Fiscal Year 2014 Wildland Fire Management Report

Issued: January 12, 2015

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Letter from the Directors

In this Fiscal Year (FY) 2014 Wildland Fire Management Annual Report, we, the Department of the Interior and USDA Forest Service, provide an overview of the FY 2014 fire season and outline the challenges faced and the successes accomplished to meet our diverse missions. We also take a look forward to the challenges we expect in FY 2015. Our goal isn't simply providing protection from wildfire. We must safely and effective extinguish fire when needed; use fire where allowable; manage our natural resources; and as a nation, live with wildland fire. To do so, we must restore and maintain landscapes, promote fire adapted communities, and respond safely and efficiently to wildfires.

In FY 2013, we suffered extraordinary loss during the fire season—in total 34 wildland firefighters. Each year, our goal is for every wildland firefighter to return from their assignments and to their families safe. Unfortunately, this year, we were unsuccessful when an off-duty accident claimed the life of a federal firefighter while assigned to an incident. Our condolences go out to his family, friends, and co-workers; and the families, friends, and co-workers of eight other partner wildland firefighters who paid the ultimate sacrifice while protecting human life, communities and other valued resources. Their sacrifices will not be forgotten.

Each new year brings with it a fresh set of challenges; and every year, our employees and partners rise to the occasion to meet, and most times exceed, the expectations of the American people.

We are proud of our employees; applaud their dedication to work. We could not be successful without them. It is our hope that this report will illustrate the good work we have done throughout the year.

Sincerely,

Jim Douglas, Director
Office of Wildland Fire
U. S. Department of the Interior

Tom Harbour, Director
Fire and Aviation Management
U. S. Department of Agriculture Forest Service

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Table of Contents

Letter from the Directors ii

FY 2014 Fire Season at a Glance 1

Fire Season by Geographic Area 2

Wildland Fire Support to the National Response Framework 3

Support under the National Response Framework *4*

Support under the National Oil and Hazardous Substance Pollution Contingency Plan *5*

Financial Highlights 6

FY 2014 Wildland Fire Management Appropriation 6

Wildland Fire Management Obligations 6

FY 2014 Wildland Fire Statistics 8

Estimated Numbers of Fires and Acres Burned 8

Fuels Management Program 10

Fatal and Non-fatal Serious Accidents 12

Fatal Accidents *12*

Entrapments and Non-Fatal Serious Accidents *12*

Noted Non-fatal Accident Trends *12*

Major Department Program Initiatives 18

Joint Initiatives – The Department of the Interior and Forest Service 18

National Cohesive Wildland Fire Management Strategy *18*

2014 Quadrennial Fire Review *18*

Wildland Fire Information and Technology *19*

Joint Fire Science Program *19*

Forest Service Research *20*

International Fire Program *21*

International Liaison Committee *22*

FY 2014 International Assistance and Interaction *23*

Medical Standards 24

Evolving Incident Management 24

Human Performance Factors 24

Wildland Fire Governance 25

Interagency Dispatch Optimization Pilot Project 25

Department of the Interior Specific Initiatives 26

Risk Based Wildland Fire Management 26

USDA Forest Service Specific Initiatives 28

Forest Service National Aviation Program 28

Cooperative Fire Program 29

Look Ahead to FY 2015 32

Joint Initiatives – The Department of the Interior and USDA Forest Service 32

National Wildland Fire Aviation Strategy 32

Sage-Grouse Habitat Conservation Efforts 33

Evolving Incident Management 33

Human Performance 33

Wildland Fire Information and Technology 33

Department of the Interior Specific Initiatives 33

Risk Based Wildland Fire Management 33

Success Stories 34

Joint Success Story – Department of the Interior and USDA Forest Service 34

The Bureau of Land Management and Forest Service 34

Department of the Interior 35

Bureau of Indian Affairs 36

Bureau of Land Management 38

U. S. Fish and Wildlife Service 40

National Park Service 42

Department of Agriculture 44

Forest Service *44*

Reviews and Open Recommendations 46

Status of GAO and OIG Reviews/ Recommendations 46

The Department of the Interior *46*

Forest Service *48*

Performance Measures 52

The Department of the Interior – Goal #1: Protect America's Landscapes 52

USDA Forest Service 53

Forest Service Strategic Plan *53*

USDA Strategic Plan *53*

Program Assessment *53*

10-Year Comprehensive Strategy Implementation Plan (updated December 2006) *54*

Forest Service Measures Set *55*

Federal Agency Wildland Fire Leadership Contact Information 56

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FY 2014 Fire Season at a Glance

A cold, wet winter along with a cool moist spring and summer significantly reduced the occurrence of wildfire for the entire area east of the Rockies during the FY 2014 fire season[1], resulting in a normal or below-normal fire season.

