning, acquisition, and management of capital assets into the budget decision-making process and is intended to assist agencies in improving asset management and in complying with the results-oriented requirements of the *Federal Acquisition Streamlining Act of 1994, Title V (FASA V)*. This Act requires agencies to establish cost and schedule measurable performance goals for all major acquisition programs—achieving, on average, 90 percent of those goals.

The exhibit 300 is a requirement of the President’s annual budget process and applies to all federal agencies subject to Executive Branch review. The specific requirements and direction are part of OMB Circular A-11 Part 7, “*Planning, Budgeting, Acquisition and Management of Capital Assets.*” OMB requires formal capital asset planning for all major investments, including purchased and leased aircraft. Capital asset planning provides agency management with accurate information on acquisition and life-cycle costs, schedules, and performance of current and proposed assets.

Key components of Capital Asset Business Case and exhibit 300 study include:

- Support of Agency’s Mission and Goals
- Cost Benefit Analysis: Evaluate the cost vs. the benefits of aircraft used in support of Agency missions.
- Explore Alternatives: Analysis for the appropriate numbers and mix of large airtankers, airplanes and helicopters for long-term Agency use.
- Risk Analysis: Financial risk, Technical risk and Operational risk involved with the recommendations.

The desired result of this study is to provide the Forest Service with the functional capabilities required to achieve mission success safely and at the most affordable solution for the taxpayers. The end product should reflect the appropriate-sized fleet at the right cost that will meet the Forest Service mission needs for the future.

### Assistance provided by Forest Service firefighters during the Northern California Fire Siege, under the NRF



### All-Hazard Support to the National Response Framework (NRF)

The *National Response Framework (NRF)* details how the nation conducts all-hazards response from the smallest incident to the largest catastrophe. The NRF identifies the key response principles and how communities, states, the federal government, private-sector, and nongovernmental partners apply these principles for a coordinated, effective national response. In addition, it describes special circumstances where the federal government exercises a larger role, including incidents where federal interests are involved and catastrophic incidents where a state would require significant support.

The NRF builds upon the National Incident Management System (NIMS) coordinating structures to align key roles and responsibilities, linking all levels of government, non-governmental organizations, and the private sector. It emphasizes partnerships, citing that response to an incident is a shared responsibility that begins at the local level. Under the NRF, all incidents are managed locally. If the local responders need assistance, they first request local mutual aid, then assistance from the state. The state, if overwhelmed, can request assistance from the federal government. For non-fire incidents, these requests are coordinated through the Federal Emergency Management Agency (FEMA).

There are 15 Emergency Support Functions (ESFs) identified in the NRF that can provide resource support to FEMA or the affected state(s). At the federal level, the Forest Service is the Coordinator and Primary Agency for ESF #4, Firefighting (ESF4). The mission of ESF4 includes coordination of federal firefighting activities and resource support to rural and urban firefighting operations. The Forest Service is also responsible to provide support to 11 of the remaining 14 ESFs.

During disasters, the NRF may identify other ESFs which may be responsible for providing support to a state through tasks typically provided by the Forest Service. Federal disaster response was tested heavily during 2008 through both exercises and declared emergencies/disasters; several exercises involving many federal departments and agencies were held during 2008. The Forest Service actively participated in these exercises at both the national and regional levels. There were nine ESF4 activations under the NRF; three for fire emergencies and six for all-hazard emergencies.

A few highlights of the Forest Service's all-hazard support to the NRF during fiscal year 2008 included:

### **Texas Winter Fires**

Unusually dry conditions in Texas throughout the winter and spring of 2008 resulted in a Presidential Declaration of Emergency for many counties in west Texas. FEMA activated ESF4 regionally to support the state of Texas with direct firefighting assistance. The Forest Service supplied more than 15,000 personnel days of fire suppression assistance to the state of Texas over a period of more than six months.

### **Micronesia Drought/Flood**

Drought conditions followed by salt water intrusion into croplands and the water supply, resulted in an emergency situation in the Federated States of Micronesia. Under the NRF, FEMA activated ESF4 regionally to provide a forester to serve as part of a Preliminary Damage Assistance Team to evaluate damage to local water supplies and food sources.

### **Northern California Fire Siege**

A rare dry lightning storm started more than 1,000 fires in northern California in late June. These and other fires resulted in a Presidential Declaration of Emergency for several counties in northern, central, and southern California. More than 20,000 firefighters were deployed to California during July, including firefighters from Canada, Australia, New Zealand, and Greece. ESF4 was activated nationally and regionally, and for over a month, provided coordination between FEMA and the wildland fire community through operations at the California State Emergency Operations Center, two Geographic Area Coordination Centers, and the National Incident Coordination Center.

### **Hurricane Ike**

This strong category 2 hurricane made landfall on September 13, 2008, near Galveston, Texas. FEMA activated ESF4 nationally and regionally prior to landfall. ESF4 coordinated the pre-staging of five incident

management teams, 14 hand crews, and numerous overhead and other resources. These resources ultimately supported the state of Texas with logistics coordination, emergency debris clearing, damage assessments, and aviation coordination.

Support was provided by the Forest Service during the southern California fire siege in 2007, Midwestern floods in June 2008, and Hurricanes Dolly, Gustav and Hanna, as well.

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### **Incident Management Team conducts briefing for personnel at Mob Center after Hurricane Gustav in Florida**



### **International Fire Activities**

Over 100 years of wildland firefighting experience has earned the Forest Service the worldwide reputation as experts in the field. This experience, along with the technical and professional expertise of fire specialists, provides the basis for the FAM international fire program. FAM built and maintains strategic national alliances through emergency firefighting arrangements with Canada, Mexico, Australia, and New Zealand.

When firefighting assistance was needed in 2008 during the western wildland fire season, several countries provided support including Canada, Australia, New Zealand, and Greece.

Throughout the year, FAM continued to assist other nations in building their internal capacity in wildland fire management. FAM employees traveled to the countries of Paraguay and Lebanon as part of a Disaster Assistance Support Program (DASP) wildfire technical assessment team to provide technical assistance to the governments of these countries.

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Forest Service assistance to Greece during the 2007 wildland fire season continued in 2008. The Forest Service provided Wildland Fire Investigation and Fire Prevention training to the Hellenic Fire Service in Athens. Additionally, Greece sent participants to the United States to attend aerial supervision and organized handcrew training. FAM participated in the Aerial Firefighting Conference in Athens, Greece. The Forest Service hosted a Fire Prevention Study Tour for the Hellenic Fire Service and the Greek Civil Protection Service here in the United States. FAM employees provided instruction in all aspects of fire management during assignments to Mexico, India, Greece, Bhutan, Brazil, Albania and China and hosted participants from South Korea and Greece for wildland fire management training.

FAM has been an active member of the North American Forest Commission (NAFC), Fire management Working Group (FMWG) for over 40 years. The NAFC is one of six regional forestry commissions of the Food and Agriculture Organization, United Nations. NAFC provides a forum of fire policy and technical information sharing for member nations (Canada, Mexico, and the United States) to discuss and address North American forests and fire issues. The FMWG, established in 1962, is one of the nine working groups under the NAFC.

FAM continued work with the Forestry Department of the Food and Agriculture Organization of the United Nations in 2008. Through this partnership, FAM

employees assisted in the development of the international voluntary fire management guidelines. These guidelines have been translated into several foreign languages and afford better cooperation and understanding of fire management within and between countries.

