



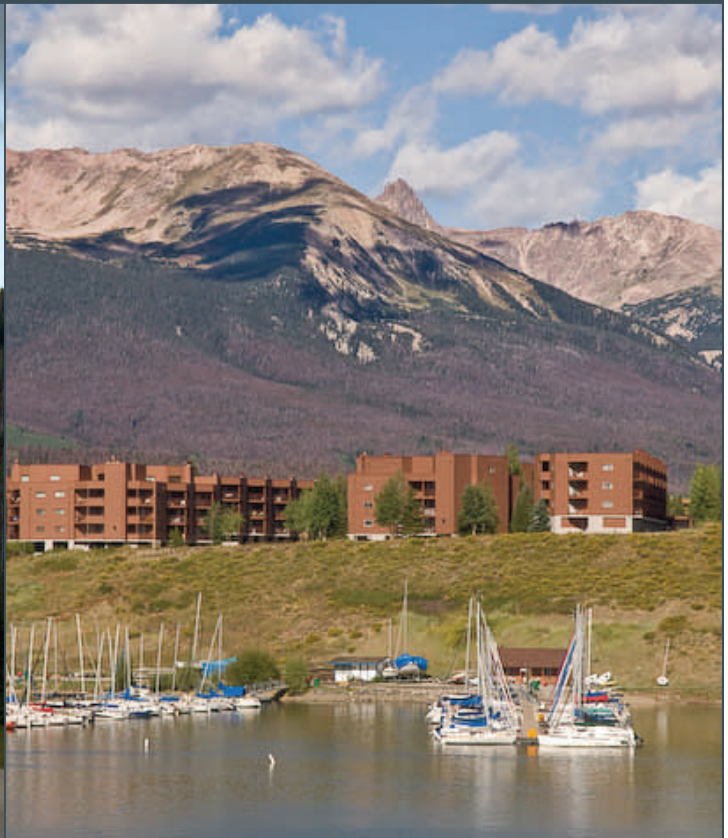
United States  
Department of  
Agriculture

Forest Service

May 2011



# Fire and Aviation Management Fiscal Year 2010 Accountability Report



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# **Fire and Aviation Management Fiscal Year 2010 Accountability Report**

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## From the Director

This year, we don't just celebrate all that we have accomplished as an organization; but as the 2010 wildfire season came to a close, we celebrate the fact that we experienced no loss of life this year on fire-related assignments. Although this should be the case every wildfire season, the reality is that we work in a hazardous environment; and we are often not so fortunate. This year, we celebrate!

As you read through the 2010 report, you will see that we were once again accountable to the American people and that we accomplished what we set out to do. For that, we are proud. When we look back and reflect, one of our major accomplishments for 2010 includes the drafting of the first phase of "A National Cohesive Wildland Fire Management Strategy."

Addressing the planned and unplanned fires across the United States is not simply a fire management, fire operations, aviation operations or wildland urban interface problem—it is a larger, more complex land management and societal issue. America has multiple, localized, wildland fire problems that will only be solved when we enter into partnerships with our neighbors, use the best-available science, and work across "all lands," regardless of the jurisdictional boundaries.

In the first phase of the national cohesive strategy, we came to a conclusion that the vision for the next century is to, "*Safely and effectively extinguish fire, when needed; use fire where allowable; manage our natural resources; and as a nation, live with wildland fire.*" This vision does not embrace the status quo – it leads us to improvements.

Together with our partners, the strategy identified three primary factors—to restore and maintain resilient landscapes; create fire-adapted communities; and safely and efficiently respond to wildfire. "Good enough" just isn't for our great nation. Developing a national cohesive strategy is important because it will set a framework for our agency's roles and responsibilities in wildland fire and aviation management.

With that in mind, this year, we have prepared our report so that our accomplishments not only demonstrate our accountability to the goals identified in the USDA Forest Service Fire and Aviation Management Strategy Plan and to the performance measures identified by our regulatory agencies, but we will also associate the appropriate cohesive strategy primary factors and the goals with our reported accomplishments.

As is always the case, the largest portion of our success is directly dependent on the people who do the work on the ground. Without their efforts, and those of our partners, we would accomplish nothing. Every year brings with it new challenges, and every year, our employees and our partners—national and international, rise to those challenges and make a difference. I hope this 2010 Fire and Aviation Management Accountability Report illustrates the good work we have done throughout the year.



—Tom Harbour, Director  
Fire and Aviation Management  
USDA Forest Service



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## Part I. Introduction

### A Look Back at the 2010 Wildfire Season

Fire activity was minimal across the country throughout the winter. The Southwest was somewhat active in early January relative to normal; however, this was quickly mitigated by widespread, heavy precipitation that began in mid-January. By the end of February, nationally, there were 42 percent of the average number of fires and 26 percent of average acreage for the year.

By the end of May, fire season 2010 could be described as “below normal” across the contiguous United States and much above normal in Alaska. Nationally, 78 percent of the total number of fires and 62 percent of the total acres burned in comparison to the 10-year average. This season, Alaska was once again the exception reporting 163 percent of its 10-year average and 580 percent of its 10-year average for acres burned. By the end of May, Alaska had burned nearly 40 percent of the total number of acres burned nationally.

With the exception of Alaska, overall, the remainder of the United States experienced “below average” fire activity. The Eastern area experienced average fire activity during the spring (99 percent), with below average acres burned (85 percent). Both Northern California and the Eastern Great Basic Geographic Areas also reported near average for numbers of fires, but both



**The 2010 wildfire season could be described as “below normal” across the contiguous United States and much above normal in Alaska**

were well below average acres burned. All other Geographic Areas were below their average for both numbers of fires and acres burned.

During the 2010 fire season, the national preparedness level (PL) never exceeded PL 2—out of a four level system.

## Part II. 2009 Wildland Fire Management Appropriation

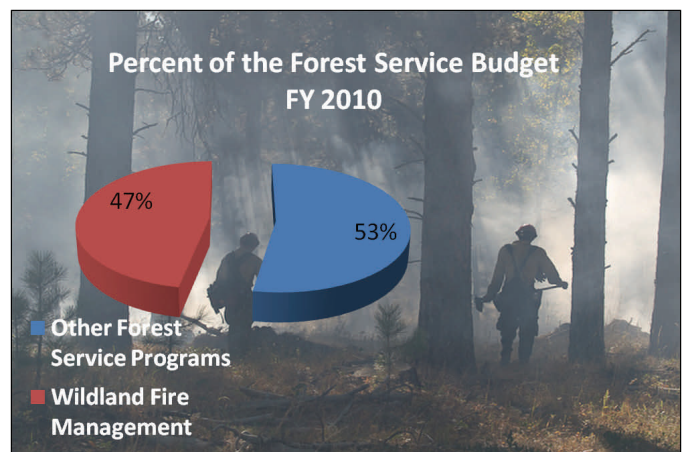
### Wildland Fire Management Appropriation

The Forest Service was funded for Fiscal Year (FY) 2010 by the Department of the Interior, Environment and Related Agencies Appropriations Act, signed into law on October 30, 2009, as Public Law 111-88.

This law provided the Forest Service with a Wildland Fire Management Appropriation totaling more than \$2.1 billion. In addition, the FY 2010 appropriations bill provided funding for the FLAME Wildfire Suppression Reserve Fund at \$413 million. The FLAME fund is intended to address the challenges of budgeting for fire suppression and to enable the agency to respond effectively during highly variable fire seasons. As a result of this funding and the reduced level of wildland fire activity, there was no need for the Forest Service to consider or request the transfer of other agency funds to wildland fire in FY 2010.

The total Wildland Fire Management Appropriations in FY 2010 totaled more than \$2.5 billion when including both the regular Wildland Fire Management appropriations, as well as the FLAME fund.

Graphic 1. Percent of FY 2010 Budget



The Wildland Fire Management Appropriation represented 47 percent of the Forest Service’s discretionary appropriations in FY 2010, up from 45 percent in FY 2009.

In FY 2011, Fire and Aviation Management will continue to aggressively pursue strategies to enhance efficiency and cost effectiveness including risk-informed allocation of preparedness resources, 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.

## Managing Fire Suppression Costs

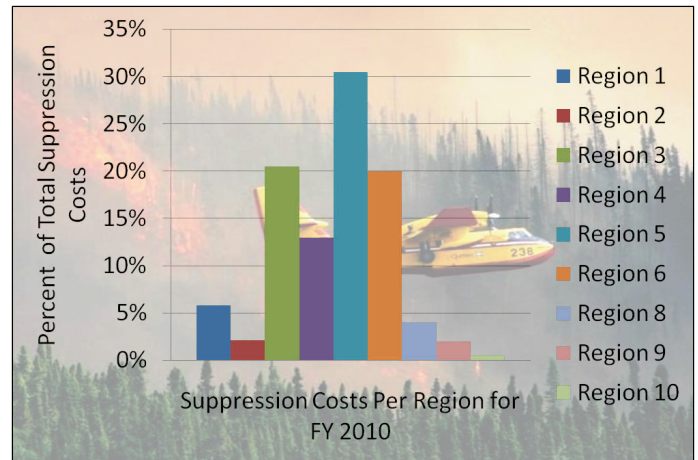
In FY 2010, the USDA Forest Service (Forest Service) reported 6,709 wildfires on national forests and grasslands across the United States. These fires resulted in approximately 318,897 acres burned with suppression expenditures reaching over \$899 Million. Although more acres burned in FY 2010 as compared to FY 2009, the overall numbers of fires reported decreased. 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. As such, the agency continued its efforts to manage costs.

In FY 2010, the agency expanded and continued to implement an aggressive hazardous fuels reduction program, accelerated the use of risk-informed fire management, expanded operation efficiencies and continued use of management controls. Specifically, Forest Service actions included:

- Focused hazardous fuels treatments in those areas closest to the wildlands—the wildland urban interface (WUI) areas, and in the fire-adapted ecosystems that presented the greatest opportunity for restoration.
- Expanded the use of the Wildland Fire Decision Support System (WFDSS) tools across the agency.
- Continued the use of science-based tools giving fire managers the capacity to deliver better results on all wildland fires, either planned or unplanned.
- Continued work with partners to build strong, cooperative frameworks that promoted safety, success and ecosystem health.
- Implemented revised guidelines to the Federal Wildland Fire Management Policy that promoted efficient, effective management of both planned and unplanned wildland fires.

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 \$899 million, the agency’s costs would have been much higher without these management controls. Agency actions resulted in significantly lower suppression expenditures than would have occurred under traditional strategies.

**Graph 2. Percent of Suppression Expenditures by Region for Fiscal Year 2010**



Forest Service wildfire activity in FY 2010 was the highest within Region 3—Arizona and Colorado. During this timeframe, 32 percent the agency’s total number of acres burned were accounted for across the national forests in Arizona and Colorado, although wildfire suppression expenditures in Region 3 consumed only 9 percent of the Forest Service’s reported wildfire suppression costs in FY 2010. In line with previous years, Region 5 California consumed the largest portion of suppression funds at nearly 13 percent.

Moderate activity in Region 5, California, and Region 6 the Pacific Northwest attributed to an overall decrease in suppression expenditures from previous years. The agency identified three fires in FY 2010 with federal expenditures over \$10 million. These fires accounted for over \$38.5 million of incident specific agency expenditures. Of the three fires, one occurred in California and two in Region 6. There were 129 Forest Service large fires (300 acres and greater) which averaged slightly over \$1.5 million each in FY 2010, down from over \$2 million in 2009, \$6 million in 2008, and approximately \$4 million each in previous years.

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## Part III. 2010 Major Accomplishments

Fire and Aviation Management (FAM) continues to steadfastly work toward accountability expectations as outlined by the Secretary of Agriculture, the Chief of the Forest Service, Office of Management and Budget (OMB), Government Accountability Office (GAO), the Office of the Inspector General (OIG), and other regulatory agencies to ensure programs across the board perform well and demonstrate measurable progress to enhance the management of programs.

This year, significant fiscal year 2010 Fire and Aviation Management accomplishments are outlined in this report and are tied not only to a goal from the Fire and Aviation Management Strategic Plan, but where relevant, they are likewise tied to the primary factors identified in the drafted report—*A National Cohesive Wildland Fire Management Strategy*. An account of the Fire and Aviation Management Performance Measures are also included.

### National Fire and Aviation Management Strategic Plan

Fire and Aviation Management (FAM) completed a draft of the National Fire and Aviation Management Strategic Plan in July 2008. The plan is tiered to the USDA Forest Service Strategic Plan, Fiscal Years 2007-2012, and is intended to provide specific, measurable goals, objectives and strategies for all FAM programs. The strategic plan incorporates the associated goals, objectives and strategies previously outlined in the Forest Service Aviation Strategic Plan and the Accountable Cost Management Strategy. The strategic plan encompasses 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 plan concentrates on FAM's quest for sound, cost-effective risk management practices that will lead to healthy fire-adapted landscapes.

Development of annual work plans continues and will guide all activities that support the FAM program. These operating plans, or work plans, will include critical support from interagency partners and the public.

The accomplishment portion of the FY 2010 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 accountability report lists each goal and its respective objective, followed by the significant accomplishments associated with each goal. In some cases, specific successes are recounted through success stories.

### The Drafted Report to Congress and A National Cohesive Wildland Fire Management Strategy

Wildland fire management across all lands and jurisdictions in the United States involves a complex matrix of fuel types, climate considerations, mission goals, policies, land and resource values, social concerns, and costs. None of these issues are new. However, because each of these elements — individually and collectively — is dynamic, the fire community is continually adapting and evolving to meet the challenges posed by wildland fire.

The past two decades have seen a rapid escalation of extreme fire behavior, increased risk to responders, home and property losses, higher costs, and increased threats to communities and landscapes. These trends call for a broad-based, collaborative and cohesive response to better address these mounting challenges. Congress, the fire community and the public have recognized a need for a new strategy, a new path forward, and perhaps a new way of thinking about wildland fire.



**Planned fire on the Black Hills National Forest**

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As is the nature of many evolutionary phases, this current effort has generated collaborative consideration and examination of wide-ranging but pertinent elements in creating a synergistic move forward.

This collaboratively developed report establishes a way forward. In responding to a request from Congress, the report addresses the seven primary elements facing fire and natural resource managers and the fire community at all levels, from local to national and from states to tribes:

- most cost-effective means for allocating budget resources;
- reinvest in non-fire programs;
- employ appropriate management response;
- allocation of hazardous fuel reduction funding based on priority projects;
- assessing the impacts of climate change on the frequency and severity of wildfire; and
- study the effects of invasive species on wildfire risk.

The drafted report, *A National Cohesive Wildland Fire Management Strategy*, presents a collaboratively designed approach to a national strategy. It adds to and builds upon the information presented in this report by clearly identifying the national challenges, guiding principles, goals and performance measures. It culminates in presenting a the strategy of how the national fire community will proceed, together, to implement the strategy.