Fire Season by Geographic Area

In the Southwest geographic area, fuel conditions were set up for above-normal fire potential in southern Arizona and southwestern New Mexico; and east of the Continental Divide, good precipitation late last year provided a continuous fuel bed. These conditions, however, were mitigated somewhat by continuous moisture surges that increased fuel moisture levels across the area. Of particular note, fire managers in Arizona successfully managed several naturally occurring fires for multiple objectives. Subsequently, 120,000 burned acres met "resource management objectives" — restoring ecological balance to overgrown forests and grasslands while creating safety buffers for future fires.

The Rocky Mountain geographic area experienced similar conditions to the Southwest Area. Above-average snowpack in the higher elevations of the Rocky Mountain geographic area, coupled with a wetter and cooler than average spring, led to wetter than normal fuel conditions across most elevations. The monsoon season arrived on time in July across both the Southwest and Rocky Mountain geographic areas resulting in a low level of fire activity across those areas of the country.

In the West, periodic intrusions of cool, moist weather prevented any prolonged periods that would sustain large fire growth until mid-July. In the Great Basin geographic area, the peak of their fire season normally occurs around the second week of August. Overall, above-normal precipitation and below normal temperatures contributed to the below-average fire season across the Great Basin Area.

During June, the Northern Rockies geographic area received between 75 and 110 percent of normal precipitation west of the Continental Divide and 100 to 300 percent on the east side. Additionally, below normal temperatures slowed the snow melt in the area. Although this area of the country experienced 92 percent of average fires, only 30 percent of average acres were involved.

Above-normal fire potential was predicted for July through September over most of California, Nevada, and Oregon, along with portions of Washington and Idaho. Although significant portions of southern California and the Great Basin areas had critically dry fuel conditions, the lack of ignitions and the arrival of timely moisture intrusions held occurrence to below-normal levels in those areas of the country.

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[1] For the purposes of this report, the 2014 fire season is defined as wildfire activity from October 1, 2013 through September 30, 2014.

The Northwest and Northern California geographic areas experienced an active fire season and both had significant spikes of activity that resulted in above-average fires and acres burned. The Northwest had a dramatic spike mid-July with a lightning episode followed by a three-day wind event. Significant rainfall events in August reset fuel moistures in Washington state and abated activity in all but southwest Oregon. In contrast, the Northern California geographic area continued to experience above-normal fire activity through mid-September.

Conclusion

In summary, the number of fires and acres burned during the 2014 wildfire season were significantly below the 10-year average. A combination of wet weather events and increased fuels moistures resulted in a normal to below-normal fire season across most of the United States. Only the Pacific Northwest and Northern California geographic areas experienced an above-normal fire season, both driven by a combination of extended drought conditions, dry fuels, and wind and lightning events.

Nationally, by the end of September 2014, over 49,000 fires burned more than 3.9 million acres compared to the 10-year average of over 75,000 fires and nearly 9.4 million acres.

Wildland Fire 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 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 coordinating structures identified in the National Incident Management System (NIMS) to align key roles and responsibilities, linking all levels of government and non-governmental organizations with the private sector. Under the NRF, all incidents are managed locally. For most non-fire incidents, requests for Federal assistance are coordinated through the affected state to the Federal Emergency Management Agency (FEMA). Requests for Federal assistance for oil spills and other hazardous substance releases are coordinated through the U. S. Coast Guard or the Environmental Protection Agency (EPA) under the National Oil and Hazardous Substance Pollution Contingency Plan.

There are 14 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 USDA Forest Service (Forest Service) is 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 DOI provides support to the Forest Service for ESF4. The Forest Service and DOI also provide support to the remaining 13 ESFs.

The Forest Service Fire and Aviation Management and the DOI provide national and regional coordinators that work with their FEMA counterparts on a day-to-day basis. In addition, the agencies maintain qualified ESF4 personnel to staff FEMA national, regional, and field coordination centers to provide FEMA with access to wildland and structural firefighting resources during, and in anticipation of, Presidentially-declared emergencies and major disasters.

During FY 2014, the Forest Service and DOI worked with FEMA and other Federal agencies, in the ESF4 role, on six national-level planning efforts:

- Oil/Chemical Incident Annex,
- Nuclear/Radiological Incident Annex,
- Alaska All-Hazards Response Plan,
- FEMA Region V Improvised Nuclear Device Response Plan,
- Wasatch Front Earthquake Plan, and
- Cascadia Subduction Zone Earthquake/Tsunami Plan.

In addition, the agencies participated in planning for and conducting of three multi-day, national-level exercises during FY 2014. They included the:

- Alaska Shield Capstone Exercise – Alaska Earthquake exercise;
- Eagle Horizon 14 Exercise – National level Continuity of Operations exercise; and
- Vibrant Response 14 Exercise – Improvised Nuclear Device exercise.

Federal disaster response was fairly light during FY 2014 at both the national and regional levels. Highlights of the agencies' support to FEMA, other Federal, state, and local agencies during FY 2014 are listed below:

Support under the National Response Framework

East Coast Winter Storm

A severe winter storm paralyzed the southeastern United States in late January 2014. The Forest Service coordinated with FEMA and the U.S. Army Corps of Engineers in anticipation that crews would be needed to assist with emergency road clearing of downed trees. Fortunately, the impact of the storm was such that the anticipated support was not needed.