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**Greek Firefighters meet with Governor Arnold Swartzennegger during California Fire Siege 2008**





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## Success Stories—Goal 3: Hazardous Fuels and Restoration

### Two Lakes Fuels Reduction Project Tonasket Ranger District Okanogan-Wenatchee Forest

The Two Lakes Fuels Reduction Project on the Tonasket Ranger District, Okanogan-Wenatchee National Forests was the first planning completed on the forest under the President's Healthy Forest Restoration Act. Two Lakes is located in the vicinity of Lost and Bonaparte Lakes, about 18 miles east of Tonasket, Washington.

Adjacent to a roadless area, Two Lakes is a heavily used recreation area featuring two major lakes, two campgrounds, three organization camps, a group of summer residences, a resort located on Washington State land, and three housing developments on private land. Interagency and community involvement was key to the progress of this project. Special use permit holders, community members and interest groups actively collaborated in the development of the Two Lakes Project. Following no objections, in 2008, the project reached approximately 50 percent completion and reduced hazardous fuels in the wildland urban interface around Lost and Bonaparte Lakes.

The Okanogan-Wenatchee National Forest consists of large dry ponderosa pines, western larch and Douglas fir with many small trees encroaching. These small, overcrowded trees are competing for nutrients, water and sunlight, weakening them and making the trees more

susceptible to insects or disease. The dense forests are a significant fire hazard, threatening the general area, and the larger trees.

The fuels reduction projects at Two Lakes are intended to provide additional defensible spaces around the recreation and residential areas as identified in the 2004 Havillah Community Wildfire Protection Plan. Treatment includes approximately 2,500 acres of commercially thinned trees, producing 7.94 million board feet of timber; 3,600 acres of ladder fuels treatment and thinning, and approximately 3,600 acres of treatment using prescribed fire.

“This collaborative project has helped restore healthy ecosystem functions while reducing the threat from wildland fire and building upon positive interactions with community members,” said District Ranger Mark Morris. Forest Service interpreters are working closely with the Tonasket Kiwanis Club to develop an interpretive sign near their youth camp, Camp Tokawani, explaining the Two Lakes project. In addition, showing their appreciation, the Boy Scouts camp on Bonaparte Lake recently sent a “thank you” letter to the Forest Supervisor expressing their gratitude for the wildfire risk reduction and for the collaborative process used.

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#### Representatives of Boy Scouts of America joined District employees to assist with fuels reduction project





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## **Collaborative Efforts to Reduce the Threats from Wildfires in Groom Creek Prescott National Forest**

The Indian Fire of 2002 blackened approximately 1,300 acres and destroyed or damaged six homes along the southern edge of Prescott, Arizona. Approximately 2 miles east of where the Indian Fire started is the small community of Groom Creek. Groom Creek was not immediately threatened by the Indian Fire; but with a shift in the wind, it too could have faced possible devastation.

The community is surrounded by tall pines and massive oaks growing on the Bradshaw Ranger District in the Prescott National Forest. Historically, the area was a mining venture that played an important role in development of the greater Prescott Basin. Today it is the locale for 500 plus homes, summer retreats, and nine youth camps.

Prior to the Indian Fire, the Bradshaw Ranger District identified the greater Prescott Basin, including the Groom Creek area, as a wildland urban interface in danger of wildfires. In response, the District began planning hazardous fuel treatments. The Indian Fire encouraged faster treatment implementation on both the Bradshaw Ranger District and private lands.

In conjunction with these efforts, Chief Todd Bentley, Groom Creek Fire Department, worked with Bradshaw Ranger District personnel to coordinate use of logging contractors and their equipment to thin overstocked stands of trees on private lands and youth camps. Working together to implement treatments made it possible to protect “both sides of the fence” with one entry while reducing impacts to the public and forest resources.

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### **Reduction of hazardous fuels protects wildland urban interface from the Indian Fire**



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## **Symposium Offers Forum for Sharing Bridger-Teton National Forest Grand Teton National Park**

More than 60 people from four states braved blizzard conditions to attend the sixth Teton Interagency Fire Effects Symposium on February 7, 2008, in Jackson, Wyoming. The symposium provided an opportunity for fire managers, researchers, and resource managers from different agencies to examine monitoring results from projects in a peer-review forum.

Representatives from the Forest Service, National Park Service, Bureau of Land Management, U.S. Fish and Wildlife Service, Wyoming Game and Fish Department, the U.S. Geological Survey, and local conservation organizations attended the sessions.

"This symposium allows us to share results from local and regional vegetation and fire effects monitoring to capitalize on what we learned and improve fire management," said Diane Abendroth, Grand Teton National Park fire effects monitor and one of the symposium's organizers. "Forums like this help keep us educated on hot topics and potential challenges that we face. By keeping informed, we can adapt fire management as necessary, which will keep us from becoming outmoded."

While attendees gave high marks to all topics presented, the whitebark pine research, snowshoe hare habitat, sage grouse study, and recent burn project discussions drew the most attention.

"These are all timely issues," Abendroth said. "We learned that ideal snowshoe hare habitat means significant ladder fuels. In order to provide a prey base for lynx, we need to be careful where we conduct fuels treatments. We heard findings from a sage grouse habitat study that indicates we should collect monitoring data on sagebrush height."

Interagency Fuels Specialist Mack McFarland said the symposium provided an avenue for federal agencies to step back from implementing fire management, take a broad look at the landscape, and analyze some results from past projects.

*"The Fire Effects Symposium brings fire and resource managers together to present their project results, which creates a greater understanding of what each group is doing and hopefully encourages a more unified approach to dealing with some of these important issues." —Interagency Fuels Specialist Mark McFarland*

### Goal 3—Hazardous Fuels and Restoration

*Hazardous fuels are treated, using appropriate tools, to reduce the risk of wildland fire to communities and to the environment. Fire-adapted ecosystem are restored and maintained to achieve land management plan desired conditions, to mitigate and respond to the effects of a changing climate, and to achieve sustainable environmental, social, and economic benefits.*

**Objectives:**

1. Within the context of a changing climate, prioritize and implement socially, economically, and ecologically sustainable management actions to reduce wildland fire risk to communities and natural resources.
2. Use fire or mechanical fuel treatments to create landscapes in which fire can be used to meet integrated resources management objectives and land management plan desired conditions for restoration, maintenance, and protection.
3. Capitalize on opportunities to derive economic benefits, recover treatment costs, or increase capacity to execute fuels treatment projects.
4. Hazardous fuels and other vegetation treatment objectives are achieved in an integrated fashion with a high degree of efficiency and effectiveness.

### HAZARDOUS FUELS ACCOMPLISHMENTS

The federal, state, local, and tribal land management agencies and communities are faced with a hazardous fuels treatment and ecological restoration job of a daunting scale and urgent need. Communities and resources are best protected from problem fires by reducing hazardous fuels accumulations before the fire starts. The Forest Service and its partners are addressing this dilemma through active management, program alignment, and resource leveraging.

FY 2008 was another very busy fire season; however, the Forest Service was able to reduce hazardous fuels on more than three million acres from across all vegetation management programs.

The Forest Service places a priority on reduction of hazardous fuels adjacent to communities—in the wildland urban interface (WUI). Since the National Fire

Plan was instituted in FY 2001, over 70 percent of hazardous fuel treatments have occurred in the WUI, treating nearly nine million acres directly adjacent to communities—an area comparable in size to the state of New Hampshire. In 2008 alone, the Forest Service reduced the hazardous fuels on 1.5 million acres directly adjacent to communities. The fuels reduction work in these areas is the most complex, costly work and must be balanced by risk, weather conditions, access, and smoke concerns. Further, these projects require intricate, collaborative relationships with communities, stakeholders, and partners. The acreage of hazardous fuels treated from FY 2001 through 2008 by the Forest Service is reflected below in Table 3.