Three primary factors have been identified as presenting both the greatest challenges and the greatest opportunities for making a positive difference in addressing wildland fire problems and costs. They are:

- **Restoring and maintaining resilient landscapes.** The strategy recognizes the current lack of health and the variability of this issue from geographic area to geographic area. Because landscape conditions and needs vary depending on local climate and fuel conditions, among other elements, the strategy will address landscapes on a regional — more localized — scale.
- **Creating fire-adapted communities.** The strategy will offer options and opportunities to engage communities and work with them to become more resistant to wildfire threats.
- **Wildfire response.** This element considers the full spectrum of fire management, from preparedness to full suppression to managing fire for multiple objectives. The strategy recognizes differences in missions among local, state, tribal and federal organizations and will offer collaboratively developed methodologies to move forward.



**Sunset over the planned (prescribed) fire in South Dakota**

Together, the Report to Congress and the National Cohesive Wildland Fire Management Strategy do not represent an end-point, but rather a beginning. There is a tremendous amount of work to be done, science to be considered and incorporated, and differences to be resolved. The direction is set and the wheels are in motion to address the significant issues that have increasingly plagued the fire community and the nation, as such FAM accomplishments relevant to these three primary factors are incorporated in the 2010 FAM Accountability Report.

The FAM Performance Measures include the following areas:

- Forest Service Strategic Plan
- Program Assessment
- 10-Year Comprehensive Strategy Implementation Plan (updated December 2006)
- Forest Service National Measures Set

and are included in the report.

Together, these documents address the elements requested by Congress and represent the next stage in an evolving world of wildland fire management with the goal of achieving safer, more efficient, cost-effective public and resource protection goals and more resilient landscapes.

## 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.

### National Cohesive Wildland Fire Management Strategy Goal—Primary Factor: Wildfire Response

All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions.

### A National Cohesive Wildland Fire Management Strategy

A primary goal established from the outset of the development of the report—*A National Cohesive Wildland Fire Strategy* (Cohesive Strategy) was that it be “science-based.” Specifically, this means that determinations of national and regional investments in fire management would be based on an analytical framework capable of comparing options in terms of levels of impacts on fire risk (hazard and expected value-change), both in programmatic and geospatial terms. The application of a risk framework is also essential to meet the expectations outlined in the FLAME Act that the Cohesive Strategy to address recommendations by the GAO that programmatic efforts:

- Systematically assess elements of wildfire risk across communities and landscapes,
- Provide metrics on the effectiveness of fuel management treatments,
- Allow for the comparison of cost effectiveness of fire management investments,
- Identify weights for the relative importance of other factors for fund allocation not unrelated to risk treatment effectiveness, and
- Establish a methodology for fund allocation that is based on appropriate criteria and applied consistently.

As part of the Cohesive Strategy Phase I effort, a parallel science effort was conducted engaging a panel of research scientists. The panel examined current data and modeling systems to including LANDFIRE, Fire Program Analysis (FPA), Regional Fire Risk and State Forest



**Beetle-killed trees across the mountain in Colorado**

Resource assessments and others to determine what information could be used as a foundation for current assessments and future projections. Using these system resources, the objective in this initial phase was to develop a first approximation of a national risk analysis that could refine alternatives, present a series of scenarios, future policy choices and assess tradeoffs among a portfolio of programmatic investments. This analysis was expected to assess specific funding levels and programmatic activities in support policies and goals for landscape restoration, fire adapted communities, and wildfire response.

A key criterion for the analytical framework was that the national analysis for various program investments be scalable to regional, state and field unit level use. Additionally, it was determined that there should be a qualitative dimension providing a social science.

The Science effort paralleling the development of the Cohesive Strategy has resulted in an extensive analysis that adequately demonstrates the viability of a risk analytical framework. Appendix A of the report, *A Comparative Risk Assessment Framework for Wildland Fire Management*, provides background and an outline of how the National Risk Assessment can be used to help guide the Cohesive Strategy. The complete Science Report will be made available soon.

This section of the cohesive strategy seeks to highlight the key points or findings from this report.

- Risk is measurable and can be expressed as the probability and magnitude of potential consequences.
- The stochastic nature of wildfire can be described probabilistically. Consequences—either positive or negative—can be quantified and combined with wildfire probabilities (extent and intensity) to generate a risk profile.
- Expected net value change (NVC) is a single measure that serves as an index of risk. In complex landscapes, using NVC simplifies calculations and provides a useful means of summarizing risk.
- A simple conceptual model of wildfire risk recognizes the principal contributing factors, consequences of wildfire, and management options designed to either change wildfire extent or intensity, or alter risk by reducing exposure.
- Comparative risk assessment extends the conventional model of risk assessment used by the EPA and others to include preferences, values, and tolerances to risk in order to identify preferred management options from a set of competing alternatives.

Ultimately, choosing among available options demands clarity in management objectives, and where multiple objectives are present, understanding management priorities. Identification and quantification of performance measures or assessment endpoints is a critical step in the analysis of risk and the monitoring and evaluation of management actions. The risk assessment framework promotes alignment of performance measures with goals and objectives, establishes benchmarks, and enables quantitative reporting of accomplishments and changes to the landscape. To be useful, performance measures need to be well-specified and measurable.

Formal methods of ranking and valuing preferences ensure a transparent and rational process of comparing alternatives. The comparative risk assessment process can be adapted for a wide range of spatial and temporal scales to best match the problems at hand, the information available, and the socioeconomic and ecological values involved.



**Smoke from the Sundance Prescribed Fire Black Hills National Forest South Dakota**

## **Fire Program Analysis, Improvement Process Year**

### **FPA Charter**

In October 2010, a new Fire Program Analysis (FPA) Charter was signed establishing a governing body, advisory teams which represent the five federal fire agencies/bureaus and the National Association of State Foresters (NASF) and defines pertinent roles and responsibilities. The FPA Charter represents a significant business transformation in wildland fire management budgeting policies and procedures that will require proactively change management actions. FPA will discuss potential budget and program strategies while considering trade-offs and consequences through an interactive process while engaging national and field offices. FPA will provide useful information that supports the formulation and allocation of wildland fire management budgets and programs across units and agency boundaries while providing opportunities to document and improve local and national performance. The Oversight Group will have a principle role in facilitating the success of the program, including its integration with other agency programs, identifying and addressing cultural changes and ensuring leadership engagement. There will be key linkages to other interagency objectives and efforts, such as the LANDFIRE, WFDSS, HFPAS, EMDS, and NFPORS.

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## FPA Governance

The primary governance components of the FPA Charter include:

- ◆ The Board of Directors (BOD) provides executive leadership and guidance for the OG and the program. This includes incorporating the program and its associated business processes into the agencies' planning and budget systems and procedures.
- ◆ An OG provides leadership and oversight for the FPA program and its continued development and implementation.
- ◆ An Executive Director will serve as a full-time senior administrator for the OG, working closely with FPA stakeholder groups to monitor FPA development and implementation issues. This position will keep the OG and FPA stakeholder groups informed of changes and progress.

## System Management

System Management will include:

- ◆ A Program Manager who will provide leadership and direct supervision for the ongoing operation, maintenance and development of the FPA program.
- ◆ Business Leads, one from the Department of the Interior and one from the USDA Forest Service, will provide a linkage between system operation and development and field implementation.
- ◆ System Operation and Maintenance will support system enhancements, routine program work and management of the system as identified in the programs' Enhancement, Operation and Maintenance Plan currently under development.
- ◆ Sponsorship and Funding is provided by the USDA Forest Service and the Department of the Interior. The USDA Forest Service is the managing partner and owner of the FPA program for the purpose of the Office of Management and Budget business cases and agency Information Technology oversight. The funding needs are shared equally.

## The Path Forward

The following milestones have been identified for the FY 2011 Improvement year:

- ◆ **March 2011:** The Support Working Team (SWT)

will provide to the Interagency Analysis Team (IAT) a level of validation for the FPA project.

- ◆ **April 2011:** Based on the feedback from the SWT, the IAT will provide a validation report to the OG.
- ◆ **June 2011:** The external technical (science) and business reviews will begin.

## Wildland Fire Decision Support System

Aggressive development and deployment of the Wildland Fire Decision Support System (WFDSS) tools continued in FY 2010. The system supported managers in making wildland fire decisions that ensured the safety of firefighters and the public, protected structures and natural resources, and efficiently used firefighting resources, thereby reducing costs and potential losses on complex wildland fires.

The WFDSS tools are an integral part of the management of wildfires on National Forest System lands. These tools, coupled with other emerging technology and a local knowledge base, help managers measure the probability of success and make well-informed decisions.

## Aerial Delivery of Fire Retardant

In 2000, the Forest Service and other firefighting agencies established guidance for retardant application as contained in, *Guidelines for Aerial Application of Fire Retardant and Foams in Aquatic Environments* (Guidelines). The guidelines were developed and implemented to mitigate the impact of aerial fire retardant application on aquatic species and aquatic habitat.



**In July 2010, the Court issued an adverse ruling on the adequacy of the EA for application of aerial fire retardant**

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In 2004, the Forest Service Employees for Environmental Ethics (FSEEE) filed a lawsuit charging the agency with failure to comply with the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA). The United States District Court for the District of Montana issued an October 24, 2005, decision citing failure to conduct an environmental analysis and to engage in formal consultation with regulatory agencies violated NEPA and ESA, respectively.

On February 27, 2008, the Court ruled that the Forest Service had complied with NEPA and ESA. On April 2, 2008, the new decision was challenged by FSEEE in Missoula's U.S. District Court and included in the new filing, listing both the USFWS and NMFS as co-defendants.

On July 27, 2010, the Court issued an adverse ruling on the adequacy of the EA for application of aerial fire retardant, finding:

- ◆ The plaintiff's assertion that all fire suppression actions, not only use of retardant, must be analyzed was denied by the court.
- ◆ Due to jeopardy findings of the ESA agencies, the use of reasonable and prudent alternatives does not alleviate the potential to cause harm to the environment. This will require the completion of an EIS.
- ◆ The ESA agencies are required to reanalyze their biological opinions to include more meaningful restrictions on the use of retardant than the existing guidelines.
- ◆ The ESA agencies are required to prepare incidental take statements.
- ◆ Consultation and completion of the EIS, including the Record of Decision, will be completed by December 31, 2011.
- ◆ Failure to comply could result in enjoining the continued use of aerially-applied fire retardant.

An EIS ID Team has been established and is preparing an alternative and a draft Biological Assessment, which will be presented to the ESA agencies for review prior to completing the Draft EIS.



**Smoke from Reservoir Road Fire seen from Fort Collins, Colorado**

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# Goal 1—Success Stories, Science and Technology

## Integrating Air Quality Tools into the Wildland Fire Decision Support System

*A new “one-stop shopping” air quality portal site is providing wildland fire decision makers with access to a variety of real-time and forecast air quality information.*

Smoke and air quality information has an important role in wildland fire decision making as is reinforced in the 2009 Implementation Guidance to the 1995 Federal Wildland Fire Management Policy. Fire and land managers wanting to incorporate air quality information need easy, fast and centralized access to the latest air quality tools. The Wildland Fire Decision Support System – Air Quality (WFDSS-AQ) portal is a stand-alone site that allows managers to quickly find the information of interest to them. WFDSS-AQ was an experimental product that is initially being tested during the 2010 western wildfire season, although the tools are applicable to prescribed fires and eastern wildland fires as well. The site is being continually updated with additional features and tools.

WFDSS-AQ can be accessed by clicking Fire Related Links > Weather Related Links > Air Quality within WFDSS. It can also be accessed by non-federal air quality agencies at <http://firesmoke.us>. A helpdesk is available at [wfdss-aq@gmail.com](mailto:wfdss-aq@gmail.com) / 347-766-5335 (347-SMOKE35).

Eight air quality tools of varying complexity have been incorporated into WFDSS-AQ so far, with additional tools being identified and under development. The current set of tools include:

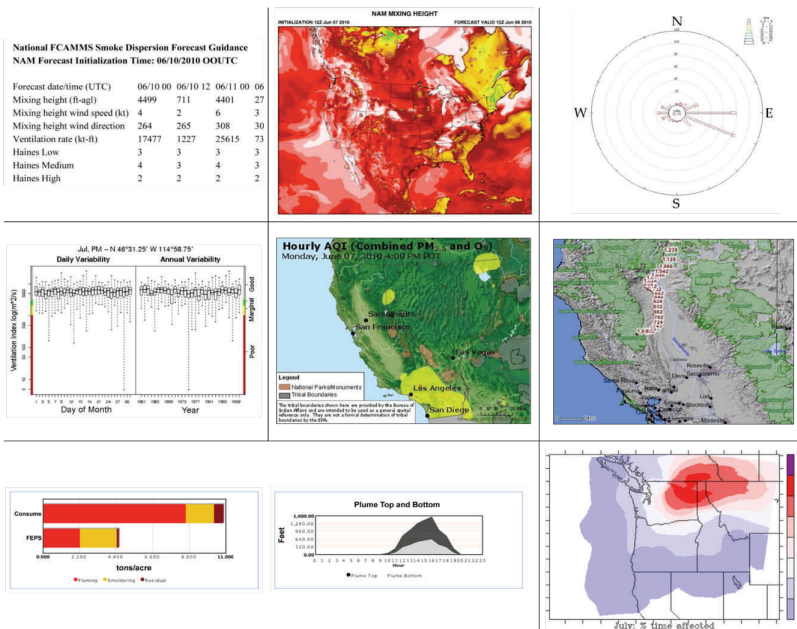
- Point forecast text summaries
- Regional and national maps
- Day and night wind roses
- Climatologically mixing heights
- Current air quality conditions
- Custom trajectory modeling
- Custom dispersion modeling
- Probabilistic smoke impacts based on climatological winds

Each tool link attempts to drill down to provide the user with regionalized, custom information in the fewest clicks.

Other features of the site include expanding online help and Frequently Asked Question (FAQ) pages, with online tutorials coming soon. Additionally, users are being asked for write-ups of decisions utilizing the tools so that users can benefit from real-world examples.

Feedback is encouraged, and the site will be modified in response to user comments and questions throughout the western fire season.

WFDSS-AQ development has been led by the USDA Forest Service Pacific Northwest Research Station AIR team in partnership with the Wildland Fire Management RD&A, the Desert Research Institute’s Program for Climate, Ecosystem, and Fire Applications (CEFA), and Sonoma Technology, Incorporated.



**Some of the different types of output available through the WFDSS-AQ portal tools (Upper-left: text point forecast table; upper-right: custom map and trajectory; lower-left: mixing height 7-day forecast; lower-right: smoke forecast from multiple fires)**

## 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.

### National Cohesive Wildland Fire Management Strategy Goal—Primary Factor: Wildfire Response

All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions.

## Wildland Fire Serious Accidents

The 2005 Accident Investigation Guide states, “A Forest Service serious accident is one that involves:

- a death;
- three or more persons hospitalized after treatment for reasons other than observation;
- wildland fire shelter deployments or entrapments;
- property damage, other than aircraft, that exceeds \$250,000; or
- damage to aircraft that exceeds \$1 million or results in total destruction of the aircraft.”

For this report, an accident is considered a “Forest Service accident” if it involved Forest Service personnel, regardless of location or jurisdiction, or if it happened, regardless of agency affiliation, on an incident under Forest Service jurisdiction.