Oso Slide

A major landslide occurred near the town of Oso, Washington, in March 2014. Mud and debris covered an approximately 1.3 square mile span, at a depth of 60 feet in places. Forty-three people were killed by the slide. The search effort continued for more than a month. FEMA activated ESF4 regionally, and the Forest Service and the DOI provided ESF4 staff and a Type 2 incident management team to coordinate response operations, which involved over 200 responders at the height of the response.

The America Flag was flown over a debris field resulting from the landslide near the town of Oso, Washington in March 2014 (Photo Credit: Forest Service)

Washington Wildfires

In July, a Presidential Declaration of Emergency was declared after extreme drought continued to result in a critical fire situation throughout much of the Pacific Northwest geographic area. FEMA activated ESF4 to provide enhanced situational awareness regarding the wildfire situation across Washington state and to provide coordination with the incident management teams managing at the wildfires. FEMA and the state were particularly concerned about flooding/debris flows in and near the burned areas from some major storm systems. The Forest Service was issued a Mission Assignment from FEMA for a Burned Area Emergency Response Team (BAER) to provide technical assistance and training in post-fire assessment techniques and modeling for a team of state and local resources.

Support under the National Oil and Hazardous Substance Pollution Contingency Plan

Buenavista Copper Mine Hazardous Materials Spill

Fire and Aviation Management supported the Forest Service Engineering and USDA Departmental Management, as they fulfilled support responsibilities to the U.S. Environmental Protection Agency (EPA) and the state of Arizona in response to the Buenavista Copper Mine spill on the San Pedro River in September 2014. The spill originated in Mexico where flooding rains from Hurricane Odile forced a toxic water spill over from containment reservoirs into the San Pedro River. The San Pedro River enters the United States at Sierra Vista, Arizona. It became clear, after significant water quality testing, that no Forest Service emergency response resources would be required.

Financial Highlights

FY 2014 Wildland Fire Management Appropriation

The DOI and Forest Service wildland fire management programs were funded for FY 2014 by the Consolidated Appropriations Act, 2014, signed into law on January 17, 2014, as Public Law 113-76.

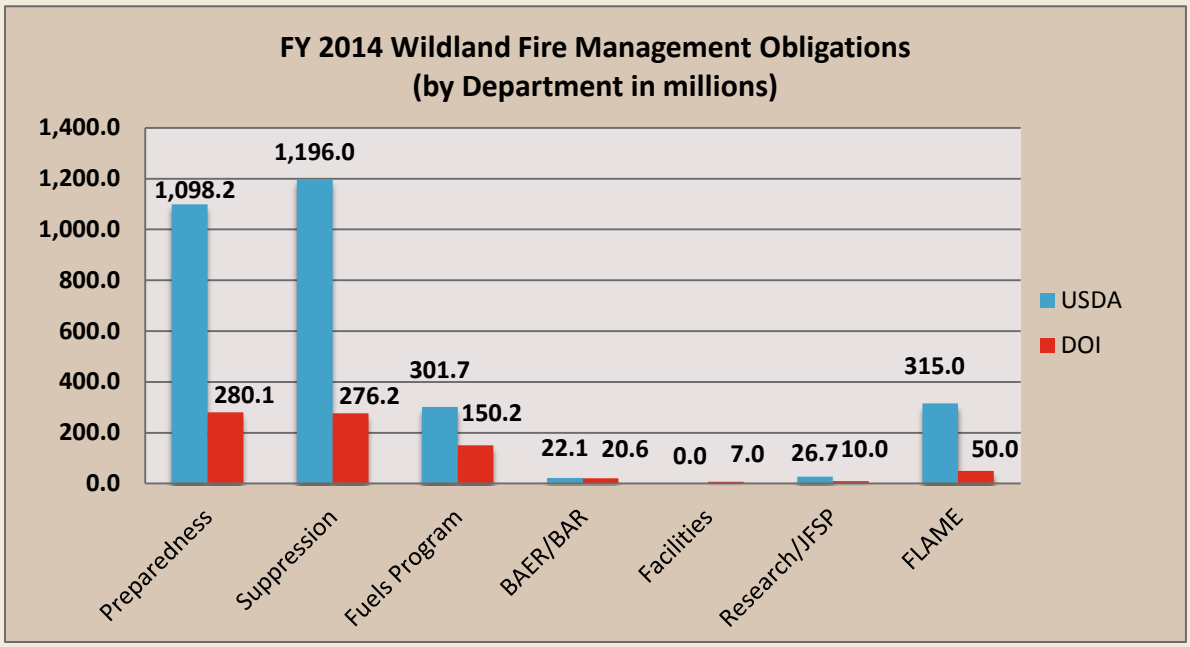
The FY 2014 Wildland Fire Management Appropriation provided funding to maintain sufficient wildland firefighting resources for the wildfire season, including nearly 14,000 firefighters, over 800 firefighting aircraft, 1,600 engines, and 400 other pieces of heavy equipment used in wildland firefighting, including dozers, water tenders, etc.