**Table 3. Hazardous Fuels Reduction and Landscape Restoration Accomplishments, Forest Service, 2001-2008**

Accomplishments	2001	2002	2003	2004	2005	2006	2007	2008
<b>Total Acres Treated—Hazardous Fuels</b>	1,362,000	1,258,000	1,453,000	2,561,000	2,722,000	2,547,000	3,027,000	3,038,000
<b>WUI Acres</b>	612,000	764,000	1,114,000	1,700,000	1,658,000	1,590,000	1,654,000	1,941,000
<b>Non-WUI Acres</b>	750,000	494,000	339,000	861,000	1,064,000	957,000	1,373,000	1,097,000

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## Hazardous Fuels Prioritization and Allocation System

To identify high-priority areas and integrate hazardous fuels treatments, the Forest Service developed a consistent, spatially relevant process to inform funding allocation decisions in 2008. By implementing this system, the agency is now able to more effectively fund and implement hazardous fuels projects to have the greatest impact.

Both the Forest Service and the Department of the Interior (DOI) use the prioritization and allocation methodology in their respective hazardous fuels reduction programs. Nationally, consistent geospatial information is modeled to prioritize regions for hazardous fuels funding.

The following three decision criteria determine the priorities:

1. Potential for wildfire start and intensity—based on fuels potential, weather potential (incorporating climate change information), and large-fire occurrence potential.
2. Values at risk.
3. Past performance and other opportunities—other funding sources and restoration objectives.

Hazardous fuels treatment activity is also being examined in the Fire Program Analysis (FPA) system. While the current Hazardous Fuels Allocation and Prioritization System establishes the need for fuels treatment investments based on ecological conditions, values at risk, and past performance, FPA adds information about fuels treatment effectiveness. The scientific models in FPA display potential changes in wildland fire behavior based on projected fuels treatments. This added dimension will enhance the information available to program managers as the FPA and Hazardous Fuels Prioritization and Allocation System information is merged in future program management decision processes.

## National Interagency Monitoring Strategy

During the spring and summer of 2008, the Forest Service and Bureau of Land Management (BLM) conducted joint monitoring of hazardous fuels treatments to evaluate the effects of treatments on wildlife and aquatic habitat, air, and water quality. A random sample was selected from projects completed during 2005 and 2006. This monitoring protocol was developed to discover trends over time. Because this was the first monitoring year and the sample size was fairly small, few limited conclusions were made.

In total, 88 projects on National Forest System lands were monitored. Of the Forest Service projects, 70 percent of treatment projects were within the WUI. Fifty-four percent of the treatments were accomplished with prescribed fire, 21 percent were mechanical treatments, and 25 percent were a combination of treatments. Nearly all projects monitored were found to have little to no negative effect on habitats, air, and water.

## Sustainable Landscape Management Board of Directors

The Forest Service established a Sustainable Landscape Management (SLM) Board of Directors (BOD) in 2008. The BOD, comprised of six agency directors from the areas of forest management, rangeland management, forest health protection, fire and aviation management, forest management science, and watershed, fish, wildland, air and rare plants, coordinate roles and responsibilities for policy, oversight, and direction of the agency's vegetation management program. In 2008, the BOD held initial meetings, developed coordinated regional funding allocations and program direction to the field, and developed the SLM BOD Charter. In 2009, they will consider relevant issues such as integration of targets, consistency in vegetation treatment programs, and providing consistent communication to the Regions, publics, and Congress.

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### Mosaic Burn Patterns during fires in northern California as a result of previous hazardous fuels reduction projects



## Goal 4—Community Assistance

*Communities in fire-adapted ecosystems are well-prepared for wildland fire.*

### Objectives:

1. Continue to assist communities in building capacity to prepare for, suppress, and reduce losses from wildland fires.
2. Reduce the number of human caused wildfires through prevention and education on an ongoing basis.
3. Provide assistance to our partners and cooperators in the wildland urban interface in accordance with mutual agreements
4. Property owners and communities are fully engaged and proactive in mitigating impacts of wildland fire in the wildland urban interface.
5. Outreach to diverse and underserved communities at all levels of program delivery.

### Cooperative Fire

The Cooperative Fire Program has two main grant funding components, the State Fire Assistance (SFA) program and the Volunteer Fire Assistance (VFA) program. The State Fire Assistance program assists state forestry agencies in wildfire response, coordination, and delivery; compliance with the national safety and training standards that ensure state and local crew deployment to federal fires and other emergency situations; hazard assessments and fuels treatment projects; and public education efforts. Grant funding through this program supported more than \$10 million in preparedness activities, \$7 million for suppression operations and support, and \$6 million in funding for equipment. State Fire Assistance funded the training of nearly 40,000 personnel. In total, these funds benefited more than 28,000 communities.

The Volunteer Fire Assistance program, formerly known as the Rural Community Fire Protection program, is administered by state forestry agencies through 50/50 cost-sharing grants to local fire departments in rural communities. The program's main goal is to provide federal financial, technical, and other assistance in the organization, training, and equipping of fire departments in rural areas with a population of 10,000 or less. The Volunteer Fire Assistance program provided over \$9 million dollars for the purchase, maintenance or rehabilitation of equipment, supported the expansion or

establishment of 250 new fire departments, and funded the training of over 23,000 personnel. Grant funding benefited nearly 14,000 communities.

In FY 2008, significant assistance and funding was provided through the State Fire Assistance grant program for hazard assessments and Community Wildfire Protection Plans (CWPPs) to assist Communities at Risk (CAR). Community Wildfire Protection Plans addressed wildfire response, hazard mitigation, community preparedness and structure protection and provided communities a tremendous opportunity to influence how and where federal agencies implement fuels reduction plans on federal and non-federal lands.

State Foresters evaluate the progress made toward reducing the threat of wildfire in communities at risk. A Community at Risk may be considered at reduced risk by the State Forester if the community has met one of the following three conditions:

- treated high priority fuels according to its Community Wildfire Protection Plan,
- achieved FIREWISE or equivalent recognition,
- or has enacted mitigation or fire prevention ordinances.

The following chart illustrates the current status of Community Wildfire Protection Plans, as well as Communities at Risk:

**Table 4. 2008 Status of Community Wildfire Protection Plans and Communities at Risk**

NASF Region	States with CAR List/Map	Total CAR	CAR Covered by CWPP	CAR at Reduced Risk
West	17	6,312	3,455	1,138
South	13	54,300	730	8,307
Northeast	19	4,234	444	1,118
<b>TOTAL</b>	49	64,846	4,629	10,563



During FY 2008, Washington Office FAM staff analyzed the importance of incorporating fire prevention, education and mitigation into the cooperative fire program. The analysis indicates that the long-term sustainability of community-based fire protection programs is more often realized when communities themselves are knowledgeable about local wildland fire issues and they engage, along with federal, state, and local governments, to resolve those issues. Strong community participation will lead to self-sustaining local protection programs that require less assistance from federal and state governments as the communities better adapt to fire-prone environments. Prevention, education, and mitigation will continue to be a program focus area in the years to come.

### Collaboration Workshop

The Forest Service continues to recognize that working in coordination with our state and local partners is important for communities at risk from wildland fire. The Forest Service took an active role in assisting communities at risk from wildland fire by cosponsoring a workshop entitled, “Collaboration Workshop—Bringing It All Together.” This workshop was designed to enhance collaboration between federal, state and local partners. Participants included members of other federal agencies such as the Department of the Interior (DOI), state land management agencies, local government representatives, community organizations, professional organizations, environmental groups, and universities. Topics included collaboration, assessment and prioritization, structural ignitability, restoration, monitoring, and evaluation. This workshop provided an important forum for stakeholders in the WUI to discuss critical issues and common problems. The results of these discussions will improve collaboration among these stakeholders in the future.