### Fatalities

There were no Forest Service fatalities in ground fire operations in 2010, marking the second fiscal year in a row that a total of “zero fatalities” in ground fire operations was achieved. In FY 2010, there were no accidents that would be defined as “serious” according to the above criteria; but a number of accidents occurred, classified as “less than serious,” or as unintended outcomes that had significant potential to be much worse.

### Aviation

During FY 2010, there were no fire-related Forest Service aviation accidents. There were, however, a total of three fatalities in Forest Service aviation operations during a non-fire operation. The three aviation fatalities occurred when a Cessna T-210L performing a Forest Health Protection Sketch Mapping mission crashed prior to

Graph 3. Fatalities during Calendar Years 2006—2010



landing in Lock Haven, Pennsylvania. The aircraft burned on impact, and the three on board were fatally injured.

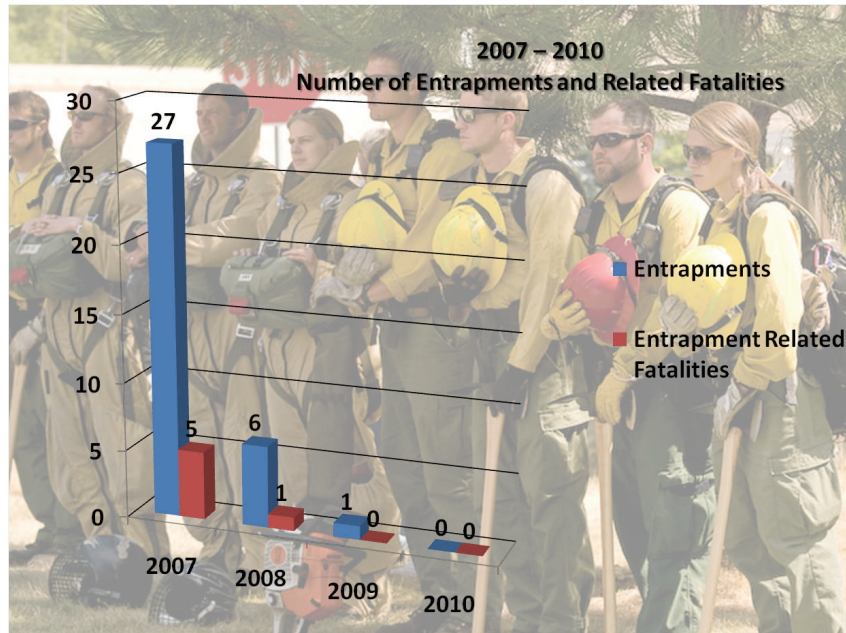
### Non-Fatal Aviation Accidents

A Lockheed P2V-5 performing retardant drops on a fire lost hydraulics and was unable to stop after a successful landing. The airtanker went through a fence and onto an adjacent road near the airport. No injuries were sustained.

### Entrapments

Number of Forest Service entrapments and entrapment-related fatalities continued to decline during FY 2010—a trend for the past 4 years. In FY 2007, the Forest Service had 27 people entrapped, with 5 entrapment-related fatalities on the Esperanza Fire. In FY 2008, the Forest Service had 6 people entrapped, with one fatality on the Panther Fire. In FY 2009, the Forest Service had one

**Graph 4. 2007—2010 Number of Entrapments and Related Fatalities**



person entrapped and no fatalities. In FY 2010, the Forest Service had no reported entrapments or shelter deployments.

### Hazard Trees

In FY 2010, there were a number of accidents involving hazard trees; but no fire-related fatalities involving Forest Service employees. Several of the hazard tree accidents that occurred resulted in personnel injuries such as fractured vertebrae, ribs and other bones. A number of injuries and near misses involving fire personnel occurred in hazard reduction operations where no fire was involved.

### Heavy Equipment Operation

There was a decrease in water tender and dozer accidents and near misses in FY 2010 compared to FY 2009 and FY 2008.

### Trend Analysis:

Nationwide for all agencies, wildland firefighter fatalities decreased significantly in calendar year 2010 from the number of fatalities reported for calendar year 2009. The following trends were identified for the past five years:

- Aviation continues to be the single largest cause of wildland firefighter fatalities for the Forest Service, accounting for 20 of 32 fatalities during a 5-year time period of time (62.5 percent). During the same time period, the second-largest cause of fatalities was burnovers, accounting for 22 percent of the total. Together, these two causes of fatalities accounted for 84.5 percent of wildland firefighter deaths under Forest Service

jurisdiction for the period of FY 2006-2010.

- Single, multiple fatality Forest Service accidents over the five-year period is noteworthy. Three multiple fatality accidents accounted for a total of 18 fatalities or 56% of the total. These accidents were the Esperanza Fire (5 deaths in a burnover), the Krassel Fire (4 deaths in a helicopter crash), and Iron 44 Fire (9 deaths in a helicopter crash).
- Fatalities occurring under Forest Service jurisdiction accounted for a high of 54 percent in 2006 to a low of zero percent this fiscal year, 2010, of the total of all wildland firefighter fatalities during the five-year period. Inclusive, Forest Service wildland firefighter fatalities amounted to 29% of the total of all wildland firefighter fatalities in the United States during the same five-year period of time.
- The chart below shows that generally speaking, when there are more wildland firefighter fatalities in a year there also tend to be more Forest Service fatalities. Also demonstrated is that there is no consistent correlation between acreage burned and the total number of wildland firefighter fatalities.
- The number of entrapments remained low in 2010, which has been the case for the past three years. It is impossible to pinpoint the cause or causes, although it may simply be that fewer firefighters were exposed to extreme fire behavior in 2008, 2009 and 2010 than in 2006 and 2007.
- The Forest Service fire program has not had a Line of Duty death as result of a heart attack since 2004;

**Table 1. Nationwide for all agencies showed a significant decrease in fatalities from 2009 to 2010**

Calendar Year	Fatalities (All Agencies)	Forest Service (FS) Fatalities	FS Accidents by Type	Service Employee Fatalities	Contractor Fatalities	Cooperator Fatalities
2006	24	13	Aviation: 6 Burnover: 6 Fall: 1	9	3	1
2007	9	3	Aviation: 1 Driving: 2	2	1	0
2008	25	12	Aviation: 9 Burnover: 1 Hazard Tree: 1 Heavy Equipment: 1	1	9	2
2009	15	4	Aviation: 4	1	3	0
2010	6	0	N/A	0	0	0
5-Year Total	79	32	Aviation: 20 Burnover: 07 Fall: 01 Driving: 02 Hazard Tree: 01 Heavy Equipment: 01	13	16	3

and may be attributed to three things:

1. the implementation of a health Screening via the Health Screening Questionnaire prior to taking the Work Capacity Test;
2. an emphasis on physical fitness via wellness programs and physical training; and
3. the implementation of the Medical Standards Program.

This finding is in contrast to structural firefighters where heart attacks are the single largest cause of firefighter deaths. It should be noted, however, that in FY 2010, one administratively determined (AD) hired Forest Service employee suffered a non-fatal heart attack while taking the Work Capacity Test.

### Forest Service Approves National Aviation and Safety Management Plan

During FY 2010, the Forest Service National Aviation Management and Safety Plan (NAMSP) was approved.

The NAMSP documents Fire and Aviation Management (FAM) leaders' intent and describes authorities, roles and responsibilities, programs, and activities. The NAMSP provides strategic and operational direction and guidance to each organizational level. Individual regions and units may supplement the NAMSP when necessary. The NAMSP is supplemental to policy and does not replace either the Forest Service Manual 5700 or the Forest Service Handbook 5709.16.

### Continuous Improvement Process

Over the past several years, the fire environment has dramatically changed. The largest fires have become increasingly more complex and dangerous. There was a clear need for the development of a complex fire management model to both improve risk management and enhance accountability for fire-related expenditures and resources committed. The model, created in 2009 by the National Incident Management Organization (NIMO), was dynamic, adaptive and referred to as "Continuous Improvement in Decision Making for Large Fire Management," or CI.

To implement CI, four NIMO teams were assigned to assist 30 national forests within five Geographic Areas who were mostly likely to experience dangerous, large, costly fires referred to as "fires of national significance." The CI model focuses on a three-phase approach—preseason engagement and discussion; during fire implementation; and post fire season follow-up to determine what should be adjusted.

During FY 2010, the first phase of the CI approach was a series of pre-season sessions which were held with national forest units; federal, state and local partners; community leaders and incident management teams to develop and share strategies for how large and long duration incidents can be more effectively managed. The goals of these collaborative sessions were to develop strategies that:

- reduce risk and exposure to firefighters and the

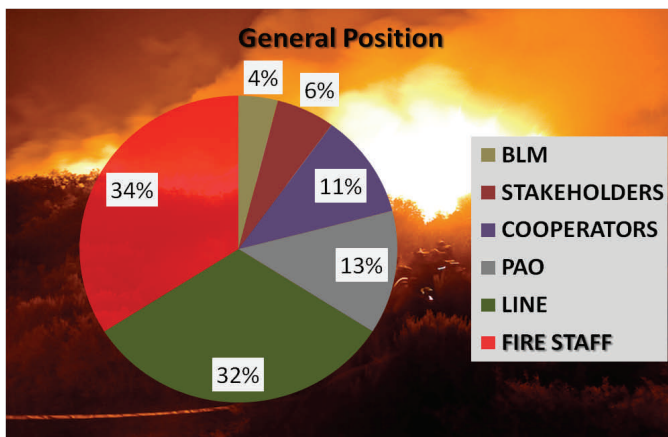
- public;
- sustain the health, diversity and productivity of the nation’s forests and grasslands;
- collaborate with communities, partners and stakeholders; and
- complete focused, deliberate risk informed actions.

This was done by providing locally focused simulations for fire managers, agency administrators and surrounding neighbors using Google Earth as a platform to display information geospatially. The sessions were designed to discuss methods for managing wildfires including Risk Management and Strategic Risk Assessments, and the use of advanced technology to generate a Common Operating Picture. These sessions allowed for discussions regarding likely actions fire managers might take, compromises that could be made over multiple jurisdictions, and prioritization of values at risk vs. opportunities for success — all of which are needed to prepare for such an event.

Though this was a low to moderate fire year, several of the forests who participated in the preseason CI work had an opportunity to participate in the second phase of the model by implementing the concepts during actual fire events. On each forest where CI methods were tested, the agency administrator felt there was more accountability and empowerment; local communities felt better informed; and there appeared to be more transparent “communication” at all levels of the organization.

As a follow-up in the third phase during FY 2010, the Wildland Fire Lessons Learned Center and FAM conducted a qualitative evaluation of the CI model.

**Graph 5. Continuous Improvement (CI) Process Interviews**



**One hundred forty-two (142) individuals from 30 high-risk forests and regional offices participated in CI interviews**

The purpose of this evaluation was to:

1. identify actions to complete prior to and during the fire season to achieve the CI program’s objectives, and
2. identify how the CI program achieves the goals and objectives set forth to improve decision-making.

One hundred forty-two (142) individuals from 30 high-risk forests and respective regional offices participated in a 10-question survey and 30-minute interview about the CI program and its use on their forest. This information was aggregated and analyzed for themes by region, forest, job position and in total.

Overall, most found the program, with a few modifications, to be beneficial internally. Most external partners seemed pleased with the increased communication and engagement.

Based on the evaluation results, modifications to 2011’s delivery have been made to better meet the agency needs and improve effectiveness and efficiency in decision making.

### National Rappel Program

During FY 2010, the Pacific Northwest Region’s (PNW) rappel program was used to staff 86 fires, 23 of those fires on one national forest. There were no lost time accidents—the PNW rappel program for FY 2010 was considered successful and safe. Therefore, in late June 2010, the PNW requested reactivation of their National Rappel Program. After evaluation and recommendation from the National Rappel Quality Assurance Team, FAM Director Tom Harbour approved the reactivation of the program on July 9, 2010.

An After Action Review (AAR) with the PNW will be completed prior early in FY 2011. During the review the FY 2010 season will be reviewed operationally considering program objectives, quality assurance processes, SAFECOMs, lessons learned and rappel operations.

The process to reactivate other rappel programs will require a coordinated regional and national effort to prepare for the 2011 fire season. The results of the National Rappel Programmatic and Needs Assessment Review will support planning and reactivation of the other rappel programs. Preliminary results will be available by December 31, 2010. The review will examine a number of programmatic issues including but not limited to:

- ◆ evaluate the optimum number of rappel programs;



**Pacific Northwest Region  
reactivated in July 2010 after  
completion of After Action**

- ◆ staffing, base numbers, and locations;
- ◆ additional standardization areas; and
- ◆ potential types of standardized aircraft.

The documents used as a basis to reinstate the rappel program and the quality assurance documents used in the PNW are available on the web at [www.fs.fed.us/fire/av\\_safety/assurance](http://www.fs.fed.us/fire/av_safety/assurance). The link also contains the *National Rappel Program Reactivation Process Plan* with an outline and direction to begin the process to reactivate a rappel program.

The successes of the PNW rappel season, and the established quality assurance process to reactivate additional rappel programs demonstrate the viability and need for this program as a fire suppression tool. The Forest Service is committed to managing the risk and ensuring the safety of our employees during rappel training and operations.

**Policy Change for Instrument Flight  
Conditions and Night Flying**

Previous Forest Service policy prohibited single-engine flight in Instrument Meteorological Conditions (IMC) and at night except for ferry and cargo-carrying flights. Improved technology, however, has made it possible for

single-engine turbine airplanes and helicopters to safely fly in IMC and at night as multi-engine aircraft when properly equipped.

As of October 13, 2010, Forest Service policies were revised to address flights in IMC and night flights. Current requirements for all pilots flying Forest Service missions are as follows:

- ◆ Instrument Flight Conditions. Use only multi-engine or turbine-powered single-engine aircraft for flights in Instrument Meteorological Conditions (IMC) that meet the applicable Instrument Flight Rules (IFR) requirements in Federal Aviation Regulations (FAR) Part 135, Part 91 and Part 61 as referenced in Forest Service Handbook 5709.16 or applicable contracts.

Low-level (Forest Service Manual 5716.3) fixed-wing flight operations will be conducted only in daylight Visual Flight Rules (VFR) conditions (30 minutes prior to official sunrise until 30 minutes after official sunset).

- ◆ Forest Service Manual 5716.2 - Night Flying. Use only multi-engine or turbine-powered single-engine aircraft for night flights that meet the applicable requirements in FAR Part 91 and Part 61 as referenced in Forest Service Handbook 5709.16 or applicable contracts.

Pilots flying night missions shall land at airports or heliports that meet Federal Aviation Administration (FAA) lighting standards, except:

- This restriction does not apply to helicopter flights utilizing Night Vision Goggles (NVG).
- Low-level helicopter flight operations will only be conducted using Night Vision Goggles (NVG). Helicopters will be approved for such an operation.

While the Forest Service does not have helicopters equipped to fly at night, cooperator helicopters can accomplish night flying operations on Forest Service protected land under mutual aid agreements or if the agency is under unified incident command. Cooperator aircraft for night flights can also be hired through “assistance by hire” arrangements for areas outside the mutual threat zone. These flights are permitted as long as they are conducted safely and meet agency and FAA regulations.