The Appropriations for FY2014 covered funding for suppression based on the 10-year suppression average along with funding for preparedness, fuels management, post-fire rehabilitation and restoration, science and other program components of the Federal wildland fire management program.

The Federal Land, Management, and Enhancement (FLAME) Wildfire Suppression Reserve Fund was established in the 2010 Appropriations Act to fund more severe or complex fires. The fund serves as a contingency to suppression funds. In 2014, $50.0 million was transferred to the suppression account for the DOI and $315 million for the Forest Service.

Wildland Fire Management Obligations

Figure 1 - FY 2014 Wildland Fire Management Obligations by Department and Program Area[2], [3]



[2] In Figure 1, Research obligations for the Forest Service reports the combined Research and Development and Joint Fire Science Program obligations rounded to the nearest thousands.

[3] The Suppression obligation figure reported in Figure 1 is inclusive of those figures reported for Burned Area Emergency Rehabilitation (BAER)/Burned Area Rehabilitation (BAR) and FLAME. BAER/BAR and FLAME are included in Figure 1 for reference purposes only.

Table 1 – FY 2014 Distribution of the DOI Obligations by Bureau/Office (in millions)

Bureau	Preparedness	Suppression	Fuels Program	BAR[4]	BAER	Facilities
BIA	50.8	53.2	29.7	7.7	0.0	.5
BLM	160.2	211.3	74.8	9.5	0.0	3.0
FWS	26.9	9.4	20.7	1.1	0.0	.4
NPS	36.2	52.2	21.4	2.3	0.0	3.1
OS	6.0	.1	3.6	0.0	0.0	0.0
Total	**280.1**	**326.2**	**150.2**	**20.6**	**0.0**	**7.0**

Table 2 – FY 2014 Distribution of the USDA Obligations by Agency (in millions)

Agency	Preparedness	Suppression	Fuels Program	BAER	Research/ Development/JFSP[5]
USFS	1,098.2	1,196.0	301.7	22.1	26.7

Table 3 - FY Comparison of Obligations by Department (in millions)[6]

Fiscal Year	Agency	Preparedness	Suppression	Fuels Program	BAER/ BAR[7]	Facilities	NFP Research Development	JFSP
2014	USFS	1,098.2	1,196.0	301.7	22.1	0.0	19.8	6.9
	DOI	280.1	326.2[8]	150.2	20.6	7.0	0.0	10.0[9]
2013	USFS	1,026.7	1,356.6	293.7	25.6	0.0	.7	6.4
	DOI	266.2	399.2	137.6	12.0	5.5	0.0	5.3
2012	USFS	1,013.2	1,436.6	295.3	48.2	0.0	21.9	4.7
	DOI	286.4	465.8	185.9	35.8	5.7	0.0	9.6
2011	USFS	698.7	1,414.4	343.6	48.1	0.0	23.5	4.6
	DOI	296.5	318.8	188.8	13.5	4.7	0.0	10.5
2010	USFS	702.4	897.7	348.2	10.8	0.0	24.4	5.6
	DOI	292.0	231.2	212.1	14.9	9.7	0.0	10.1
2009	USFS	685.9	1,018.3	541.6	13.8	0.0	24.4	4.8
	DOI	286.5	218.4	215.4	27.9	7.1	0.0	6.4
2008	USFS	632.7	1,458.8	364.5	33.7	0.0	21.4	1.3
	DOI	282.4	392.8	223.2	29.3	6.4	0.0	9.2
2007	USFS	681.2	1,374.0	310.6	28.8	0.0	26.9	0.0
	DOI	280.0	470.4	203.9	28.9	8.8	0.0	6.3
2006	USFS	632.2	1,501.0	274.3	13.1	0.0	22.6	0.0
	DOI	269.5	424.1	207.1	22.9	5.8	0.0	7.5
2005	USFS	676.1	690.0	294.5	9.6	0.0	21.7	0.0
	DOI	270.3	294.1	207.9	15.0	13.6	0.0	7.8

[4] Burned Area Rehabilitation (BAR) and Burned Area Emergency Rehabilitation (BAER) program funding comes from the Suppression accounts of DOI and USFS respectively.

[5] DOI's Joint Fire Science funding includes a USFS transfer in addition to DOI Appropriation funds.

[6] USFS hazardous fuels program funding in 2012 – 2014 excludes funds transferred to the Integrated Resource Restoration program.

[7] DOI BAR and FS BAER (Emergency Stabilization) costs of $20.1 million and $22.1 million respectively for FY 2014 are included in the total Suppression Obligations reported.

[8] DOI's Severity Costs of $7.5 million for FY 2014 are included in the total Suppression Obligations reported.

[9] DOI's Joint Fire Science funding includes a Forest Service transfer in addition to DOI Appropriation funds.