### Community Guide to Preparing and Implementing a CWPP

As communities worked through the process of established Community Wildfire Protection Plans (CWPPs), they identified a number of lessons learned and areas where they felt the *Community Wildfire Protection Planning Handbook* could be improved. Therefore, in 2008, a group of federal, state, and local government and non-governmental partners recommended the development of a supplemental guide to the Handbook. The “*Community Guide to Preparing and Implementing a CWPP*” was the result of this collaborative effort. Specifically, the Community Guide follows the three minimum requirements for a CWPP as outlined by the Healthy Forest Restoration Act (HFRA).

This new guidebook provides homeowners, community leaders, and agencies additional tools and direction to effectively develop, implement, and monitor successful Community Wildfire Protection Plans. The guide is found on the “Helping Communities” page of the Healthy Forests and Rangelands website:

[http://www.forestsandrangelands.gov/communities/documents/CWPP\\_Report\\_Aug2008.pdf](http://www.forestsandrangelands.gov/communities/documents/CWPP_Report_Aug2008.pdf)

### Cross Boundary Protection Agreements

As part of the State and Private Forestry redesign process and Congressional direction in the 2008 Omnibus Appropriations Law, the Forest Service implemented a pilot program to develop cross boundary protection agreements between national forests and their state and local partners.

The objective of this effort is to create or enhance collaborative wildfire protection models with state and local partners leading to more effective initial attack, increased firefighter safety, and a reduction in overall suppression costs.

Citizens show appreciation to firefighters across the United States



## Fire Prevention

Although most of the attention in 2008 was on the lightning fires in California, the majority of wildfires nationally are started by humans. Fire Prevention Education Teams were deployed locally and nationally in areas with high fire danger to educate people about the danger, risk, and what they can do to prevent fires. Team goals included reduction of fire ignitions by producing public service advertisements for television, radio, and print media.

Smokey Bear received an updated look and new voice for the 2008 Public Service Advertisement Campaign with the Ad Council and the National Association of State Foresters (NASF). The campaign focused on 18 to 35 year olds and asked them to “Get Your Smokey On.” Actor Sam Elliott volunteered and became the voice of Smokey. The new campaign encouraged young adults to develop fire safe habits and to intervene when they see someone in danger of starting a fire.

Smokey Bear was featured during the 2008 Little League World Series in an advertisement with 2007 Little League Champions from Warner Robins, Georgia. The ad told folks to, “Help Smokey Strike Out Wildfires!” and was in the central region’s souvenir program guide.

More than \$14.9 million in media services were donated in the first three quarters of 2008. Radio and outdoor and transit media accounted for the majority of the total donated media support.

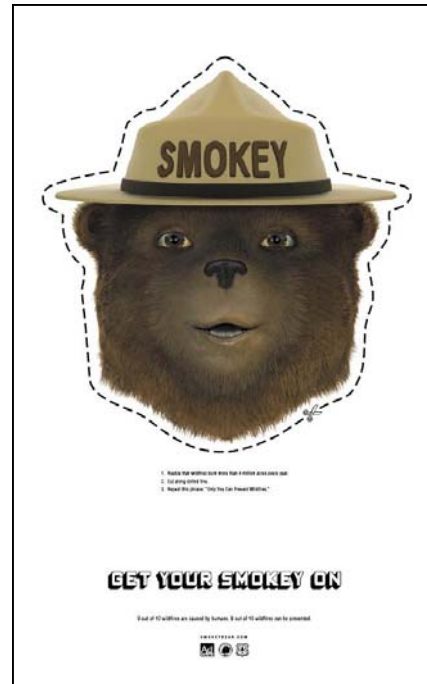
## FIREWISE Program

The FIREWISE program continued to be the national “message of choice” when defining defensible space and individual responsibility in the interface. Together, the Forest Service and National Fire Protection Association (NFPA) supported the program again in 2008.

In 2008, more than 400 FIREWISE communities were established in 37 states; there were FIREWISE liaisons in 45 states. Over 300,000 people live in FIREWISE communities nationwide. During the peak of fire season, there was an average of 30,000 individual hits on the website monthly.

*Assessing Wildfire Hazards in the Home Ignition Zone* training sessions were held across the country focusing on high risk areas. The workshops were well attended and a primary method of teaching assessment of property for defensible space was taught.

### New Ad Campaign “Get Your Smokey On”



## Federal Excess Personal Property Program

The Federal Excess Personal Property (FEPP) program allows the loan of Forest Service-owned property, including much-needed equipment and supplies, to state foresters to assist state and rural agencies and volunteer firefighters in preparedness for suppression and pre-suppression missions on federal, state, and community lands. The program provides items from fire hoses to heavy equipment; thereby, allowing substantial savings to the taxpayers.

In 2008, 426 trucks and 74 trailers were assigned to 33 state cooperators. In most instances, these items were then equipped with tanks, generators and pumps to assist firefighters on wildland and brush fires. Approximately 27 pieces of heavy equipment were loaned to state cooperators to help maintain and build fire roads. In FY 2008, the state forestry agencies acquired almost 122 thousand line items with an acquisition cost of nearly \$45 million dollars.

State foresters and the Forest Service have mutually participated in the Federal Excess Personal Property program since 1956. Currently, the inventoried property value exceeds \$1 billion with 148 operable aircraft and more than 36,000 items on the federal inventory, including close to 25,000 trucks and trailers.

In FY 2008, the program acquired more than \$44 million in fire equipment and supplies to be used for firefighting. Inventoried items include vehicles, trailers, generators, heavy equipment for road maintenance, forklifts, and fire boats. Common durable items such as pumps, tanks, and small generators (with a value less than \$5,000) are typically acquired to be placed onto a vehicle or trailer. Consumable, low-dollar property items include vehicle and aircraft parts, blankets, boots, gloves, hoses, hand tools, office equipment, and construction materials. Currently, 50 states and 5 territories participate in the Federal Excess Personal Property program.

### **Department of Defense Federal Firefighter Property Program**

The Federal Firefighter Property (FFPP) Program began in March of 2006. Through the Federal Firefighter Property Program a state is afforded the opportunity to acquire title to excess military equipment and then assign that equipment to rural fire departments. The Department of Defense authorized the Forest Service Federal Excess Personal Property program to manage the transfer of Department of Defense property through a Memorandum of Agreement.

The major difference between the Federal Firefighter Property Program and the Federal Excess Personal Property Program is the ownership of the items acquired. All items acquired through the Federal Excess Personal Property Program are the property of the Forest Service and on loan to the recipient agency, while items acquired under the Federal Firefighter Property program belongs to the recipient. The Federal Firefighter Property program's assets are screened at a higher level, therefore, making better quality and larger quantities of property available for the firefighting agencies. The program also acquires items for emergency services such as search and rescue, hazardous material spills, and emergency medical services in addition to firefighting, making it of more benefit to participating agencies. These functions often fall within the firefighting agencies' responsibilities but are not applicable to the Federal Excess Personal Property program.

Currently, 24 states have signed agreements with the Forest Service to participate in the Firefighter Property program—Alabama, Arkansas, Colorado, Connecticut, Florida, Idaho, Indiana, Kansas, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Texas, and Washington. New agreements between non-participating states and the Forest Service are being completed; five additional states are expected to be under agreement in FY 2009. In 2008, almost \$68 million in equipment was distributed to 20 states. The Pennsylvania Bureau of Forestry acquired 591 lighting units; this provided a cost savings of more than \$400 thousand to the state agency.