Reciprocating engine powered single-engine aircraft flights at night are authorized only for ferry and cargo-carrying missions at pilot-in-command discretion and in accordance with FAR Part 91.

Low-level (Forest Service Manual 5716.3) fixed-wing

flight operations will be conducted only in daylight VFR conditions (30 minutes prior to official sunrise until 30 minutes after official sunset).

### Working Capital Fund User Guide

The Code of Federal Regulations (41CFR 102-33) requires the Forest Service maintain an aircraft management program that is financially sustainable. All Forest Service owned and operated aircraft must be managed through the Working Capital Fund (WCF) program. Aircraft that are not safe and financially sustainable shall be disposed of and other procurement options exercised to maintain the required aviation resources to meet the Forest Service mission.

The Albuquerque Service Center (ASC) Budget and Finance, WCF Branch provides financial direction, monitoring and oversight in collaboration with Forest Service FAM.

It is the responsibility of the user unit to follow the direction provided in the WCF User Guide and to ensure all items and/or services being procured or incurred are charged to the properly so accurate costs are reflected in the Equipment Management Information System (EMIS).

The WCF User Guide is available on ASC’s website at <http://fsweb.asc.fs.fed.us/bfm/programs/financial-operations/property-wcf/wcf/aircraft-policies-procedures.php> and the FAM website at [www.fs.fed.us/fire/aviation/](http://www.fs.fed.us/fire/aviation/).

### Fire Prevention

Although most of the 2010 wildfire activity was relatively quiet compared to the previous ten years, human-caused fires were in the news. An abandoned campfire burned



**Forest Service owned and operated aircraft is managed through the WCF program to ensure financial sustainability**



**New Disney PSA targets young children**

15,000 acres in Arizona; an escaped debris burn and sparks from a back yard fire pit caused numerous people to be evacuated in Colorado; even the big island of Hawaii had a 1,300 acre wildfire believed started by an arsonist. Vigilance is needed even in mild years.

The “Get Your Smokey On” campaign continued to encourage young urban and suburban adults to develop fire safe habits and to intervene when they see someone in danger of starting a wildfire. New public service ads (PSAs) were developed about legally and responsibly burning yard debris. Escaped debris burns are a major cause of wildfires throughout the United States.

Through our partner the Ad Council, the Disney Corporation released new wildfire prevention PSAs featuring Bambi during Fire Prevention Week. These PSAs are targeted to the young and young at heart.

During calendar year (CY) 2009, the Smokey Bear wildfire prevention campaign received more than \$54 million dollars in donated advertising and more than \$21 million dollars in the first half of 2010. All media time and space are donated.

While the new Disney PSAs directly targeted elementary school children, Smokey Bear continued to encourage young adults to be proactive in preventing wildfires through his social media channels on Facebook, MySpace,



**“Smokey Wraps” provide an opportunity to share fire prevention messages on the go**

Twitter and YouTube and through a series of online games and widgets featured on the sites:

Facebook (25,000 fans!): [www.facebook.com/smokeybear](http://www.facebook.com/smokeybear)

MySpace: [www.myspace.com/wildfireprevention](http://www.myspace.com/wildfireprevention)

Twitter (3,000 followers): [www.twitter.com/smokey\\_bear](http://www.twitter.com/smokey_bear)

YouTube (about 1500 views per week): [www.youtube.com/smokeybear](http://www.youtube.com/smokeybear)

Mobile: [www.smokeybearmobile.com](http://www.smokeybearmobile.com)

“A Day in the Forest with Smokey Bear” premiered in July 2010 to introduce Smokey Bear and wildfire prevention rules to kindergarten through second grade students. This 6-minute animated DVD was developed in partnership with the Ad Council and provides information in English, Spanish and through closed captioning, with additional wildfire-related teaching materials.

**International Fire Programs**

Through International Fire Program and the United States Agency for International Development, Fire Prevention and Education Teams were sent to Tanzania and Guyana. Team members worked with local officials to develop wildfire prevention management plans, public service ads and educational materials.

**All-Hazard Support to the National Response Framework**

The *National Response Framework* (NRF) details how the nation conducts all-hazard 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 and non-governmental organizations with 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 from surrounding communities, then assistance from the state. The state, if overwhelmed, can request assistance from neighboring states or from the federal government. For most non-fire incidents, requests for federal assistance are coordinated through the Federal Emergency Management Agency (FEMA). Using the principles of the NRF, requests for federal assistance for oil spills and other hazardous substance releases are coordinated through the United States Coast Guard or the Environmental Protection Agency (EPA) under the National Oil and Hazardous Substance Pollution Contingency Plan.

There are 15 Emergency Support Functions (ESFs) identified in the NRF to provide resource support to FEMA or the affected state or states. 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 12 of the remaining 14 ESFs.

FAM serves as the National ESF4 Coordinator. In this role, the Forest Service has worked with FEMA and other federal agencies on numerous national-level planning efforts:

- Federal Interagency Response Plan (Hurricane response)
- Federal Interagency Response Plan (Earthquake response)
- Improvised Nuclear Device Concept of Operations Plan
- Medical Countermeasures Management Plan (Anthrax response)
- New Madrid Earthquake Plan
- Whole-of-Community Catastrophic Incident Plan

The Forest Service, in the ESF4 role, participated in the planning for and conduct of several national-level



exercises during FY 2010:

- National Level Exercise 2010 – Improvised Nuclear Device exercise
- Eagle Horizon Exercise – National level Continuity of Operations exercise
- FEMA Hurricane Tabletop Exercise
- Anthrax Response Exercise Series
- National Level Exercise 2011 – New Madrid Earthquake exercise

Federal disaster response was fairly active during FY 2010 at both the national and regional levels. A few highlights of the Forest Service’s support to FEMA, other Federal agencies, and State/local agencies during fiscal year 2010 included:

### **Support under the National Response Framework**

#### **Arizona Winter Storms**

A series of major winter storms swept through Arizona in January 2010 creating heavy snow accumulations in the northeast part of the state which blocked access routes to and from areas, stranding many people, without the means to provide the basic necessities of life. Following a FEMA emergency declaration on January 24, 2010, Forest Service equipment and personnel worked in coordination with the Arizona State Type 2 Incident Management Team (IMT) to supply food, water, charcoal and fuel wood to residents most affected in the aftermath of this weather event. Forest Service equipment including dozers and snowmobiles were used to clear roads and ferry supplies to residents in areas that were inaccessible.

#### **North Dakota Flooding**

Spring flooding occurred along the Red River Basin in North Dakota and Minnesota for the second year. The Forest Service, through ESF4, provided FEMA and North Dakota with communications equipment and personnel to assist with the “flood fight” and subsequent evacuations.

#### **Hurricane Earl**

Hurricane Earl formed in late August and threatened the entire East Coast of the United States for several days into early September. The Forest Service staffed the ESF4 desk in two FEMA regions and maintained close contact with FEMA in two other regions throughout the event. The Forest Service also provided both ESF4 and aviation coordination personnel for FEMA Headquarters. In New England, the Forest Service mobilized an IMT and two saw crews to provide emergency road clearing which enabled local emergency responders to perform search and rescue, as necessary.



**Forest Service Tractor Trailer carries supplies for delivery during the winter storms in Arizona**

### **Other support to State and local agencies**

#### **Arkansas Flash Flood**

On the evening of June 10 and early morning of June 11, 2010, a flash flood event occurred on the Caddo-Womble Ranger District of the Ouachita National Forest. This flooding resulted in 20 fatalities and caused damage to the Albert Pike Campground. Local Forest Service personnel and local responders were supported by a NIMO team and other resources in the search and rescue effort.



**Forest Service mobilized an incident management team and two saw crews to provide emergency road clearing and enable local emergency responders to perform search and rescue**

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## NYC Tornado

Severe storms and tornados rampaged through New York City on September 16, 2010. The damage was extensive. A 20-person Forest Service Hotshot Crew from the Cherokee National Forest responded to assist New York City with removal of fallen trees and limbs from trails and public areas in the 235-acre Kissena Park in Queens and the 585-acre Prospect Park in Brooklyn.

## Support under the National Oil and Hazardous Substance Pollution Contingency Plan

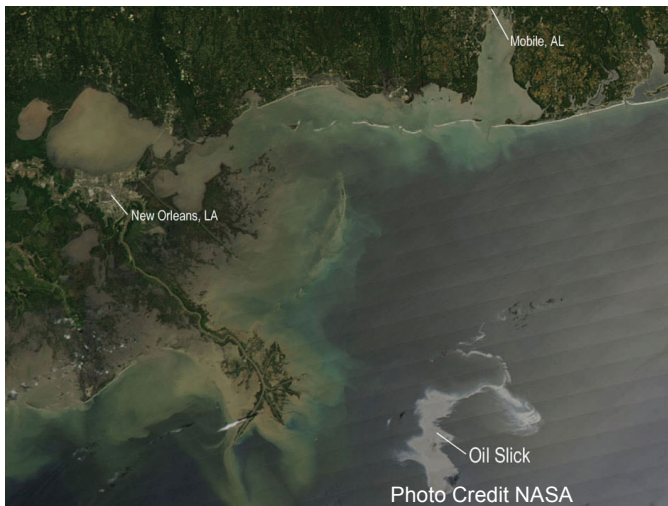
### Deepwater Horizon Oil Spill

FAM was the Forest Service lead and Departmental point-of-contact for all agency coordination and related support to the United States Coast Guard, United States Fish and Wildlife Service, and other entities in response to the Deepwater Horizon Oil spill. FAM established the Forest Service Deepwater Event Coordination Plan, led all Forest Service activities related to the incident, and provided nearly 100 employees over the course of the incident to support the response in the functional areas of biology, archeology, finance, purchasing, supply, helicopter operations, dispatch and resource management.



**Interagency Hot Shot Crew works to clear debris after tornado in New York City**

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**Nearly 100 employees provided support to the DOI during the Deepwater Horizon Oil Spill response**

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## Goal 2—Success Story, Protection and Management

### Forest Service Personnel Assist in Rescue Operation

During an intense Santa Ana wind event in southern California, a vehicle holding a mother and her three small children left the road and crashed in San Bernardino County. Bystanders to the crash reported the accident to fire personnel on the San Bernardino National Forest who responded providing scene stabilization, administered first aide, and support local fire rescue personnel with the extraction and further patient care until ambulances arrived.

All victims were transported to the local hospital and fortunately received only minor injuries.



**During intense Santa Ana wind event, San Bernardino National Forest fire personnel respond to accident until local fire rescue personnel arrive**

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### 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 ecosystems 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.

#### National Cohesive Wildland Fire Management Strategy Goal—Primary Factor: Restore and Maintain Resilient Landscapes

*Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.*

### Hazardous Fuels Accomplishments

The task of improving the state of vegetation conditions (fuels) and ecological restoration is a overwhelming task. The rate at which development is happening in the wildland urban interface, coupled with climatic and ecological changes, continue to make wildland fire management more complex, demanding and expensive. As communities and resources are best protected from wildfires by reducing the accumulation of dense vegetation before unplanned ignitions start, the need is urgent.

The agency continues to collaboratively address this dilemma through vigorous management, program alignment, and resource leveraging. In addition to the integrated efforts within the Forest Service, the hazardous fuels reduction program works with outside partners to address the wildland fire threats on other Federal, State, and private lands. The agency makes efficient use of its authorities to conduct fuel treatments on adjacent non-Federal lands, partner with local communities in the development of CWPPs, coordinate fuel treatment programs with Department of the Interior agencies, and conduct treatments on NFS lands in cooperation with non-governmental organizations.

The moderate wildfire season, good weather, and the efficient use of resources during FY 2010 afforded fire managers the ability to make exceptional progress toward fuel treatment accomplishments. In fact, the Forest Service exceeded its target by 42 percent during



#### **Hazardous fuels are reduced during a planned fire on the Black Hills National Forest**

FY2010—improving conditions on over 3.2 million acres across the United States. Notable is that this work was accomplished while concurrently accomplishing Forest Service American Recovery and Reinvestment Act (ARRA) goals as well.

The Forest Service prioritized work toward the reduction of vegetation adjacent to communities. This has been the case since the National Fire Plan was established in FY 2001. Since that time, 61 percent of hazardous fuel accomplishments have occurred in the Wildland Urban Interface (WUI) totaling nearly 15 million acres.

**Table 2. Hazardous Fuels Reduction Accomplishments, FY 2002—2010**

Accomplishments	2002	2003	2004	2005	2006	2007	2008	2009	2010
Acres Treated Hazardous Fuels	1,258,000	1,453,000	2,561,000	2,722,000	2,547,000	3,027,000	3,038,000	3,598,000	3,262,000
WUI Acres	764,000	1,114,000	1,700,000	1,658,000	1,590,000	1,654,000	1,941,000	2,190,000	1,965,000
Non-WUI Acres	494,000	339,000	861,000	1,064,000	957,000	1,373,000	1,097,000	1,408,000	1,297,000

\*Table statistics are rounded to the nearest thousand

### Fuel Treatment Effectiveness Program

In FY 2010, the Forest Service continued to implement a program to evaluate the effectiveness of fuel treatments when they are tested by wildfires. As a result, when a wildfire starts or burns into a previous fuel treatment, an assessment is conducted by fire management specialists. The review’s purpose is to determine:

- if the fuel treatment either affected fire behavior by reducing the intensity and/or rate of spread; or
- if suppression effectiveness was improved through enhanced firefighter safety, reduced suppression costs, and/or reduced potential fire damage.

Approximately one thousand assessments have been completed, and data has shown that treatments are effective in reducing both the cost and damage of individual wildfires which start in or burn into previous projects completed to reduce the density of the vegetation in those areas.

### Hazardous Fuels Prioritization and Allocation System

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

Both the Forest Service and the Department of the Interior (DOI) use the Hazardous Fuels Allocation and Prioritization System (HFPAS) in their respective hazardous fuels reduction programs. Nationally, consistent geospatial information is modeled to prioritize areas for hazardous fuels funding.

The following three decision criteria determine the priorities:

- ◆ Wildfire Potential — based, in part, on the Large Fire Simulator from the Fire Program Analysis (FPA) system, Wildfire Potential considers fuel

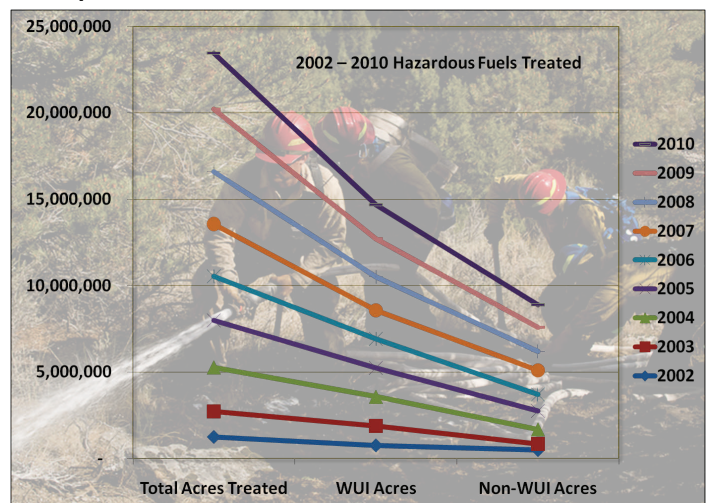
conditions, weather, topography, and historic fire patterns.