FY 2014 Wildland Fire Statistics

The numbers of fires and acres burned during the FY 2014 wildfire season were significantly below the 10-year average. A combination of wet weather events and increased fuels moistures resulted in a normal to below-normal fire season across most of the United States. Only the Pacific Northwest and Northern California geographic areas experienced an above-normal fire season, both driven by a combination of extended drought conditions, dry fuels, and wind and lightning events.

Estimated Numbers of Fires and Acres Burned[10]

Nationally, by the end of September 2014, over 49,000 fires burned over 3.9 million acres compared to the 10-year average of over 75,000 fires and nearly 9.4 million acres burned. By comparison, last year nearly 51,000 fires were reported and close to 5.8 million acres burned by the end of September.

Figure 2 - FY 2014 Numbers of Fires by Department/Organization

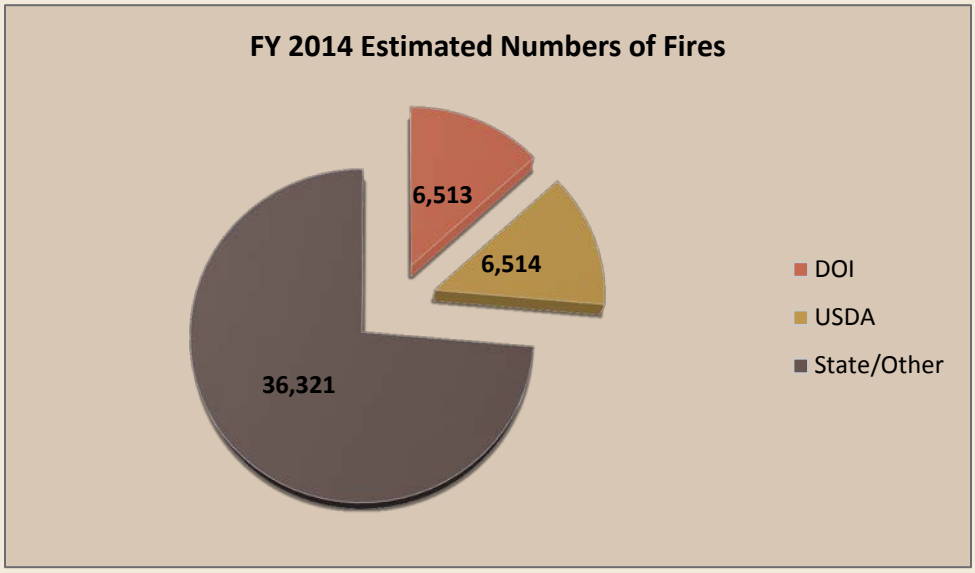


Table 4 – FY 2014 DOI Numbers of Fires by Bureau

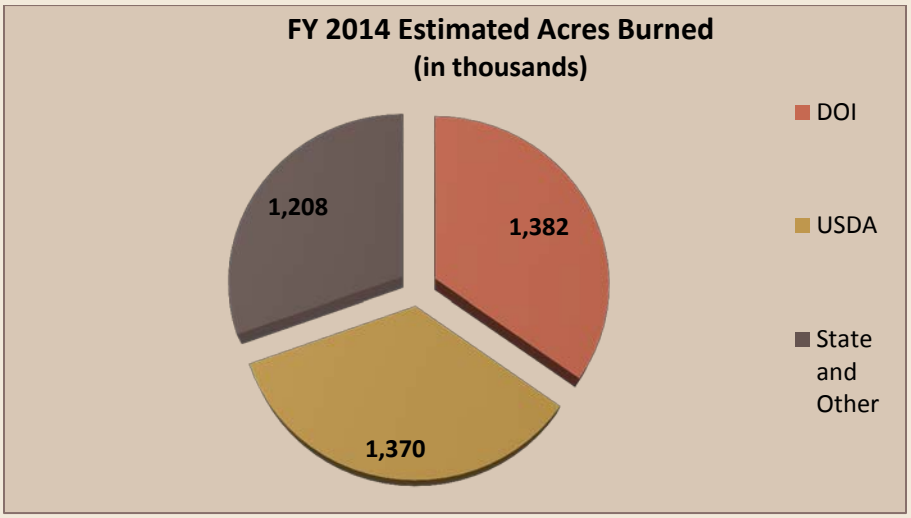
DOI Bureau	Numbers of Fires
Bureau of Indian Affairs (BIA)	3,795
Bureau of Land Management (BLM)	1,912
U. S. Fish and Wildlife Service (FWS)	453
National Park Service (NPS)	353
Total (DOI)	**6,513**

[10] FY 2014 estimated numbers of fires and acres burned statistics cited in this section of the report were obtained from WFMI for NPS and BIA; from FMIS for FWS; NICC 2014 Daily Situation Reports from October 1, 2013, December 27, 2013, and October 1, 2014. Final fire numbers will be available in January 2015.