Through FFPP state cooperators acquired more than 800 vehicles in 2008 with an original acquisition cost of over \$36 million. Vehicles are refurbished and equipped with pumps and generators to assist in rural and wildland firefighting.

**East Side Fire Department, North Carolina, receives fire truck through FEPP**



**St. Petersburg Fire and Rescue Department received equipment through the FFPP**





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## Success Stories—Goal 4: Community Assistance

### Massachusetts Obtains Fire Boats through FEPP/FFPP

Massachusetts is blessed with hundreds of miles of coastline and more than 40 cities and towns directly abutting the ocean. Each municipality fire department is in need of craft that can respond to on-water emergencies including boat fires and rescues. Boats are also needed to access remote locations and for transport of personnel and equipment. The cost to the local volunteer fire department (VFDs) to purchase this life saving capacity is great and sometimes cost-prohibitive.

Through the Federal Excess Property Program (FEPP) and the new DoD Fire Fighter Property Program (FFPP), the Massachusetts Department of Conservation and Recreation, Bureau of Forest Fires Control, was able to acquire four excess Coast Guard response boats for use as fire boats for the communities of Harwich, Dennis, Nantucket and Orleans. These programs provide the opportunity for VFDs and state forestry agencies to screen and acquire excess federal property—trucks, pumps, boats, and other equipment, which can be used locally. The Northeastern Area provides administrative and technical support to the states to assist in the acquisition of equipment.

Providing a boat at no cost is an incredible savings to small (and large) town fire departments. Trailers and motors are often available, as well. The boats which Massachusetts received were valued at nearly \$32,000 each. Programs such as FEPP and FFPP are greatly appreciated by rural fire departments all across the United States.

With the acquisition of these boats, several other fire department in Massachusetts and Vermont who have limited access to locations other than by boat are screening for boats. All fire departments can benefit from these programs, stretching their limited dollars, taking advantage of equipment that is excess to another agency.

### Washington Office Staffs Evaluate California Fire Safe Council Program

From April 7 to 11, 2008, the Washington Office FAM staffs had the opportunity to evaluate the California Fire Safe Council (FSC) program. Fire Safe Councils play a pivotal role in addressing wildland/urban interface issues in the Pacific Southwest Region and throughout the rest of the country. The team focused on three general themes: 1) the mechanisms by which the program functions; 2) the relationship between the FSC and other stakeholders; and 3) an analysis of the strengths, weaknesses, threats, and opportunities of the program. One of the primary strengths identified in California is the statewide council/clearinghouse which provides cradle-to-grave oversight of projects and technical support to local entities. The clearinghouse has the ability to match specific funds with specific projects using the most effective mechanism, leveraging other donations to improve program delivery and allows the ability to synchronize projects while increasing efficiency and creating economies of scale, lowering the risk of duplicity. Finally, the FSC program in California consolidated the required cost-share so that poorer rural communities are not required to contribute at the same rate as wealthier, more urbanized communities. The FSC program serves as a model to improve efficiency in other similar situations.

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#### Massachusetts receives boats through the FEPP and FFPP



(Photo credit: Dennis, MA Fire Dept)



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## **Fire Prevention Programs on Olympic National Forest**

The Olympic National Forest (NF) participated in far-reaching fire prevention presentations with Smokey Bear. These programs have been carried out all over the Olympic Peninsula and the greater Puget Sound area, including Seattle. Some higher profile events include the Port Angeles Safety Day and the recent Port Ludlow Safety Day organized by the East Jefferson County Fire Organization. The forest also participated in the Seattle Mariners baseball team's Kid's Appreciation Day at the end of the baseball season. These programs allowed for wide exposure for fire prevention messages, relating to Western Washington. Several hundred families attended community safety days and several thousand attended Seattle Mariners games. It is the goal of the forest to continue ongoing participation in these programs, where a positive fire prevention message can be reinforced to the communities of Western Washington.

Every year brings opportunities to participate in a variety of events around the Olympic Peninsula. The fall is an excellent time to reach children as they go back to school. Visits to classrooms, events, and programs with Smokey Bear and fire personnel occur throughout the year. Different seasons provide for the ability to deliver messages as they relate to the fire danger. In the fall the focus of fire prevention changes from a focus on summer wildfires to issues such as safety with fires while hunting or burning outdoors. Fall prevention programs communicate fire is an issue all year, not just in the summer.

Fire management also has the benefit of working with other resource areas, such as wildlife, when participating in programs around the Peninsula. Working together has benefits beyond that of fire prevention; it builds stronger relationships among national forest resources staffs and the public.

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### **Smokey Bear plays a large role in fire prevention messaging on the Olympic National Forest**



## Goal 5—Communications

*The Fire and Aviation Management vision, direction, and expectations are understood, accepted, and supported internally, externally, and internationally, by stakeholders and cooperators.*

### Objectives:

1. Continually, leadership direction and expectations are clearly understood throughout the organization and are complementary with our cooperators.
2. Leadership, at all levels, delivers a clear, consistent message to the public regarding fire and aviation management programs and emerging strategies.

### Wildland Fire Leadership Council (WFLC) Monitoring and Performance Report

The Wildland Fire Leadership Council was established in April 2002 by the Secretaries of Agriculture and the Interior to provide an intergovernmental committee to support the implementation and coordination of the Federal Fire Management Policy. A Memorandum of Understanding was signed in October 2007 authorizing the continuation of WFLC. The Council meets regularly to provide oversight and coordination of the National Fire Plan (NFP) and Federal Wildland Fire Management Policy. As part of that oversight, in December 2006, WFLC updated its 10-year strategy to address the nation's wildland fire issues. The strategy includes four goals aimed at addressing wildland fire through the protection of people, property and natural resources; reduction of hazardous fuels; restoration of fire adapted ecosystems and post-fire rehabilitation; and community assistance. The update incorporated 28 performance measures and monitoring questions to assist federal, state, and local governments establish consistent fire management performance expectations and provide feedback on related accomplishments.

#### Information Center Redding, California



In 2008, a scientific report detailing the progress toward meeting these goals was prepared entitled, *A collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment*. FAM assisted WFLC in communicating this progress by presenting clear, consistent messaging through the preparation of two companion documents to the comprehensive report—an executive summary, prepared in less scientific terms, and a quad-fold brochure to be used by WFLC with their cooperators and publics. The publications are available at <http://www.forestsandrangelands.gov>.

### Redefinition of the National Incident Information Center (NIIC)

In an effort to streamline operations, apply new technologies and better serve its customers, the National Incident Information Center (NIIC) implemented new procedures and products for the 2008 fire season. Key changes to the NIIC included production of efficient fire information materials for its customers a new staffing arrangement.

NIIC replaced the Morning Report with a daily Personal Digital Assistant (PDA) report, sent directly to subscribers' email accounts. Whereas the Morning Report was a lengthy document with detailed fire information, the PDA report includes key fire statistics and links to the National Interagency Fire Center ([www.nifc.gov/fire\\_info.html](http://www.nifc.gov/fire_info.html)) and InciWeb ([www.inciweb.org](http://www.inciweb.org)) for users who require more in-depth information. NIIC also created a full-time position for a dedicated manager in lieu of a change in leadership every two weeks, as had been the case in the past. This new staffing arrangement promotes seamless, effective service throughout the year at less cost than the previous program.

With these changes in place, the redesigned NIIC is more flexible, efficient and better poised to serve national leadership throughout the fire season.

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## InciWeb

InciWeb is an interagency wildland fire and all-hazard incident information system developed in 2003 with two primary goals:

1. to provide a simple, standardized reporting tool for Public Affairs and Public Information Officers, and
2. to provide the public and media a single source of information.