- ◆ Negative Consequences — based on Wildland Urban Interface, Ecosystem Vulnerability, air quality, and municipal water supply.
- ◆ Performance — based on a unit’s proven ability to accomplish targets and coordinate with partners.

The HFPAS uses decision support software, called Ecosystem Management Decision Support (EMDS), to identify high priority areas. Additionally the HFPAS includes opportunities to consider program stability and to make adjustments that incorporate management considerations into the results, based on factors not adequately covered by the EMDS model or elsewhere in the HFPAS.

Through annual program direction the Washington Office directs the regions to use EMDS, with finer scale data, to prioritize areas. The annual program direction also includes focus topics for priority projects. The Regions provide priority areas and project direction to the units. The units select the highest priority projects in the high priority areas. This three level process is similar to the cohesive strategy, using available data at the level where most accurate.

**Graph 6. 2002—2010 Hazardous Fuels Treated**



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

### American Reinvestment and Recovery Act Success Story

#### *Funding Helps Reduce Hazardous Fuels Northeast of Idaho City*



**Stewardship Project was funded, in part, with \$2.3 million from ARRA funding**

The Mores South Helicopter Stewardship Project, funded in part by \$2.3 million from the American Reinvestment and Recovery Act (ARRA), provided multiple benefits to the community of Idaho City, Idaho, and the Boise National Forest. Not only did the project bring in an influx of business, but it put smiles on the faces of the locals, as they interacted with the loggers and watched the log trucks drive down the highway through the canyon.

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***“This was a very valuable project. It allowed us to keep our employees working over the winter. We also had very positive feedback from the Idaho City community.”—Mike Moore, Director of Forest Operations, Columbia Helicopters***

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The goal of the project was to reduce hazardous fuels on the National Forest System lands northeast of Idaho City and adjacent to private lands and residences along the State Highway 21 corridor. Treatment methods included commercial thinning, reducing slash, and helicopter yarding and decking.

Oregon based Columbia Helicopters was awarded the contract. They used several local sub-contractors to complete road work and helicopter landing construction. The company also hired many truckers to haul the logs out of Idaho City to the saw mills.

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***“The project stimulated the local economy because workers ate at the restaurants, filled up their trucks at the gas station and stayed at the lodging facilities. This Recovery Act project was beneficial to the whole community. Idaho City benefited immensely.”—Trudy Jackson, Owner, Trudy’s Kitchen and RV/Cabins, Idaho City***

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Mike Moore, Director of Forest Operations for Columbia Helicopters said the project was a success for his company and the community. This was a very valuable project. It allowed us to keep our employees working over the winter,” said Moore. “We also had very positive feedback from the Idaho City community. The community appreciated our employees being very professional and welcomed their support to the local community,” he added.

Trudy Jackson, owner of Trudy’s Kitchen and RV/Cabins in Idaho City said, “The project stimulated the local economy because workers ate at the restaurants, filled up their trucks at the gas station and stayed at the lodging facilities. This recovery act project was beneficial to the whole community. Idaho City benefited immensely.”

Boise County Commissioner Terry Day echoed Trudy’s thoughts and said the community is no stranger to forest management. He added his appreciation to the contractor and the Forest Service for emphasizing public safety during the project.

“The citizens up here know the importance of timber harvest, timber dollars and fire mitigation. I’ve been through the project a few times, and it is well posted with public safety as the priority,” said Day. “It’s good to see logs being transported out of Boise County.”

## Hazardous Fuels and Restoration Success Story

### ***Strong Partnerships and Good Communication Lead to Success***

The lightning caused Bull Fire began on July 21, 2010, in the Gros Ventre Wilderness on the Bridger-Teton National Forest. The fire was discovered by an aerial detection flight two days later and was two acres in size and actively burning in subalpine fir. The fire was well within the wilderness area, and there were no immediate protection threats. The decision was made to manage the fire to meet land management objectives and was assigned to a Type 4 Incident Commander (IC). The primary objective was to monitor the fire's progress toward identified management action points. The fire grew to 58 acres by nightfall, and it was apparent at that point that this fire would be managed for a long duration. As of October 6, 2010, the fire was 5,273 acres.

The first evening, the line officer developed a thorough risk decision framework considering the unique challenges posed by this fire. In brief the challenges included:

- smoke issues related to a nearby busy highway corridor, residences and businesses;
- several power lines adjacent to the fire;
- a natural gas pipeline along the Hoback Canyon Highway;
- outfitter camps and very popular hunting areas; and
- the expected long duration of the fire

Political concerns relative to the fire related to smoke and hunting access. Smoke complaints were more of a concern to the neighbors downwind of the fire, including the town of Dubois, Wyoming. Locally, smoke complaints were minimal and were generated by neighbors in the nearby drainages. Hunting access concerns were managed by revising the area closure in relation to current and expected fire behavior. Proactive work to reduce, expand and terminate closures relative to fire potential and related hazards was successful. The drawback to this management strategy included the work volume it created for the information personnel to ensure the numerous changes to the closure area were kept up to date and disseminated in a timely manner to interested stakeholders.

A comprehensive risk assessment was prepared and was taken into consideration with every decision made on this fire. There was clear leader's intent shared from the top to bottom in the organizations that have managed the Bull Fire.



### **Burnout operation was conducted to keep the fire from adversely impacting values at risk**

The size and complexity of the organization changed as conditions warranted to ensure the fire did not negatively impact the identified values at risk.

A burnout was conducted as conditions allowed/warranted on the south flank of the fire utilizing primarily natural barriers to keep the fire from impacting those values and to stay ahead of the current and predicted fire potential. Otherwise, on the Bull Fire the objective was monitoring and information sharing.

As conditions changed over the course of the summer and into the fall, objectives and tactics were reevaluated and discussed in depth to ensure the safest effective approach was being taken.

### **Lessons Learned from the Bull Fire**

- Strong partnerships with WY Game and Fish, State and County fire departments, WYDOT and State Highway, and other stakeholders was critical to the success of this fire.
- Timely, accurate communication with all stakeholders was crucial to success fire management.
- Including State and County fire personnel on local Type 3 teams helped build strong relationships and understanding of management of fires on public land.
- Having a strong public information and education program is essential.
- It was beneficial to have the WFDSS information preloaded and ready to use.
- Using the established local Type 3 Team allowed for quick ramp up and down as conditions warranted and was very effective.

## Fuel Treatment Effectiveness Program Success Story

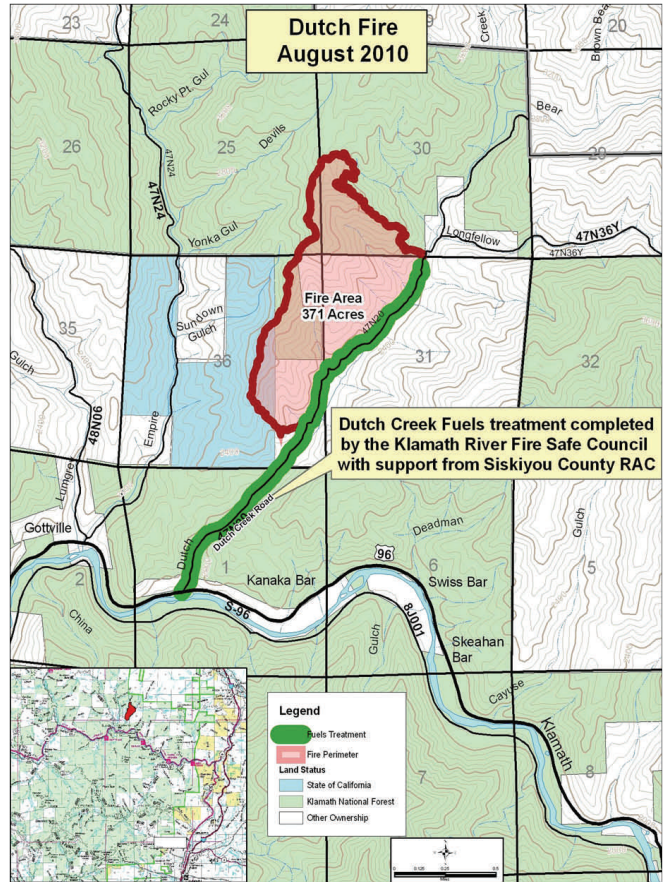
### *Dutch Creek Fuels Reduction Project Performs as Designed*

Some folks might say that the community of Dutch Creek was lucky when the rapidly moving Dutch Fire started on August of 2010. There were no structures were lost and no injuries incurred as a result of the wildfire. That “luck,” however, was due in a large part to the advanced planning and implementation of the Dutch Creek Fuels Reduction Project completed in 2006.

In 2006, the Klamath River Fire Safe Council, with financial support from the USDA Forest Service and Resource Advisory Committee (RAC) funds, completed the fuels reduction project that successfully reduced the severity of the wildfire. A total of \$78,550 was spent on the project and was a mix of federal dollars and in-kind contributed labor funds from the Klamath River Fire Safe Council.

The human-caused Dutch Fire started directly behind one residence and quickly burned uphill in an untreated, overly dense stand of brush, grass and trees. By August 8, 2010, the fire burned 371 acres of National Forest Systems, state of California and private lands, costing over \$3 million.

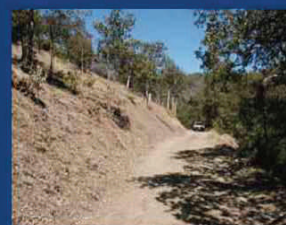
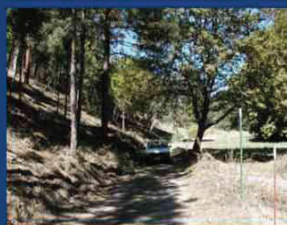
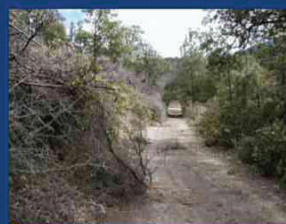
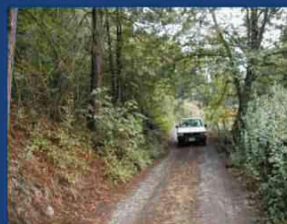
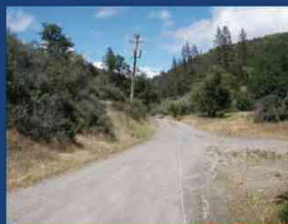
As alarming as those fact are, it could have been a very different outcome had the Dutch Creek Fuels Reduction Project not been completed. The acres and values lost would have certainly been greater if the firefighters did not have a viable road at the bottom of the canyon to anchor their containment lines against. The vegetation along the road was significantly reduced by the project which was designed to make this neighborhood more defensible during a wildfire. The price tag for the fuels



**The Dutch Creek Fuels Treatment Project proved successful during the Dutch Fire**

reduction project is a considerable bargain and a significant cost savings in terms of minimizing the fire size to only 371 acres and capping the suppression costs to \$3 million.

### **Klamath River Fire Safe Council - Dutch Creek Fuel Reduction**



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**Before and after photos from the Dutch Creek Fuel Reduction Project on the Klamath National Forest, California**



## 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.

### National Cohesive Wildland Fire Management Strategy Goal—Primary Factor: Fire Adapted Communities

Human population and infrastructure can withstand a wildfire without loss of life and property.

## Fire Adapted Communities

The Forest Service began development of the Fire Adapted Communities (FACs) program as a way to combine all the wildland urban interface (WUI) tools which help lower risk. A FAC is a knowledgeable and engaged community in which the awareness and actions of residents regarding infrastructure, buildings, landscaping and the surrounding ecosystem lessens the need for extensive protection actions and enables the community to safely accept fire as a part of the surrounding landscape. The anticipated result is a better educated, more engaged community that will need few suppression and structure protection resources in the event of a wildfire and a safer environment for firefighters to provide protection when necessary. It will result in lower costs, less damage, and fewer deaths and injuries from wildfire. Firewise, Ready, Set, Go!, Community Wildfire Protection Plans (CWPPs), fuels management, prevention, local capacity, mutual aid agreements, internal safe zones, and strong local partnerships are the foundation of successful FACs. Nationwide use of the term has increased and audiences understand the concept and process. FAM is developing a graphic matrix to illustrate benefits and tools of FACs. Next step is providing support for communities-at-risk of wildfire who have limited capacity to move toward lowering risk through existing methods.

### National Fire Protection Association

The Firewise program has seen some major changes over the last year. As a result, the National Fire Protection Association (NFPA) program is more focused, proactive, responsive and cost effective. There are now over 600 Firewise Communities nationwide and NFPA has set a goal of 1,000 communities by 2013. They are developing



**An educated, more engaged community will be better prepared when a wildfire occurs**

a system to measure and track the far larger number of communities and neighborhoods that use Firewise principles but have yet to achieve full Firewise Communities status. NFPA is working closely with the International Association of Fire Chiefs (IAFC) to integrate Firewise principles into the “Ready, Set, Go!” message; has offered IAFC access to NFPA and Firewise mailing and electronic mailing lists, provided hardcopy; electronic, and other information for distribution; offered access to NFPA distribution methods for warehoused literature; and funded, developed and delivered hard drives for the 2010 WUI Conference in Reno, Nevada. NFPA funds 50 percent of the Firewise program with a dollar-for-dollar match and is working diligently with partners such as IAFC, Forest Service Research, Institute of Business and Home Safety, a variety of insurance

companies and many others to further its message about defensible space and individual responsibility to protect homes in the WUI.

### **Ready, Set, Go!**

The IAFC's Ready, Set, Go! Program conducted pilots in communities at risk in the states of Florida, New Jersey, Montana, Arizona, Texas, Tennessee, Pennsylvania, Utah and Michigan in 2010. The pilot locations were chosen by the National Association of State Foresters (NASF). The IAFC mentored the pilot communities and will evaluate lessons learned as they enter their second year of Ready, Set, Go! Implementation. The 2011 phase will take the Ready, Set, Go! Concept statewide in each of the nine pilot states and designate five more pilot communities in other states. FAM is funding Ready, Set, Go! Along with the Department of the Interior (DOI) and the United States Fire Administration (USFA).

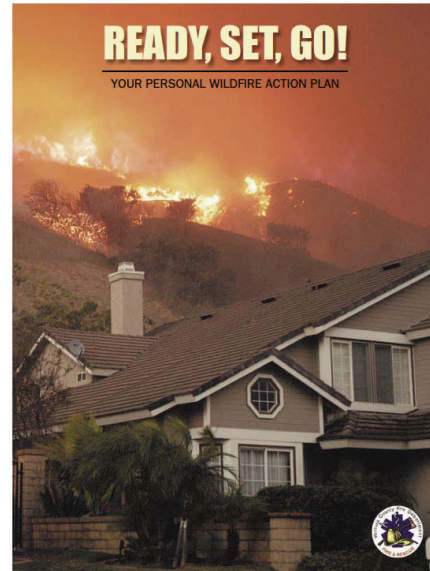
### **Interagency Mitigation Communication Project**

FAM is leading the way for an interagency communication project which will provide FAC messages (Firewise, Ready, Set, Go!, CWPPs, individual responsibility, etc.) to all public information officers (PIOs) in the Forest Service, the DOI, USFA, states, and as many local authorities as possible. This information is designed to educate PIOs regarding the tools for creating defensible space for folks facing the threat of wildfire and for use during the off season to educate the community in preparation for fire season. The project was begun in 2010 and will be fully implemented in the spring of 2011.