Table 5 - 10-year Comparison of Numbers of Fires (by Agency and Fiscal Year)

Fiscal Year	BIA	BLM	FWS	NPS	State/Other	USFS	Total
Est. 2014	3,795	1,912	453	353	36,321	6,514	49,348
2013	3,794	4,047	384	727	33,820	7,857	50,629
2012	6,428	4,543	430	755	51,129	7,566	70,851
2011	4,918	4,201	408	911	59,527	7,970	77,935
2010	4,325	3,729	292	688	58,324	6,697	74,055
2009	5,147	4,159	339	775	63,307	8,145	81,872
2008	5,492	4,024	376	751	64,140	7,603	82,386
2007	5,505	6,757	481	896	69,128	9,186	91,953
2006	8,716	7,143	556	1,013	74,305	11,429	103,162
2005	6,327	5,400	549	771	50,727	7,490	71,264
10-yr Avg.	5,440	4,592	427	764	56,073	8,046	75.341

Figure 3 - FY 2014 Acres Burned by Department/Organization



6 - FY 2014 DOI Acres Burned by Bureau (in thousands)

DOI Bureau	Acres Burned
BIA	350.2
BLM	902.0
FWS	56.0
NPS	74.0
Total DOI	**1,382.2**

Table 7 - 10-year Comparison of Numbers of Acres Burned by Agency (in Thousands, by Fiscal Year)

Fiscal Year	BIA	BLM	FWS	NPS	State/Other	USFS	Total
Est. 2014	327.0	902.0	55.5	74.1	1,208.0	1,370.0	3,937.0
2013	216.2	2,098.3	147.5	419.4	1,363.8	1,534.1	5,779.3
2012	901.7	5,026.3	96.4	316.1	2,205.7	3,328.5	11,874.7
2011	483.9	1,847.5	455.9	1,015.7	5,387.7	1,965.9	11,156.6
2010	659.3	1,908.2	248.4	192.4	1,803.4	378.9	5,190.6
2009	764.3	3,503.9	612.0	386.8	3,012.6	883.4	9,163.0
2008	234.7	1,187.4	123.4	172.8	3,373.7	2,228.6	7,320.6
2007	260.7	3,536.2	606.2	166.5	3,601.4	3,319.9	11,490.9
2006	577.0	3,977.8	243.9	678.9	4,883.9	2,748.9	13,110.4
2005	1,866.3	7,010.5	1,957.3	707.7	2,150.8	1,151.6	14,844.2
10-Yr Avg.	629.0	3,100.0	455.0	413.0	2,899.0	1,891.0	9,387.0

Fuels Management Program

A prescribed fire is ignited during the Rocky Canyon Prescribed Fire Operation on the Boise National Forest in Idaho (Photo Credit: Kari Greer Photography)

The purpose of the DOI and Forest Service fuels management programs is to reduce the risks of wildland fire to people, communities, and natural resources while restoring forest and rangeland ecosystems to closely match their historical structure, function, diversity, and dynamics. Fuels treatments accomplish these goals by removing or modifying wildland vegetation to reduce the potential for severe wildland fire behavior, lessen the post-fire damage, and limit the spread or proliferation of invasive species and diseases. Treatments are accomplished using prescribed fire, mechanical thinning, herbicides, grazing, or combinations of these and other methods. Treatments are being increasingly focused on the expanding wildland/urban interface areas. Fuels management improves the health and resilience of our forests and rangelands, contributes to community adaptation to fire, and improves the ability to safely and appropriately manage wildfire.

The Departments' programs are aligned with the three goals of the National Cohesive Wildland Fire Management Strategy to:

- support healthier, resilient ecosystems and provide many benefits to society, including clean water, scenic and recreational values, wood products, and biodiversity;
- be committed to safer, more resilient communities; and
- respond safely and effectively to wildfire.

Figure 4 - FY 2014 Fuels Treatment Accomplishments (by Federal Bureau/Agency, in thousands of acres)