All federal wildland fire agencies and several states participate at various levels. The system allows anyone with internet access to obtain up-to-date information regarding fire facts, closures, press releases, scheduled public meetings, maps and photos of both active and closed fires.

At the peak of the 2007 fire season, access issues were encountered due to the heavy usage by agencies and the public. In June 2008, additional hardware was added to InciWeb, and the system was moved to the FAM National Enterprise Support System. Activation occurred quickly, and performance issues encountered in the past were corrected within the first two weeks. In September, due to other technological demands, it was necessary to take InciWeb temporarily off-line to free up space on the shared server. As a result, three servers are now dedicated to InciWeb, and ongoing monitoring indicates increased capacity and performance. In August, an informal survey of incident reporting systems concluded InciWeb was the preferred platform based on cost and its user-friendly interface. In November, the InciWeb Project Team surveyed incident and public information officers who used InciWeb for input and feedback into future improvements. Project team members are planning 2009 updates for InciWeb to reflect additional incident information. ([www.inciweb.org](http://www.inciweb.org))

## Research Evaluates Effectiveness of Various Types of Public Involvement

The Forest Service, together with its collaborators, continues to evaluate factors that influence public opinion of fire and fuels treatments. A recent study conducted in California looked at the perceptions of different groups that participated in tours of fuel treatment demonstration areas. Tour groups included foresters, environmentalists, entomologists, the Natural Resource Conservation Service, teachers, and students. There were significant differences among these groups on overall acceptability of treatments, preferences based on land ownership and types of management treatments, and which variables were most important in determining treatment preferences. Increased understanding from studies such as this will assist managers to better tailor their public awareness and communication programs to specific segments of the public.

## Healthy Forests and Rangelands Website

In 2007, the Forest Service and DOI launched a new website titled “Healthy Forests and Rangelands,” to better serve individuals seeking information about the NFP and Healthy Forests programs.

The website, [www.forestsandrangelands.gov](http://www.forestsandrangelands.gov), provides a one-stop source for fire, fuels and land management information for government officials, land and fire management professionals, businesses, communities and other interested organizations and individuals.

Whereas information pertaining to the National Fire Plan and Healthy Forests programs was previously maintained on two separate websites, [www.forestsandrangelands.gov](http://www.forestsandrangelands.gov) combines these websites to create one easily accessible, accurate and timely information source.

Key components of the website include:

- A library of “success stories” that can be searched by agency, year, state or initiative.
- Updates on the implementation of Healthy Forest authorities.
- Information on woody biomass and stewardship contracting.

## Fire Management Today

Founded in 1936, *Fire Management Today (FMT)* has served the wildland fire community for more than 70 years. The publication provides information regarding new techniques, technologies, and ideas. In addition to quarterly publications in 2008, the *FMT* website was updated with past issues bookmarked to provide ease in researching issues, articles or authors.

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**InciWeb provides up-to-date information, maps, and photos in support of other information centers and the public**



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## Success Stories—Goal 5: Communication

### Partners in Fire Education (PIFE)

In June, 2008 the Wildland Fire Leadership Council (WFLC) approved a joint effort with federal, state, and local stakeholders in partnership with The Nature Conservancy and The Wilderness Society to develop new, effective wildfire communication strategies for the public. Focus groups and other survey data were used to establish a baseline of public attitudes toward fire from which to measure future changes in attitudes and to craft language and messages that increase public acceptance of an ecological role for fire. Based on these initial findings, the WFLC chartered a working group—Partners in Fire Education (PIFE), to examine current messaging and to develop new language that will be more accessible to a broader audience.

PIFE is led by a steering committee with representation from the Forest Service, Department of the Interior, Western Governors' Association, Intertribal Timber Council, International Association of Fire Chiefs, National Association of State Foresters, and The Nature Conservancy. This group is charged with developing consistent messages and delivery systems for effectively communicating with communities that are affected by wildfire. Initial new messages are planned for Spring of 2009.





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## Fire, Landscape and People: A Conservation Partnership

Millions of acres of public and private lands are in need of ecologically appropriate management and restoration, and communities across the country need better tools and information to reduce risks from wildland fire. Together, in 2002, the Forest Service, Department of the Interior, and The Nature Conservancy partnered to work collaboratively with others to improve this situation.

The partnership includes work at local, regional, and national levels, engaging agency staffs and private partners across the nation to implement three main partnership components:

- U. S. Fire Learning Network (USFLN)
- Fire Training Program
- Fire Education Program

### Selected Accomplishments (2002-2008)<sup>1</sup>

- The USFLN engaged 95 landscapes in 37 states working with more than 650 partner groups to overcome barriers to fire regime restoration.
- Since 2002, USFLN projects have raised over \$13 million to support their landscape restoration activities, collectively treating more than 550,000 acres.
- From 2002-2008, 74 courses were offered and more than 2,400 people were trained in ecological fire management concepts and techniques. Courses included fire effects, fire ecology, and fire operations.
- As part of the Partners in Fire Education project, public opinion research on fire was conducted and a blueprint for a national campaign about fire's nature role was developed.

For additional information visit: <http://www.nature.org/initiatives/fire/partnership/art15304.html>

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The Forest Service in partnership with other members of the USFLN work together to reduce the risks of catastrophic wildfires across the United States



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<sup>1</sup> Information obtained from The Nature Conservancy

## Goal 6—Workforce

*Fire and Aviation is a diverse, service-oriented, innovative, highly skilled, accountable organization.*

### Objectives:

1. Develop and maintain a professional wildland fire, fuels management, cooperative fire, and aviation workforce.
2. Continue to support a diverse workforce which reflects the American workforce.
3. Implement a performance management system that honors, values, encourages, and awards innovative thinking.
4. Develop metrics that define employee accountability in meeting their fire and aviation management commitment.

### Human Resource Specialists (HRSP) for Wildland Fire Incidents

FAM continues to support an incident Human Resource Specialist position for all large fire incidents with human resource, civil rights, and conduct issues. Due to the expertise provided by this position, 99 percent of all reported concerns on fire incidents were brought to resolution in 2008.

### National Wildland Firefighter Apprenticeship Program

FAM continues to support the National Wildland Firefighter Apprentice Program. The National Wildland Firefighter Apprenticeship Program is an accredited, educational program designed to enhance and develop future Fire and Aviation managers. This program operates under an agreement with the Department of Labor, Forest Service, Bureau of Land Management and the National Park Service and is hosted by the Forest Service Pacific Southwest Region. The intent of the program is to assist individuals who want a career in Fire Management within the federal fire agencies.

### Washington Internships for Native Students (WINS)

The WINS program provides participants with the experiential learning opportunity of a professional DC internship. Students learn by doing in a fast-paced, real-world setting at a wide range of federal agencies and private sector and American Indian/Alaska Native/Native Hawaiian organizations. Participants intern at an agency for 35 to 40 hours each week. In addition, as part of the Internship Seminar, each student prepares a portfolio of their work experience and research.

In 2008, FAM continued their support of WINS by sponsoring an intern at the national headquarters to work on budget and performance accountability issues.

### FAM Equal Employment Opportunity (EEO)

FAM has developed a model EEO program supported by the National FAM Workforce Diversity Committee to, among other initiatives, facilitate proposals designed to attract, support, and retain underrepresented diversity groups. In FY 2008, FAM committed \$650,000 to this effort.

### Positions Selections and Detail Opportunities to Increase Capacity and Diversity

During 2008, thirty-five percent of the selections for key positions on the staffs of the Washington Office FAM organization denoted underrepresented groups. Additionally, FAM provided detail opportunities in the Washington Office for several diverse candidates throughout the year.