### **Building a Fire Adapted Communities Network**

FAM, together with the National Wildfire Coordination Group (NWCG) Wildland Urban Interface Mitigation Committee, is leading the effort to build a larger cadre of partners/stakeholders who are informed about WUI issues and are in a position to use their audiences to educate property owners about mitigation. This is an effort to open the doors to a larger audience of potential cooperators who have expressed interest in participating in addressing WUI issues. Approximately 70 groups (National Association of Counties, Red Cross, International Code Council, NFPA, insurance companies, National Volunteer Fire Council, American Planning Association, etc.) will be invited to the first meeting (held in conjunction with the IAFC WUI Conference in March 2011), where WUI issues will be discussed. The anticipated outcome is better informed organizations who have a stake in the WUI and ample opportunity for those groups to contribute to WUI solutions through their individual channels.

FAM continues to work closely with the National Weather Service (NWS) at the National Interagency Fire



Center (NIFC) and in Wyoming regarding the development of the WildFire Program using NWS field communicators to share mitigation information (Firewise) and give early warning instructions (Ready, Set, Go!, and status of fire weather) to communities at risk.

Insurance companies represented by the Institute for Business and Home Safety (IBHS) are working with the Forest Service to build a cooperative, collaborative network to address issues in the WUI and share the mitigation message with their respective audiences/customers.

The WUI Mitigation Committee was successful in prioritizing the WUI as a research topic for 2011 and 2012. Joint Fire Sciences called for proposals relating to an optimization model for assessing best WUI mitigation methods under specific circumstances. The result of the research will assist field personnel in prioritizing prevention, mitigation, suppression and funding issues.

### **Cooperative Fire**

The Cooperative Fire Program has two main components, the State Fire Assistance (SFA) program and the Volunteer Fire Assistance (VFA) program.

### **State Fire Assistance Program**

The SFA program assists several national initiatives, such as Firewise and the Smokey Bear campaign, but also provides funding to state forestry agencies for a variety of activities, including:

- 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.

### Volunteer Fire Assistance Program

The VFA program is administered by state forestry agencies through the distribution of 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 for the organization, training, and equipping of fire departments in rural areas with a population of 10,000 or less.

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

1. treated high priority fuels according to its CWPP,
2. achieved Firewise or equivalent recognition, or
3. enacted mitigation or fire prevention ordinances.

Together, the SFA and VFA programs provided the following support in FY 2010:

- Trained nearly 60,000 firefighters;
- Provided \$18 million in funding for communities to upgrade or purchase new fire suppression equipment; and
- Formation or expansion of 44 new or existing volunteer fire departments;

In total, over 15,000 communities were assisted through the two programs during FY 2010, with a percent of communities with increase capacity reaching 28 percent.

### Community Wildfire Protection Plans

Community Wildfire Protection Plans (CWPPs) address wildfire response, hazard mitigation, community preparedness, and structure protection. CWPPs provide communities a tremendous opportunity to influence how and where federal agencies implement fuels reduction plans on federal and non-federal lands. Table X below illustrates the current status of CWPPs, as well as Communities at Risk (CAR).

### 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, allowing substantial savings to the taxpayers.

In FY 2010, nearly 1,000 property items were acquired and assigned to 42 state cooperators. This included just shy of 400 pieces of rolling stock. Trucks and trailers are normally equipped with tanks, generators, and pumps to assist firefighters on wildland and brush fires. Thirteen (13) pieces of heavy equipment were loaned to state cooperators to help maintain and build fire roads. The value of the property items distributed through FEPP in FY2010 had an acquisition cost of slightly over \$40 million dollars—double the value in FY 2009.

State foresters and the Forest Service have mutually participated in the FEPP program since 1956. Currently, the inventoried property value exceeds \$1 billion with over 140 operable aircraft and more than 36,000 items on the federal inventory, including nearly 23,000 vans, trucks, and trailers. In FY 2010, the program acquired more than \$40 million in fire equipment and supplies to

**Table 3. Current state of Community Wildfire Protection Plans (CWPPs) and Communities at Risk (CAR)**

NASF Region	Total CAR	CAR Covered by CWPP	CAR at Reduced Risk
West	6,191	2,954	1,136
South	43,922	1,515	2,055
Northeast	5,475	688	383
<b>Total</b>	<b>55,588</b>	<b>5,157</b>	<b>3,574</b>

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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 FEPP program.

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

The Federal Firefighter Property (FFP) program began in March of 2006. Through the FFP program states are afforded the opportunity to acquire title to excess military equipment; then, assign that equipment to rural fire departments. The Department of Defense (DoD) authorized the Forest Service FEPP program to manage the transfer of DoD property through a Memorandum of Agreement.

The major difference between the FFP program and the FEPP program is the ownership of the items acquired. All items acquired through the FEPP program remain the property of the Forest Service and are loaned to the recipient agency, while items acquired under the FFP program belong to the recipient. The FFP 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 FEPP program.

Currently, 31 states—3 more than reported last year, have signed agreements with the Forest Service to participate in the FFP program. Participants include the states of Alabama, Alaska, Arkansas, Colorado, Connecticut, Florida, Idaho, Indiana, Iowa, Kansas, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Texas, Virginia, Washington, and Wyoming. New agreements between non-participating states and the Forest Service are being completed; three additional states are expected to be under agreement in FY 2011.

In 2010, over \$101 million in equipment was distributed to 28 states, as compared to \$91 million and 23 states last year. The Missouri Department of Conservation alone has acquired 109 trucks, with a cost savings of more than \$3

million to the state agency. Through the FFP program, state cooperators acquired more than 1,000 vehicles in 2010 with an original acquisition cost of over \$49 million. Vehicles were refurbished and equipped with pumps and generators to assist in rural and wildland firefighting.



**Fire trucks such as this one are loaned to states through the FEPP program**

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## Goal 4—Success Stories, Community Assistance

### Federal Excess Personal Property (FEPP) program assists New Jersey Forest Fire Service

The New Jersey Forest Fire Service (FFS) is charged with protecting more than 3.2 million acres from wildland fires and suppresses more than 1,200 wildland fires annually. They also treat hazardous fuels with prescribed fire to prevent wildfires or lessen their severity.

The agency uses a variety of tools to protect the citizens of New Jersey. With rising population and development, the job is becoming increasingly costly and complex. It can cost hundreds of thousands of dollars to acquire and equip its employees with specialized fire equipment.

In 2008, the New Jersey FFS acquired a truck formerly used for setting telephone poles. They removed the truck's utility body and installed a used firefighting unit. They then constructed and installed a 500-gallon aluminum tank, 200-gallon per minute pump, hose reel, and associated plumbing.

The New Jersey FFS used in-house resources to convert and modify the vehicle at a modest cost of about \$3,000.

The truck is a versatile wildland engine that can also tow a tractor plow for initial fire attack and prescribed fire projects. Because the conversion was completed in-house, it resulted in a major savings for the Forest Fire Service and the State of New Jersey; a new modified vehicle would have cost the State more than \$100,000. The New Jersey FFS now has the use of equipment and apparatus it could not afford to purchase with State funding.



**The unit can now provide a crucial supply of water where no other source is available**



**New Jersey Forest Fire Service acquires equipment from the FEPP program to accomplish their mission**

### Federal Firefighter Property Program provides rural Missouri volunteer fire department a new Rescue Unit



**San Antonio VFD, Missouri, new rescue unit as a result of the FFP program**

The San Antonio Fire Protection District is a small rural volunteer fire department (VFD) in northwest Missouri, east of Saint Joseph. In 2009, the VFD was notified by Missouri Department of Conservation that there was a truck that might be able to be retrofitted as a rescue unit.

In November 2009, a 1986 Chevrolet truck arrived that was 4-wheel drive with a utility bed. It needed painted and retrofitted. Chrome mirrors, door latches and locks were salvaged off the truck. Aluminum running boards, chrome wheels and tires were installed; and in November 2009, the truck went into full service.

## Firewise Practices Credited with Saving Homes in Wilderness Ranch

On the afternoon of August 26, 2010, a lightning strike ignited a grass fire near the southern edge of Wilderness Ranch, a 277 home subdivision and a nationally recognized Firewise Community located 26 miles northeast of Boise.

Within minutes, the fire burned around an unoccupied home, and variable winds pushed it south, west and north, through steep terrain covered with flashy fuels and sagebrush, threatening homes in every direction.

Volunteer firefighters from the Wilderness Ranch Fire Protection District (WRFPD) were first on the scene, but they were later joined by a handful of state and federal agencies.

While fire fighters were hard at work on the ground and retardant was dropped from above, 23 homes were evacuated. In the end, a total of 38 acres burned; but no structures were harmed, and no firefighters or residents were injured.

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***“Firewise practices really do work, and I hope more folks embrace them. It’s what really makes the difference between a success and a catastrophe!”—Wilderness Ranch Fire Protection District Chief John McCarthy***

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WRFPD Chief John McCarthy had the following to say about the fire, which was the largest to strike Wilderness Ranch since 1959: “We worked hard, but we also got lucky. We were lucky that winds never exceeded 30 mph; they were forecasted to be much greater. We were lucky that air attack resources were quickly available to us; often times they will be engaged elsewhere. We were lucky federal and state engines were available to help; the next day they were all committed to other incidents.

“I very much want to thank the owners of the affected houses for enabling those structures to be saved,” McCarthy said. “They worked long hours in the spring and summer clearing flammables away from their homes, and it was this creation of defensible space that allowed us to place engines and initiate fire operations that really saved those houses. Firewise practices really do work, and I hope more folks embrace them. It’s what really makes the difference between a success and a catastrophe.”



**A lightning strike ignited a grass fire near Wilderness Ranch—a 277 home subdivision, northeast of Boise, ID**

## Neighbors in Idaho are Working Together to Protect Their Communities from Wildfire

Although Idaho Firewise may be new to some, the Firewise concept is not. Idaho Firewise is part of the national Firewise Communities program.

Firewise organizations exist in over 30 states. Idaho alone has 15 communities that are nationally recognized Firewise Communities. The residents in these communities have committed to doing their part in making their neighborhoods safer from fire.



**Idaho has 15 nationally recognized Firewise communities—where residents have committed to doing their part to help their community survive a wildfire**

## 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.

### National Cohesive Wildland Fire Management Strategy Goal—Primary Factor: Restore and Maintain Landscapes

Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.

### National Cohesive Wildland Fire Management Strategy Goal—Primary Factor: Fire Adaptive Communities

Human populations and infrastructure can withstand a wildfire without loss of life and property.

### National Cohesive Wildland Fire Management Strategy Goal—Primary Factor: Wildfire Response

All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions.

## Webinars

In February 2010, the Forest Service worked with the Bureau of Land Management, National Park Service, Bureau of Indian Affairs, and U. S. Fish and Wildlife Service to hold the first national public information officer pre-fire season webinar. The goal was to prepare public information officers across the nation to communicate effectively during the upcoming fire season. Topics included a fire season outlook, the National Interagency Fire Center (NIFC) fire communication themes, fire policy update and social science research pertaining to fire communications. More than 300 units across the country participated in the webinar.

### Fire Management Today

*Fire Management Today* has served the wildland fire community since its first issue was published in 1936—nearly 75 years ago. The publication provides information regarding new techniques and technologies relevant to wildland fire management. Currently, the publication is published on the quarterly basis and is available in both print copy and on the worldwide web. The Fire Management Today website has been updated with past issues, bookmarked to provide ease in researching issues, articles, or authors. Once the revised national website is implemented, these publications will be found under the “Publications” link.



### National Interagency Fire Center Tours

NIFC hosted tours for wildland fire officials from several countries including Norway, Lebanon and Ethiopia and conducted information briefings and tours for USDA officials including Deputy Secretary of Agriculture

Kathleen Merrigan and Undersecretary for the Natural Resource and Environment Harris Sherman .

## Podcasts

In 2010, the FAM began producing podcasts and posting them on the NIFC website on a variety of fire-related topics such as “green” contracting, the deployment of radios and personnel to Haiti to assist the military with earthquake relief, and monthly fire outlooks.

## InciWeb

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

- to provide a simple, standardized reporting tool for public affairs and public information officers, and
- 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 is very user friendly and allows anyone with access to the internet the ability to obtain up-to-date information regarding fire facts, closures, press releases, scheduled public meetings, maps, and photos of current and closed incidents. The link to the website is: [www.inciweb.org](http://www.inciweb.org) .

The screenshot shows the InciWeb Incident Information System interface. At the top, there are dropdown menus for 'Select an Incident' and 'Select a state'. Below this is a navigation bar with links for 'Incidents', 'Announcements', 'Closures', 'News', 'Photographs', and 'Maps'. The main content area displays a table of 'Current Incidents' sorted by 'MODIFIED in DESCENDING order'. The table has columns for Incident, Type, Unit, State, Status, Acres, and updated. Below the table, there are 'DATA FILTER' options for Max Age, Status, and Type. A 'RECENT ARTICLES' sidebar on the right lists several news items related to prescribed burns and wildfire management.

Incident	Type	Unit	State	Status	Acres	updated
Red Cedar Reduction Prescribed Burn	Prescribed Fire	Chickasaw National Recreation Area	Oklahoma, USA	Active	2,184	1 day ago
Smith Run Fire- Formerly Valley Complex	Wildfire	Shenandoah National Park	Virginia, USA	Inactive	1,712	3 days ago
Bull	Wildfire	Sequoia National Forest	California, USA	Inactive	16,442	7 days ago
Santa Fe Watershed Prescribed Pile Burn	Prescribed Fire	Santa Fe National Forest	New Mexico, USA	Active	0	3/2/2011
Valley Complex (pickle Branch)	Wildfire	George Washington and Jefferson National Forests	Virginia, USA	Active	665	2/24/2011
Valley Complex (coffman&chest)	Wildfire	George Washington and Jefferson National	Virginia, USA	Active	3,479	2/24/2011

**InciWeb provides the public and media a single source of information**



## Goal 5 — Communication Success Story

### Schultz Fire Social Media

Because social media is so widely used by the public, tools such as Twitter, Flickr, YouTube and Facebook are rapidly becoming some of the most effective means of sharing incident information.

Social Media is essentially the electronic version of “word of mouth” – information moves rapidly and changes constantly. Growing social media presence not only provides the opportunity to hear the conversation but to be a part of it as a credible source.

For the 15,000-acre Schultz Fire on the Coconino National Forest last June, Twitter and Flickr were used within the establish social media guidelines for the USDA Forest Service very successfully during evacuations and fire suppression, during the emergency response to the subsequent neighborhood flooding, as well as during BAER and long-term rehabilitation efforts still ongoing.