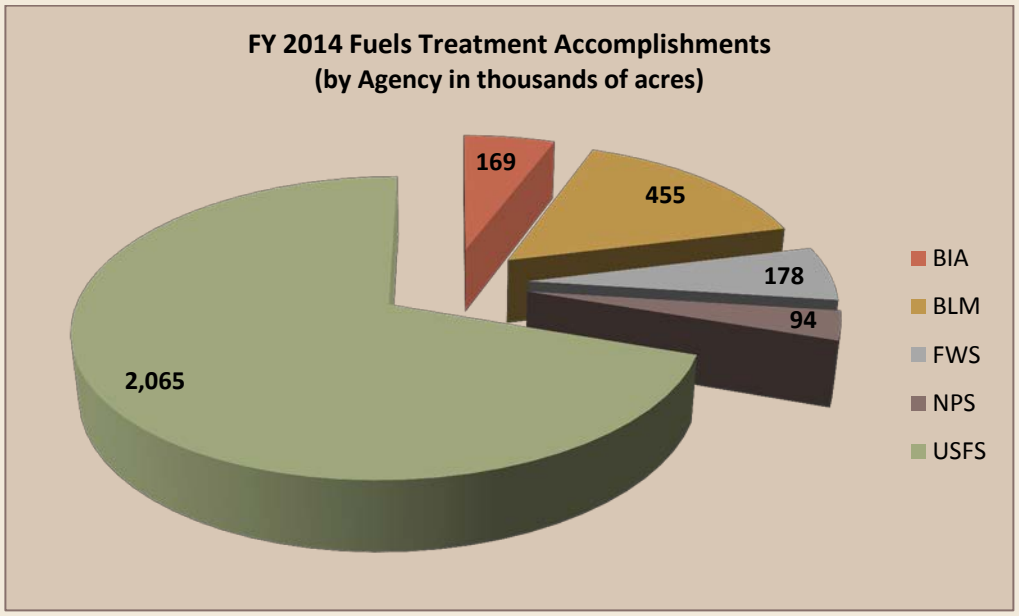


Table 8 - 10-Year Comparison of Fuels Treatment Accomplishments (by Bureau/Agency, in thousands)[11]

Fiscal Year	BIA	BLM	FWS	NPS	BOR	USFS	Total
2014	168.7	455.2	178.2	94.2	0.00	2,065.3	2,961.6
2013	161.6	248.0	108.6	124.9	0.00	1,911.8	2,554.9
2012	166.6	468.0	206.9	158.5	0.00	1,893.1	2,893.1
2011	232.4	400.8	155.9	201.0	0.10	1,876.6	2,866.8
2010	293.9	436.0	379.4	195.5	0.00	2,779.4	4,084.2
2009	280.1	533.4	432.9	252.7	0.06	2,747.4	4,246.6
2008	239.1	452.2	431.0	137.0	0.00	2,571.7	3,831.0
2007	214.4	495.9	413.3	209.9	0.00	690.1	4,023.6
2006	187.7	419.4	373.9	116.6	0.00	2,690.8	3,788.4
2005	193.6	503.0	415.6	154.0	0.00	2,606.5	3,872.7
10-Yr Avg.	213.8	441.2	309.6	164.4	0.08	2,433.7	3,562.7

[11] Fuels Treatment Accomplishment information was obtained from the National Fire Plan Operations and Reporting System (NFPORS). The DOI includes National Fire Plan (NFP) Key Point 3 (Hazardous Fuels Reduction) fuels treatments only. The Forest Service includes NFP Key 3 and 6 (non NFP treatments). Acres for preparation of treatments and acres from resource benefit wildfires are excluded.

Fatal and Non-fatal Serious Accidents[12]

Fatal Accidents

In FY 2014, nine wildland firefighter fatalities in the line of duty were reported across the United States. The 10-year average stands at 17 fatal accidents a year. Of the nine fatal accidents during FY 2014, one Federal (Forest Service) wildland firefighter was involved.

Entrapments and Non-Fatal Serious Accidents

Sixty-seven wildland firefighters were involved in non-fatal serious accidents during FY 2014. Of those 67 firefighters, 30 were Federal wildland firefighters. Eighteen (18) Forest Service and 12 DOI firefighters were involved non-fatal serious accidents.

Noted Non-fatal Accident Trends

- Three entrapments/burnovers were reported involving 25 (state/other) firefighters; two of the incidents resulted in injuries to the firefighters involved
- Thirteen driving-related accidents were reported, resulting in injuries to and/or hospitalization of 10 firefighters (9 Federal; 4 state/other)
- Nine hazard tree related accidents were reported, all of which resulted in hospitalization of the nine firefighters involved (7 Federal; 2 state/other)
- A total of 20 medical emergencies were reported—five burn-related injuries. All 20 instances required either treatment and/or hospitalization. Two of the five burn victims were Federal firefighters. Twelve (12) of the 15 non-burn related medical emergencies were Federal firefighters.
- More than half of the 20 medical emergencies reported were either attributed to a diagnosis of a heart attack or Rhabdomyolysis[13]
- In FY 2014, the number of non-fatal serious accidents (all agencies) increased nearly five-fold
- Federal non-fatal serious accidents nearly doubled from 2013 to 2014

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[12] Fatalities and non-fatal serious accidents for 2014 are reported according to fiscal year—October 1, 2013 through September 30, 2014, rather than calendar year (January 1 to December 31) as has been reported in past reports

[13] Rhabdomyolysis is the breakdown of muscle tissue that leads to the release of muscle fiber contents into the blood. These substances are harmful to the kidney and often cause kidney damage. (Medline Plus—National Institute of Health)

Table 9 - FY 2014 Fatal Accidents (All Bureaus/Agencies)