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### EEO Program supports National FAM Workforce Diversity Committee



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## Advanced Wildland Fire Training Program at Schenck Job Corp Center

In 2008, FAM provided \$100,000 to the wildland fire training program at the Schenck Job Corp Center on the Pisgah Forest, North Carolina. This year nine students completed the Schenck Advanced Wildland Fire Program and were approved as Student Career Experience Program (SCEP) students assigned to national forests across the Eastern Region.

## Veterans to Firefighters Program

To maximize the recruitment opportunities and hiring potential for veterans into entry level firefighter positions on national forests, FAM developed a “Veterans to Firefighters” program. Through this program, the Forest Service uses the Veterans Recruitment Appointment (VRA) hiring authority to increase diversity and provide quality employment opportunities for returning veterans.

The Washington Office, FAM, provided funding to the National Forests of Florida to establish the foundation for a recruitment and hiring pipeline for veterans to be hired into entry level GS-3/4/5 firefighter jobs on national forests throughout the nation. The project has been funded for FY 2008 through 2010. A national Memorandum of Understanding was signed with the Department of Veteran’s Affairs (VA) to utilize the Veteran’s Readjustment Act and Vocational Rehabilitation and Employment (VR&E) Program to employ and train veterans as firefighters. Under the VRA hiring authority, veterans can be appointed directly into positions for which they are eligible which enables the Forest Service to hire qualified, diverse veterans in an expeditious manner, thereby increasing the diversity pool of applicants for entry level firefighting positions within the Forest Service.

## Professional Liability Insurance Eligibility

On December 26, 2007, the President signed Public Law 110-161, the Consolidated Appropriation Act 2008. This law contained a provision to greatly expand the pool of agency firefighters eligible to seek reimbursement of approximately one half of the annual premium for professional liability insurance.

It is believed that this Act will be an incentive for more Forest Service and other federal fire agency employees to remain in fireline positions that have the potential for being sued or held criminally liable for their actions while involved in incident management.

Professional liability insurance became an issue upon investigation and subsequent indictment of a fireline supervisor on the Thirty-Mile Fire in Washington State. This legislation was carried forth by a Congressional representative from the area of the Thirty-Mile Fire.

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## Schenck Advanced Wildland Fire Program trains SCEP students to work on national forests across the country



FAM worked closely with Human Capital Management, members of the NFFE, and other federal wildland firefighting partners to determine who would be identified as “temporary fire line managers” and thereby eligible for reimbursement. FAM worked to assist in establishing a process between Human Capital Management, and Budget and Finance to ensure that the correct employees are reimbursed.

## National Advanced Fire and Resource Institute (NAFRI)

The National Advanced Fire and Resource Institute (NAFRI) is a national level center serving the interagency wildland fire community through the development and implementation of fire, fuels, resource, and incident management skills and educational process.

NAFRI’s vision is dedicated to the diverse interagency fire, fuels, resource, and incident management community in developing and enhancing learning experiences. The Institute assists in the creation of innovative solutions that concern fire and all-hazards management.

In 2008, NAFRI recognized the following accomplishments:

- The “Corporate University Concept” was presented to the National Wildfire Coordination Group (NWCG), the FAM Assistant Directors, and Fire Directors.



- French/United States High Reliability Organizing (HRO) Research Project activities included two visits from the French to the United States. In December, the U. S. Team went to France to participate in simulations on the French simulators. These simulations were broadcast live on the NAFRI website. Researchers are currently completing their research and final reports.

### Lessons Learned Center

The Wildland Fire Lessons Learned Center (LLC) actively promotes a learning culture to enhance and sustain safe and effective work practices in the wildland fire community. The Center provides opportunities and resources to foster collaboration among all fire professionals, facilitates their networks, provides access to state-of-the-art learning tools, and links learning to training. The following accomplishments were made by the Center in 2008:

- Four new “Learning from Incidents” on-line videos were produced as part of the “Firefighter Remember This” series. These videos were used in training and tailgate safety sessions by the interagency fire community.
- “High Reliability Organization (HRO) for Wildland Firefighters—An Introductory Video” was produced as a learning tool for the interagency fire community. It is being used at wildland fire refresher training, workshops and meetings to introduce the HRO concepts.
- Prescribed Fire Escapes and Near Misses Information Collection Team Report used the lens of HRO to assist burn bosses and fire managers to learn how to better anticipate the unexpected. Prompts to be used around the sand table are the foundation of this learning tool.
- Fifteen “Learning from the Experts” short on-line videos were produced using the Deep Smarts methodology. Veteran fire behavior and other fire management specialists share their business wisdom as learning tools for the wildland fire community.
- “Managing the Unexpected” sponsored by LLC was held in the North East with 60 students completing the training.

### Qualifications for the GS-0401 Fire Management Specialist Positions

FAM and Forest Service Human Capital Management conducted qualifications reviews of employees in the GS-0401, General Biological Science series, previously identified and affected by the Office of Personnel Management (OPM) policy requiring a positive education requirement and prohibiting the use of National Wildfire Coordinating Group (NWCG) courses not supported by transcripts from accredited institutions to meet that requirement. All reviews of affected employees were

completed in 2008 and each was notified of their status. However, in October 2008, the Forest Service was advised by the Office of the Inspector General (OIG) of a “Management Alert” regarding the use of the GS-0401 series for Fire Management Specialist positions. This “Management Alert” cited major concerns by OIG in using the GS-0401 series to enable the Forest Service to meet its fire management staffing needs. As a result, the Chief directed all units to “stand down” any further implementation of the GS-0401 series at grade levels GS-9 through GS-12. Once the OIG final report is issued, the agency will assess the recommended actions and develop an appropriate policy and path forward that will include appropriate series classifications to meet the operational needs of the Forest Service.

**Firefighters maintain fireline in northern California**



### California Firefighter Recruitment and Retention

In April 2008, the Regional Forester in the Pacific Southwest Region (Region 5) provided recommendations to the Chief of the Forest Service to improve firefighter retention with the Forest Service. The Chief authorized the Regional Forester to act on retention incentives within his authority in four areas: mission related to fire suppression, workplace improvement, fire facilities, and pay. The Regional Forester assigned four teams to develop specific actions to address these areas. The team recommendations were completed and presented to the Regional Forester in October 2008.



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The recommendations proposed by the teams are expected to improve firefighter retention within the Region and will be monitored to ensure their effectiveness. Some of the recommendations will result in increased baseline costs and could affect the ability of the Region to sustain current staffing levels over time. In the short term, supplemental funding will be used to cover increased salary costs, but this type of funding is not generally sustained year to year.

Retention recommendations that fell within the Regional Forester authority are being implemented and will be monitored for effectiveness. Additionally, staff work for recommendations, outside the Regional Forester's authority, is being completed and will be forwarded to the Washington Office for review and further action.

Actions taken by the Regional Forester:

### **Firefighter Pay**

The Regional Forester has implemented a 10 percent retention incentive for all employees in positions covered by firefighter retirement at the GS-05 through GS-08 pay grades. This incentive will be provided for one year beginning in early March 2009. Further evaluation will be conducted after the year has concluded.

### **Conversion of Firefighter Tours of Duty**

The Regional Forester has authorized the conversion of all permanent seasonal tours to permanent full-time tours for all firefighting positions. Conversion of tour will be at the discretion of the individual employee. These conversions will ultimately result in all permanent seasonal firefighting positions being converted to full-time permanent full-time positions.