Flickr is a photo-hosting site that enables the public to view and easily download any image posted. Posting photos to Flickr gives us to tell our story visually, and alleviates the hassle of sending large email attachments. Members of local, state, and national media have referred to the Coconino National Forest’s Flickr page to download visual content for their stories; Students, other members of the public, as well as employees have also used the photos for various projects. Photos of the Schultz Fire on Flickr have been viewed hundreds of times.



**This photo of the Schultz Fire, viewed from Flagstaff, AZ, is posted to the Coconino National Forest’s Flickr page and has been viewed over 600 times since it was posted June 24, 2010**



**This tweet, posted to the Coconino National Forest’s Twitter page, was re-tweeted 18 times to many who have thousands of their own followers**

Twitter is the most immediate way to share a message with our audiences. With a brief sentence and a single click, we’re able to instantly reach thousands of people – residents, media, partners, and even internal employees. During a burnout operation on the Schultz Fire, when the plume of smoke darkened the skies, phone calls and public concern increased. With a simple message to Twitter (“That big smoke is planned burnout operation north of Schultz Tank. Burnout today will hold line before winds tomorrow”), the calls subsided long before the smoke was gone, long before most traditional media outlets were able to run a story. Community partners such as the County, City, and Department of Transportation also utilized their own Twitter accounts to communicate evacuation and road closure information. Throughout the year, and especially during incidents, these partners and the Forest Service in northern Arizona frequently re-tweet each other’s messages to allow each agency to “stay in their lane” while providing consistent and credible information.

Both tools provide ample space to include links to agency websites, making Twitter and Flickr well-rounded sources for credible and useful information. These tools continue to be useful in sharing information not only during large incidents, but for smaller-scale issues such as prescribed fire and smoke. As the popularity grows for these and other social media sites, so will our opportunities to use them for communicating with internal and external audiences.

## 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.

### National Cohesive Wildland Fire Management Strategy Goal—Primary Factor: Restore and Maintain Landscapes

Landscapes across all jurisdictions are resilient to fire-related disturbances in accordance with management objectives.

### National Cohesive Wildland Fire Management Strategy Goal—Primary Factor: Fire Adaptive Communities

Human populations and infrastructure can withstand a wildfire without loss of life and property.

### National Cohesive Wildland Fire Management Strategy Goal—Primary Factor: Wildfire Response

All jurisdictions participate in making and implementing safe, effective, efficient risk-based wildfire management decisions.

## Human Resource Specialists Support for Wildland Fire Incidents

Human Resource Specialists (HRSP) on wildland fire incidents provide a point of contact for all incident personnel to discuss human resource and civil rights concerns. HRSPs, working with incident management teams, support incident personnel, set the tone for mutual respect, and provide leadership for a harassment free and positive work environment.

In the past 10 years, the program has reported an average of 475 serious contacts to HRSPs on incidents each year. Many of the contacts involve early resolution of conflict and mutual respect issues, and provide support to incident personnel involved in critical incidents or with personal emergencies. With an ongoing average of 98% to 99% resolution of Human Resource issues on incidents, the HRSP program is highly cost effective.

There is an ongoing need for HRSP's to support incident personnel involved in critical incidents and with personal emergencies. HRSP's are highly effective as Critical Incident Stress Management (CISM) Liaisons and support to Fire Peer CISM Teams. Conflict and Mutual Respect issues continue to be resolved at the lowest level. With an ongoing average of **98% to 99% resolution of human resource issues on incidents**, the HRSP program is highly cost effective. Through the use of an informative DVD and briefing papers, we will educate

Fire Leadership and Agency Administrators on multiple ways that the HRSP is vital to incident management.



## Fire and Aviation Management Workforce Diversity Program

Annually, FAM contributes \$650,000 in support of workforce diversity proposals throughout the agency to address:

- Workforce Diversity Planning
- Outreach
- Recruitment
- Hiring/Selection of Candidates
- Retention

Evaluation of proposals is based on demonstrated creativity in technique, scope, complexity, and potential for replication or influence nationally.

Oversight of the program is provided by a FAM Workforce Diversity Committee with representation from each region across the country. The committee reports directly to the national director of fire and aviation management.

Funds awarded each year are contingent upon successful implementation of the project and stated accomplishments for each proposal. An annual report is required to evaluate the effectiveness of each project.

The following summarizes the current approved projects approved from 2008 through 2010:

### **Haskell Indian Nation Fire Training**

Washington Office-Human Resources Management, Multicultural Workforce Strategic Initiatives (MWSI)

Provide basic firefighter training and Work Capacity Test to Native American students at Haskell Indian Nations University in order to be fire ready to fight fire through the Forest Service STEP and SCEP programs during the summer.

### **Funding to Pay Travel for MWSI STEPS**

Washington Office-Human Resources Management Workforce and Planning Analysis-MWSI Program

Provide funding for 100 diversity students annually for travel to their duty stations as STEP appointments.

### **Retention - Day Care for Fire Employees with Families**

#### **Aerial Fire Depot (AFD)**

Assist in retention of fire employees with families by creation of on-site daycare services. Assist with start-up funding, AFD Daycare staff and the leasing of an existing structure adjacent to the Aerial Fire depot to host a day care.

### **Women in Fire (National)**

#### **Aerial Fire Depot**

Recruitment, development and retention of women in fire. Multi-faceted approach utilizing the Great Northern Crew for entry level hires. Hire entry level women for



fire and provide them with a well-rounded foundation of fire knowledge. The Project also provides training and development opportunities through details.

### **Hiring and Development of Fire Professionals**

#### **Coconino and Kaibab National Forests and Northern Arizona University (NAU)**

Fund 5 STEP positions from the NAU forestry program to work in fire on the Kaibab and Coconino NF's. Create opportunities to develop these employees into high-level fire professionals with a balance of training, education and experience.

### **Recruitment through Tribal Youth Vocational Education and Internship Programs**

#### **Lincoln National Forest and Mescalero/Apache Tribes Interns**

Develop a participating agreement to fund Mescalero Apache youth as tribal interns to work seasonally with the Tribe's forestry and fire personnel. This intern program will help train promising young adults of the Mescalero Apache Tribe with the knowledge that they will become their community's natural resource leaders and possible Forest Service employees or contractors.



**Intern program helps to train promising young adults to become natural resource managers and leaders for their local communities**

### **Canyon Country Youth Corps (CCYC) Career Development and Outreach Project**

#### **Manti La-Sal National Forest**

Outreach and recruitment workshops across the Navajo Reservation and neighboring diverse communities to connect successful CCYC and Southwest Conservation Corps employees directly to Forest Service job opportunities

#### **Expand Fire Recruiter Program (National)**

#### **Manti La-Sal National Forest, San Juan National Forest**

Funding to provide salary to extend the tours for three existing permanent seasonal fire employees and provide travel/per diem associated with outreach and recruiting efforts. Expand existing proven fire recruiter program and continue coordination of inter Regional recruitment efforts.

#### **Train Students in Wildland Firefighting**

#### **Cleveland National Forest**

Collaboration between the Cleveland National Forest, the Southwestern Community College and Southern California Consortium to train diverse students in wildland firefighting. Cleveland NF provides fire instructors, training materials and PPE to students.

### **Expand the Umatilla Career Camp for Youth**

#### **Umatilla National Forest**

Re-funding/Expansion of a previous successful project which provided for outreach of students from the local schools. Expansion of the fire fuels camp and establish urban career camp in Pendleton, Oregon.

#### **Increase Recruitment for the Mt. Hood Type 2 IA Crew**

Refunding/Expansion of a previous successful project which provided for outreach, recruitment and hiring of entry level firefighters recruited from the urban areas in Portland, Oregon and Vancouver, Washington. The new funding provides additional work experience that would help employees become competitive for entry level fire positions at the GS-4/5 level and increase the number of organizations and communities that serve as a recruitment base for the crew.

#### **Increase Women and Minorities in the GS-462 Series via STEP/SCEP Hiring**

Targeted recruitment at two year forestry technician schools with special emphasis on women, six students per year and VRA. Current partnerships with tribal colleges, Haskell Indian college, Hispanic serving two-year forestry schools and Forestry Tech schools. Hiring of students working towards Associate of Science degrees and training in basic wildland fire skills. Provide basic fire training and burning experience in southern units then assign to western units for Wildland Fire through mid August.

#### **Career Camp, Recruitment and Hiring of Disadvantaged Youth**

#### **Chippewa National Forest – Blackduck Ranger District Career Camp**

Establishment of a three week Career Camp featuring Natural Resource Management with emphasis on fire and fuels. Hiring of the 18-22 year olds into entry level firefighting positions. Summer internships working in fire and fuels management. Upon completion of a summer internship in the fire program, students will be eligible to pursue a degree at Itasca Community College.

#### **USDA Forest Service Job Corps Civilian Conservation Centers**

In FY 2009, the USDA Forest Service Job Corps Civilian Conservation Centers Strategic Plan for Wildland Fire Management & Hazardous Fuels Reduction Fiscal Year (FY) 2009 – 2014 was developed and presented as the future for the CCC's involvement in continuing the natural resource mission of the program.

This strategic plan outlines how to increase the use of CCC students and staff in the Forest Service fire management program and the national incident management system. The Forest Services' vision is to successfully recruit CCC students as full-time permanent employees, promoting excellence through diversity and accomplishing the natural resource mission of the agency.

This plan reflects our strong commitment to recognizing the talents of Job Corps students, staff, and graduates. Fulfilling this plan will help the Forest Service fill mission-critical skill gaps while at the same time provide productive long-term employment for Job Corps CCC students.

Although the Forest Service experienced a "below average" fire season in FY 2009, the following support was available from the Job Corps CCC programs:

- 870 Job Corps CCC students received some level of fire qualifications and certification;
- 15 Job Corps CCC crews were sent out on assignment as camp crews on fire or fire-related incidents;
- 441 Job Corps CCC students were dispatched to incidents;
- 93 Job Corps CCC staff received wildland fire training and certification; and
- Both Schenck and Flatwoods Job Corps CCC's have trained hazardous fuels crews available for assignment.

### **Office of Inspector General Discussion Draft, *Forest Service's Firefighting Succession Planning Process***

The USDA Office of Inspector General (OIG) issued Workforce and Succession Planning audit report (08601-54-SF) to the agency on March 31, 2010. This report contained 4 findings and 20 far reaching and proscriptive Recommendations.

The Chief responded to this audit by 'concurring in concept' with many of these recommendations and committed to creating a new business model. This enabled the agency to reach a management decision on the recommendations while obtaining flexibility as to how we would address the recommendations. The new business model will address and resolve our longstanding fire and aviation workforce issues around recruitment, retention, training, capabilities and competencies.

OIG response requirements will be satisfied as we simultaneously organize around recognizable national goals, objectives and benchmarks and embrace unique regional social, economic and ecological characteristics. This path forward for the Strategic Plan represents a significant opportunity for the agency, will require



**Job Corps CCC Urban Forestry crew working on Firewise program for urban/forest interface to reduce hazardous conditions**

sustained effort and be completed no later than March 31, 2011.

## Goal 6—Success Stories, Workforce

### Job Corps Member Learns to Fight Fire and Protect Natural Resources

For Job Corps enrollee Paul Almona, the Forest Service represents opportunities he might otherwise have never had. Currently based out of the Monongahela National Forest's Supervisor's Office where he is completing the work-based learning portion of his education, Almona is excited by his training in fire management, and he wants nothing more than a job as a Hot Shot or to attend the National Apprenticeship Academy.

Born in Benin City, Nigeria, and raised in Delta State, Nigeria, Almona was just nine years old when his father moved the family to the United States. They first lived in the Philadelphia area and then moved to Delaware. A naturalized U.S. citizen, Almona attended high school both in Delaware and for a time back in Nigeria. Following high school graduation, he found few employment opportunities. Rather than settling for a low-paying job, he decided to take advantage of the training and skills offered through the Job Corps. He came to the Harper's Ferry, West Virginia, Job Corps Center when the facility was being shifted from the U.S. Park Service to the Forest Service, with the Monongahela National Forest as the connected Forest.

After spending time in the business, masonry and carpentry programs at Harper's Ferry, Almona found his niche when the Monongahela offered a basic firefighting course at the Center. From the beginning of his fire training, Almona knew the job was a good fit for him. Firefighting allows him to be outdoors and do a physical job, while learning and seeing different aspects of forest management.

Since completing his basic firefighter course, he has served on fires in North Carolina and on prescribed fires in West Virginia. He also attended an advanced forestry course on the Pisgah National Forest in North Carolina, learning many different aspects of the forestry program. To fully complete that program, Almona is seeking a STEP or permanent Forest Service position.

As part of his work-based learning experience on the Monongahela, he has helped with timber marking, preparation for prescribed fires, and is gaining experience in engine operation and maintenance. Almona will leave the Monongahela in mid-December but is expected to come back to the Forest for the spring fire season.



**Job Corps training and Forest Service experience can lead to more job opportunities**

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## **Chippewa National Forest Travels to Schenck Job Corps to Recruit 2010 Graduate**

Chippewa National Forest employee Mike Martin had the opportunity to travel to the Schenck Job Corps Civilian Conservation Center on the Pisgah National Forest in North Carolina. The purpose of the trip was to recruit a 2010 graduate and gain a better understanding of the Forest Service Job Corps program. Martin arrived on graduation day for the Schenck Advanced Wildland Fire Training Program and met with 16 students from across the United States.

### **Schenck Job Corps Civilian Conservation Center**

The Schenck Job Corps Civilian Conservation Center is located literally across the street from the Cradle of Forestry in North Carolina. The center is named in honor of Carl A. Schenck. Schenck was a German forester and was Gifford Pinchot's successor at the Biltmore Estate and founder of the Biltmore Forest School.

Job Corps offer hands-on training in over 30 vocational trades, including cement masonry, welding, business technology, painting, carpentry, bricklaying, food service and culinary arts, and forestry. Each Job Corps student is required to complete a minimum of 360 hours of work-based learning as part of their vocational training. The average length of stay is approximately eight months for all students and approximately 12 months for graduates. Students may remain enrolled for up to two years, with an optional third year granted to students who qualify for advanced training. The Schenck Job Corps Civilian Center is unique in that it offers both a 12 month Advanced Forestry and an Advanced Wildland Fire Management Program for students who have successfully complete a traditional Job Corps program.

Acceptance into the Advanced Wildland Fire Management Program is highly competitive—with over 50 individuals applying but only 16 students selected annually to the program. Operationally, the program operates as Davidson River Initial Attack Crew for local and national availability. The wildland firefighter program is aimed at providing training and enhancing the skills of Job Corps students through an advanced fire management training program with the opportunity to be hired into a temporary position or as a student trained under the Student Career Experience Program (SCEP). Training components include classroom sessions, fieldwork, on the job training and counseling.

### **Chippewa's Involvement with Job Corps Civilian Conservation Centers**

In 2009, the Chippewa National Forest placed two Schenck students into Forestry Technician positions on the Blackduck Ranger District. One student has left the



**16 students from across the United States graduated from the Schenck Advanced Wildland Fire Training Program in 2010**

program, but the second will be returning from school for a second summer. District Ranger, Greg Morris is working to fill the second position with a new student this May. Through utilizing the Schenck Job Corps program, the forest is able to obtain skilled candidates to work in fire, timber, and other resource areas.

### **A Passion for the Job**

While visiting the Schenck JCCCC, Martin saw young adults that have a passion for their work and desire to grow. They take pride in their accomplishments and desire to pursue careers in natural resources. They have come from a variety of backgrounds, many from rural areas where agriculture and forestry are components on the landscape. Some are from urban areas and are being exposed to the benefits and challenges that a career in natural resources can bring. All have a strong work ethic and a desire to succeed. They are a diverse group that is working hard towards obtaining careers in natural resources with the Forest Service.

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***“Eager, energized, motivated students that are seeking to get their foot in the door. I don’t think that I’m along in saying that these were my aspirations after coming out of school” (of the graduates from the Schenck Job Corps Advanced Wildland Firefighting Program)—Mike Martin, Chippewa National Forest Employee***

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## **Pine Ridge Job Corps and Forest Service Crews Working to Protect Sacred Mountain**

Thousands of small pine trees are being cut in meadows near Inyan Kara Mountain in northeast Wyoming to begin to restore the meadows and forest conditions that once existed there.

A crew from Pine Ridge Job Corps, Civilian Conservation Center, and the Nebraska National Forest is working with the Black Hills National Forest to cut the trees now so the trees will dry before prescribed fires are lit to help clean up the overcrowded forest on the isolated mountain.

Doug Currie, Fire Operations Specialist, Nebraska National Forest and Grasslands, said the crew is the Solider Creek Fuels Module based out of Chadron, Nebraska, with five student from the Job Corps and five employees from the USDA Forest Service.

The crew is cutting pine trees out of historic meadows where tribes camped and spent summer months in ceremonial and other activities. The crew hopes to cut 80 acres to prepare for a broadcast burn at Inyan Kara within the next few years.

Currie said many of the Job Corps students come from overseas. “We have student in our program from Burma, Thailand, Liberia and Iraq—so we have kids from all over.”



***“The work provides leadership development opportunities for our firefighters and it provides some valuable work experience and life skill experience for students that come out with the crew.”—Doug Currie, Fire Operations Specialist, Nebraska National Forest and Grasslands***



Jerome Suah was born in West Africa in Liberia and now lives in Chadron, Nebraska. “I’ve learned a lot,” Suah said. “I learned responsibility, take care of my tools, watch out for my friend’s safety. Safety is the first thing on our crew.” “My favorite experience is running the chainsaw safely—yep, I love that! At least I can run the chainsaw with no accident, do my job right, and that’s great,” said Suah.

Bearlodge Assistant Fire Management Officer Dennis Mauch said the project has been rewarding. “The fact that we are doing this on a place that is so sensitive to the Native peoples. I’ve learned so much. I’ve learned things

from tribes that I would never have had the opportunity to do if it wasn’t for this project. It’s been a great rounding



**Five Job Corps students joined a group of five Forest Service employees to cut pine trees out of a historic meadow near Inyan Kara Mountain**

experience to deal with the landowners, to talk to the different tribes, to get this organized and get it doing and to try and make a change out here on the ground. This has personally been a very rewarding experience,” Mauch said.

Officials will continue to work with the tribes and other interested people to maintain and conserve the legacy forest that existed at Inyan Kara from Crazy Horse and George Custer rode through the area 130 years ago.

For additional information on the Black Hills National Forest, visit: [www.fs.fed.us/r2/blackhills](http://www.fs.fed.us/r2/blackhills).



## Part IV. Fire and Aviation Management Performance Measures and Outcomes

### Performance Accountability

Sound performance accountability requires establishment of relevant measures and reportable outcomes, with transparent reporting toward the desired results of those measures. Wildland fire is a high-profile, interagency program with a significant allocation of agency resources. As such, viable performance accountability is an integral part of the Fire and Aviation Management (FAM) program.

FAM's performance management framework continues to evolve as a result of changes scheduled to occur in FY 2010 including:

- a new *USDA Strategic Plan*,
- the Administration's focus on *High Priority Performance Goal* measures throughout the government, and
- the continued efforts by Office of Management and Budget (OMB) to refine performance assessment.

Excluding the *USDA Strategic Plan* measures which will be replaced in 2010, the following list provides a full accounting of the performance measures reported at the national level by FAM for FY 2009. These measures are part of a multi-faceted performance framework that shapes FAM's work. They are a result of a number of different efforts:

1. The *Forest Service Strategic Plan*;
2. OMB's performance assessment rating tool;
3. Forest Service output measures aligned with Budget Line Items;
4. Forest Service executive priorities; and
5. The interagency and intergovernmental *10 Year Comprehensive Strategy*.

It should be noted that with the federal natural resource management agencies' adoption of the 2009 implementation guidance for the Federal Wildland Fire Management Policy, the term, "wildland fire use" is no longer used. This guidance provides for two types of fire—planned ignitions (prescribed) and unplanned ignitions (wildfire). Accomplishments for what was formerly referred to as "wildland fire use" in the performance measures are recorded in the following tables as "unplanned." This includes those unplanned ignitions that demonstrated hazard reduction and fire effects in alignment with local Land and Resource Management Plan (LRMP) Desired Conditions.

**Table 4. Forest Service Strategic Plan 2007—2017 Performance Measures and Outcomes for FY 2010**

### Forest Service Strategic Plan FY 2007—2012

Numeric designation (if appropriate)	Measure	2010 Actual	2010 Target (if applicable)
1.1a	Number and percentage of acres treated to restore fire-adapted ecosystems that are: (1) moved toward desired conditions and (2) maintained in desired conditions.	<b>Moved toward:</b> 693,957 24 percent <b>Maintained:</b> 1,231,800 42 percent	<b>Moved toward:</b> 1,180,000 49 percent <b>Maintained:</b> 1,128,000 47 percent
1.1b	Number of acres brought into stewardship contracts.	152,834	121,000
1.2	Percentage of fires not contained in initial attack that exceeded a stratified cost index (SCI).	39.7 percent	19 percent
1.3	Percentage of acres treated in the wildland urban interface (WUI) that have been identified in community wildfire protection plans (CWPPs) or equivalent plans.	44.8 percent	41 percent

**Table 5. USDA Strategic Plan**

Numeric Designation (if appropriate)	Measure	2010 Actual	2010 Target (if applicable)
2.1.1	Annual acres of public and private forest lands restored or enhanced *	4,776,620	N/A — new measure in FY 2010
2.4.1	Number of communities with reduced risk from catastrophic wildfire	3,574	13,000
2.4.2	Cumulative number of acres in the National Forest System that are in desired condition relative to fire regime	58,769,842	59,131,800
2.4.3	Percentage of acres treated in the WUI that have been identified in community wildfire protection plans or equivalent	44.8%	41%

**\* Fire and Aviation Management contributes to this measure**

**Table 6. Program Assessment Measures and Outcomes for FY 2010**

**Program Assessment**

Numeric Designation (if appropriate)	Measure	2009 Actual	Target (if applicable)
	Percentage of total National Forest System land base for which fire risk is reduced through movement to a better condition class.	2.60 percent	3.0 percent
	Percent of fires not contained in initial attack that exceed a SCI.	39.7 percent	19 percent
	Number of acres maintained and improved by treatment category (prescribed fire, mechanical, and wildland fire use) and of those improved the percent that change condition class.	1,925,757 24 percent	1,300,000 30 percent
	Percent change from the 10-year average for: (1) number of wildfires controlled during initial attack, and (2) number of human caused wildfires.	0.8 percent -15.7 percent	+/- 0.5 percent -1 percent
	Total acres treated in WUI and non-WUI and also acres treated for other vegetation management activities that achieved fire objectives as a secondary benefit.	3,237,727	2,325,772
	Number of acres restored and maintained per million dollars gross investment.	<b>4,125</b>	<b>3,900</b>
	Acres moved to a better condition class per million dollars gross investment.	<b>1,184</b>	<b>1,500</b>

With the change in the implementation of the Federal Wildland Fire Policy, the agencies no longer use the term "wildland fire use." There are now two kinds of fire only—planned and unplanned. Accomplishments from those unplanned ignitions where assessments have shown hazard reduction and fire effects are in alignment with Land and Resource Management Plans (LRMP) desired conditions are now recorded where the agency used to record "wildland fire use."

Table 7. 10 Year Comprehensive Strategy Implementation Plan Measures and Outcomes for FY 2010

10 Year Comprehensive Strategy Implementation Plan

Numeric Designation (if appropriate)	Measure	2010 Actual	Target (if applicable)
	Percent change from 10-year average for: (a) percent of wildfires controlled during initial attack, and (b) number of unwanted human-caused wildfires.	0.8 percent -15.7 percent	+/- 0.5 percent -1.0 percent
	Percent of fires not contained in initial attack that exceeded a SCI.	39.7 percent	19 percent
	Number of acres treated per million dollars gross investment in WUI and non-WUI areas.	4,280 acres/ million	N/A
	Percent of collaboratively identified high priority acres treated where fire management objectives are achieved as identified in applicable management plans or strategies.	62 percent	N/A
	Number and percent of acres treated through collaboration consistent with this Implementation Plan identified by treatment category (i.e., prescribed fire, mechanical fire, and wildland fire use—unplanned).	<b>Prescribed</b> 1,612,090/ 55percent <b>Mechanical</b> 1,167,277 40 percent <b>Unplanned</b> 164,218/ 5 percent	N/A
	Number and percent of acres treated to restore fire-adapted ecosystems which are: (1) moved toward desired conditions and (2) maintained in desired conditions.	<b>Moved toward</b> 693,957 24 percent <b>Maintained</b> 1,231,800 42 percent	<b>Moved toward</b> 1,180,000 49 percent <b>Maintained</b> 1,128,000 47 percent
	Number of burned acres identified in approved post-wildfire recovery plans as needing treatments that actually receive treatments.	175,000	N/A
	Percent of burned acres treated for post-wildfire recovery that are trending toward desired conditions.	95 percent	N/A

**10 Year Comprehensive Strategy Implementation Plan (continued)**

Numeric Designation (if appropriate)	Measure	2010 Actual	Target (if applicable)
	Number and percent of communities-at-risk covered by a CWPP or equivalent that are reducing their risk from wildland fire. A community is at reduced risk if it has satisfied at least one of the following requirements: (1) recognized as a Firewise community or equivalent, or (2) enacted a mitigation/ fire prevention ordinance, or (3) high priority hazardous fuels identified in the CWPP or equivalent are reduced or appropriate fuel levels on such lands are maintained in accordance with a plan.	3,574 69.3 percent	N/A
	Percentage of at risk communities who report increased local suppression capacity as evidence by: (1) the increasing number of trained and/or certified firefighters and crews or (2) upgraded or new fire suppression equipment obtained or (3) formation of a new fire department or expansion of an existing department involved in wildland firefighting.	28 percent	N/A
	Number of green tons and/or volume of woody biomass from hazardous fuel reduction and restoration treatments on federal land that are made available for utilization through permits, contracts, grants, agreements, or equivalent.	4,521,727 green tons	N/A

**Table 8. Forest Service National Measures Set and Outcomes for FY 2010**

**Forest Service National Measures Set**

Numeric Designation (if appropriate)	Measure	2010 Actual	Target (if applicable)
	Acres of hazardous fuels treated outside the WUI to reduce the risk of catastrophic wildland fire.	1,,282,669	N/A
	Acres WUI high-priority hazardous fuels treated to reduce the risk of catastrophic wildland fire.	1,955,057	N/A
	Three-year percent of fires not contained in initial attack that exceeded a SCI.	26.7 percent	20.4 percent
	Number of communities receiving firefighting capacity building State Fire Assistance (SFA)	15,382	11,845
	Number of small communities receiving firefighting capacity building Volunteer Fire Assistance (VFA).	13,235	6,500

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A variety of factors have the ability to influence one way or the other the agency's ability to meet all established performance measure targets. Adverse weather, resource availability, whether the treatments are located in the more expensive, complex areas of the country—in the wildland urban interface, and/or the number of treatments required to move an area toward its desired condition, are all examples of factors that can negatively affect accomplishments and the agency's ability to meet established targets.

Overall, the agency continues a major effort to effectively address the wildfire situation in an efficient, integrated, and comprehensive manner. Critical emphasis to continue agency efforts on these objectives will be maintained in FY 2011. Targets will continue to be achieved by working in collaboration with federal and non-federal partners and by working across agency programs.



**Targets will continue to be achieved by working in collaboration with federal and non-federal partners and by working across agency programs**

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## Part V. Looking Ahead to Fiscal Year 2011

The Forest Service and Fire and Aviation Management remain committed to the use of new science, technology, tools, and information at both the program and incident levels to work toward the perfection of wildland fire management. FAM realizes and is committed to working in collaboration with other federal agencies, state governments, and cooperators to be successful. FAM is certain that an expanded, improved knowledge base will propel the organization to established goals associated with a safe, proficient, and effective program.

In concert with the significant accomplishments outlined in this report, each year brings new challenges and 2011 will be no different as FAM works toward a continued scope of work for a large, complex, multi-faceted program. The following are a few key focus areas for FY 2011:

### **The National Cohesive Wildland Fire Management Strategy, Phase II**

The Cohesive Strategy must reconcile concerns about wildfire risk, values at risk and appropriate response to wildfire at different temporal and geographic scales. There is a need to balance a uniform evaluation of wildfire risk across the nation, while ensuring that local and regional concerns and values are neither compromised nor overlooked. The full development of a national cohesive strategy will include a number of regional strategies supported by local and regional priorities, which may vary depending on local and regional concerns.

In Phase II, together with partners across agencies and jurisdictions, regional strategies and assessments will be developed and analyzed using a collaborative process that cycles between analysis and engagement with stakeholders.

In Phase III, the following steps will occur:

- Conduct the national analysis. Develop a draft national summary of the regional alternatives. The summary will include a description of the decision space available, a description of the activities and priorities associated with the regional alternatives, and a description of the tradeoffs associated among the alternatives.
- Share the results of the national results and summarization with stakeholders.
- Update and conclude the analysis based on feedback from stakeholders.
- Establish a five-year review cycle to provide updates to Congress.

The Cohesive Strategy envisioned by the Wildland Fire Leadership Council builds on successes of the past while



incorporating a new collaborative approach to managing a complex national problem—wildfire. This new approach includes all the partners involved in fire management and give each a voice and role in addressing a collective problem. In 2011, this will continue to be a key priority for FAM.

### **Fire Program Analysis, The Improvement Process Year**

In FY 2010, the Fire Program Analysis project received a new Charter and is provided oversight by an interagency Board of Directors and Oversight Group. A new “path forward” has been developed; and in FY 2011, FAM will play an active role as we progress through the “Improvement Process Year.”

Projected milestones include:

- March 2011: Support Working Team will provide a level of validation to the Interagency Analysis Team for the FPA program.
- April 2011: Based on the feedback from the Support Working Team, the Interagency Analysis Team will provide a validation report to the Oversight Group.
- June 2011: An independent review of both the business and technical process of FPA will commence.