### **Fire Facilities**

A list of short-term projects, having a direct, immediate impact toward improving health, safety and mission capacity has been developed. Once funding is secured, the Regional Forester will provide direction to implement these immediate impact projects. In the long term, the Regional Forester will direct the region to complete the Strategic Facility Master Plan, which will allow fire facility needs to be analyzed on a regional scale instead of the forest-by-forest process currently in place.

### **Recommendations Outside the Regional Forester's Authority**

The Regional Forester has commissioned two teams to work with the Washington Office to develop the staff work needed to propose a wildland firefighter specific job series and to propose implementing ordered standby for employees assigned to active incidents. Both proposals are challenging and have the potential to significantly increase costs for the agency. In the case of the wildland firefighter specific job series, we must meet the standards for change established by the Office of Personnel Management; and in the case of ordered standby, some studies have suggested a projected cost of an additional \$146 million a year. These are not insurmountable challenges, but they will require a significant investment of time and effort.

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**Firefighters conduct night operations in northern California**



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## Success Stories—Goal 6: Workforce

### Schenck Job Corps Program Trains Students as Forest Service Wildland Firefighters

The Davidson River Initial Attack Crew, Schenck Job Corps CCC, strives to preserve the legacy of the U. S. Forest Service through professionalism, dedication, and a strong work ethic. As a crew they take pride in providing highly motivated, skilled professional personnel for wildland fire operations and all-hazards assignments while offering demanding, diverse training opportunities to ensure the traditions of the Forest Service are maintained.

The program is aimed at providing training and enhancing the skills of Job Corps students through an advanced wildland fire training program and ultimately placing them into the Student Career Experience Program (SCEP). Training components include: firefighter and public safety, fire behavior and the fire environment, appropriate management response, basic suppression strategies and tactics, aviation, basic first aid and cardio-pulmonary resuscitation, physical and mental fitness, communications and teamwork, crew organization and procedures, civil rights, respect and diversity in the workplace training, ethics, and good conduct.

The firefighters in the Schenck program are trained to operate under the Forest Service doctrinal guidelines and in a leadership and values based culture. The ultimate goal of the program is to provide a career track for Job Corps students interested in wildland fire careers by entering the students into the SCEP program, providing appropriate state-of-the-art training, and ultimately converting the students into permanent fire positions throughout the nation—assisting the Forest Service in building the future capability and capacity the agency will require.

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#### Firefighters in the Schenck Advanced Wildland Fire Program are trained to operate under the Forest Service doctrinal guidelines



*“In 2008, Job Corps students from 16 Forest Service Centers assisted with national firefighting efforts. The students worked on 75 different fires in 14 states across the nation.*

*The Schenck Job Corps CCC Wildland Advanced Fire Training crew, along with students from the Flatwoods Job Corps CCC, were called to assist during the national disasters caused by Hurricanes Ike and Gustav. Students from the Mingo Job Corps CCC assisted in disaster relief during the severe flooding in the Midwest this year.*

*Job Corps is part of the national incident management organization and is available to respond to all national emergencies. Our students take pride in these opportunities to give-back to the country that has provided them an opportunity to advance their education and careers”—Donn Christiansen, U. S. Forest Service, Job Corps National Office*

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## **Tupper Fire and Fuels Career Camp Heppner Ranger District Umatilla National Forest**

The Tupper Fire and Fuels Career Camp is a week-long residential camp designed to spark the interest of high school seniors in a career with the U.S. Forest Service, with an emphasis on fire and fuels management. The objectives include maintaining a diverse workforce and encouraging that diversity through information sharing with potential candidates about fire and fuels as a career choice, and fostering mutually supportive partnerships with local communities through the school districts.

The first Tupper Fire and Fuels Career Camp was held in October 2007. Students were recruited from the three high schools in Morrow County. Sixty applications were distributed, 18 applications were received, and 14 students ‘graduated’ from the 2007 camp. The camp was broadly supported by the Morrow County School District, our primary partner. In addition, Oregon Department of Forestry (ODF), the U.S. Fish & Wildlife Service (USFWS), the Blue Mountain and Central Oregon Community Colleges, and five National Forests participated in the camp’s instruction and development.

The curriculum was designed to provide broad exposure to our hiring authorities, educational opportunities, financial aid and scholarship options, map reading and orienteering, fire ecology and natural resource management, hazardous fuels reduction, and fire suppression techniques. Participants in the 2007 camp were encouraged to apply for seasonal jobs with the Umatilla National Forest and cooperating agencies for the summer of 2008. Nearly 50 percent of the 2007 camp attendees were hired during the 2008 fire season for seasonal work—almost 60 percent were from under-represented groups such as women, minorities, and people with disabilities.

## **Tupper Fire and Fuels Career Camp On Umatilla National Forest trains local high school students to be wildland firefighters of the future**



The Umatilla National Forest is an excellent training ground for new employees. The forest frequently has complex wildland and prescribed fires, and has ample needs for temporary positions (approximately 60) and numerous permanent seasonal vacancies each year. The forest has long standing, positive connections with local communities and students. These relationships provide a solid foundation for success. Local demographics and population trends make Morrow County and Hermiston School Districts an excellent recruiting ground, and the Heppner Ranger District’s work center, Tupper, provides an ideal setting for the camp.

The goal of the 2007camp was to broaden the applicant pool for the 2008 fire season. The long-term vision is to create a self-sustaining career orientation camp that is strongly supported through partnerships with local communities to maintain a high level of participation from women, minorities, and persons with disabilities, assisting the Forest Service in maintaining the appropriate capacity and capability for firefighters into the future.

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## Part III. Looking Ahead to Fiscal Year 2009

The science around wildland fire management continues to develop at an extraordinary pace and FAM is committed to use new tools and information in partnership with other agencies, state governments and cooperators to continually improve the quality of our management at both the program and incident levels. We are convinced that an expanding, improved knowledge base around wildland fire management will help us reach our goals related to a safe, efficient, and effective program.

In addition to continuing the substantial routine work of a large, complex, and multi-faceted program, 2009 will include the following key focus areas:

- Several key actions are being planned and initiated to immediately enhance aviation safety during the 2009 fire season. These actions will provide more stringent contract standards, increase compliance oversight capacity, and provide clear leader's intent throughout all levels of the organization.
- With the continuing success of science based large fire decision support tools in providing active real time assessments and projections of large fires with calculated confidence levels, Fire and Aviation Management, in partnership with Research and Development, anticipates further investments in these decision support tools and their underlying science.
- The Forest Service will continue to meet ecological, suppression, and economic challenges as it uses science-based tools to safely promote fire-adapted ecosystems and communities.
- In FY 2009, National Incident Management Organization (NIMO) teams will assist in preparing for and managing the largest, most costly fires. They will work with line officers and fire managers to provide pre-fire season training and assistance on National Forests where these large incidents usually occur.
- The Agency will continue its emphasis on performance and will work to improve performance metrics for Line Officers and Incident Management Teams. These performance metrics will help managers incorporate risk-informed management principles into their decision processes.



- The decision analysis component of the Wildland Fire Decision Support System (WFDSS) will be fully implemented in the spring of 2009. Concurrently, the Agency will transition to full implementation of the updated Federal Wildland Fire Policy guidance through the recognition of two kinds of fire: 1) unplanned ignitions; and 2) prescribed fires. The WFDSS decision analyses will be used in lieu, of the Wildland Fire Situation Analysis (WFSAs) for suppression fires, the Wildland Fire Implementation Plan (WFIP) for wildland fire use fires and the Long Term Implementation Plan (LTIP).
- Implementation of the federal wildland fire policy guidance will require the entire agency to invest energy and time with our interagency partners and stakeholders to effectively communicate, not only our intent, but also to demonstrate our interest in engaging them effectively.



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