Fiscal Year	Agency	Burnover/ Entrapment	Driving	Hazard Tree	Aviation	Medical Emergency	Total
2014	USFS	0	0	0	0	1	1
	Interior	0	0	0	0	0	0
	State/Other	0	1	1	1	6	8
2014 Total		**0**	**1**	**1**	**1**	**6**	**9**
2013	USFS	0	1	2	0	1	4
	Interior	0	1	0	1	3	5
	State/Other	19	3	0	0	3	25
2013 Total		**19**	**5**	**2**	**1**	**7**	**34**
2012	USFS	0	0	0	0	1	4
	Interior	0	1	1	2	0	4
	State/Other	0	1	0	4	5	10
2012 Total		**0**	**2**	**1**	**6**	**6**	**15**
2011	USFS	0	0	0	0	0	0
	Interior	0	0	0	0	2	2
	State/Other	4	2	1	0	2	9
2011 Total		**4**	**2**	**1**	**0**	**4**	**11**
2010	USFS	0	0	0	0	0	0
	Interior	0	0	0	0	0	0
	State/Other	0	3	0	0	5	8
2010 Total		**0**	**3**	**0**	**0**	**5**	**8**
2009	USFS	0	0	0	4	0	4
	Interior	0	0	1	1	0	2
	State/Other	0	3	0	1	5	9
2009 Total		**0**	**3**	**1**	**6**	**5**	**15**
2008	USFS	0	1	0	9	0	10
	Interior	0	0	1	1	0	2
	State/Other	1	5	0	4	3	13
2008 Total		**1**	**6**	**1**	**14**	**3**	**25**
2007	USFS	0	2	0	1	0	3
	Interior	0	0	0	0	0	0
	State/Other	0	2	1	0	3	6
2007 Total		**0**	**4**	**1**	**1**	**3**	**9**
2006	USFS	5	0	0	6	1	12
	Interior	1	0	0	0	0	1
	State/Other	1	4	1	8	4	11
2006 Total		**7**	**4**	**1**	**8**	**4**	**24**
2005	USFS	0	0	0	3	0	3
	Interior	0	0	0	0	0	0
	State/Other	1	3	1	0	4	9
2005 Total		**1**	**3**	**1**	**3**	**4**	**12**
2004	USFS	0	1	0	1	1	3
	Interior	0	0	1	1	0	2
	State/Other	1	5	0	1	8	15
2004 Total		**1**	**6**	**1**	**3**	**9**	**20**
10-yr Avg.		**4**	**4**	**1**	**4**	**5**	**17**

Figure 5 - FY 2014 Fatal Accidents (by Type)

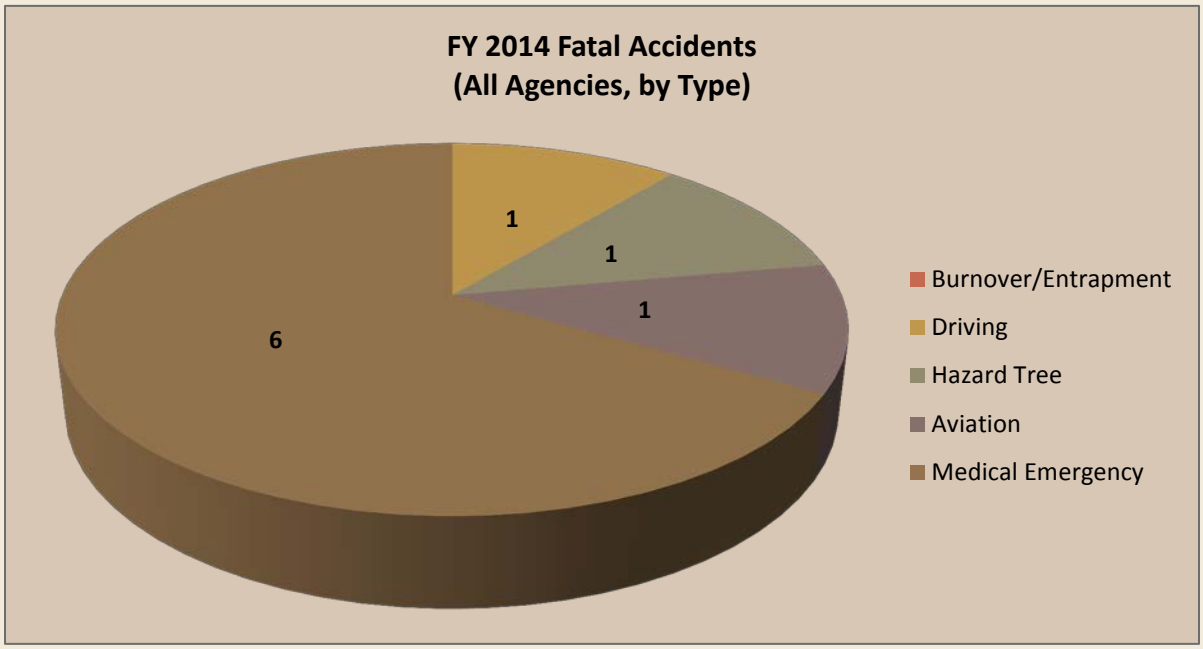


Figure 6 - Non-Fatal Accident Comparison, All Agencies (2013 - 2014)

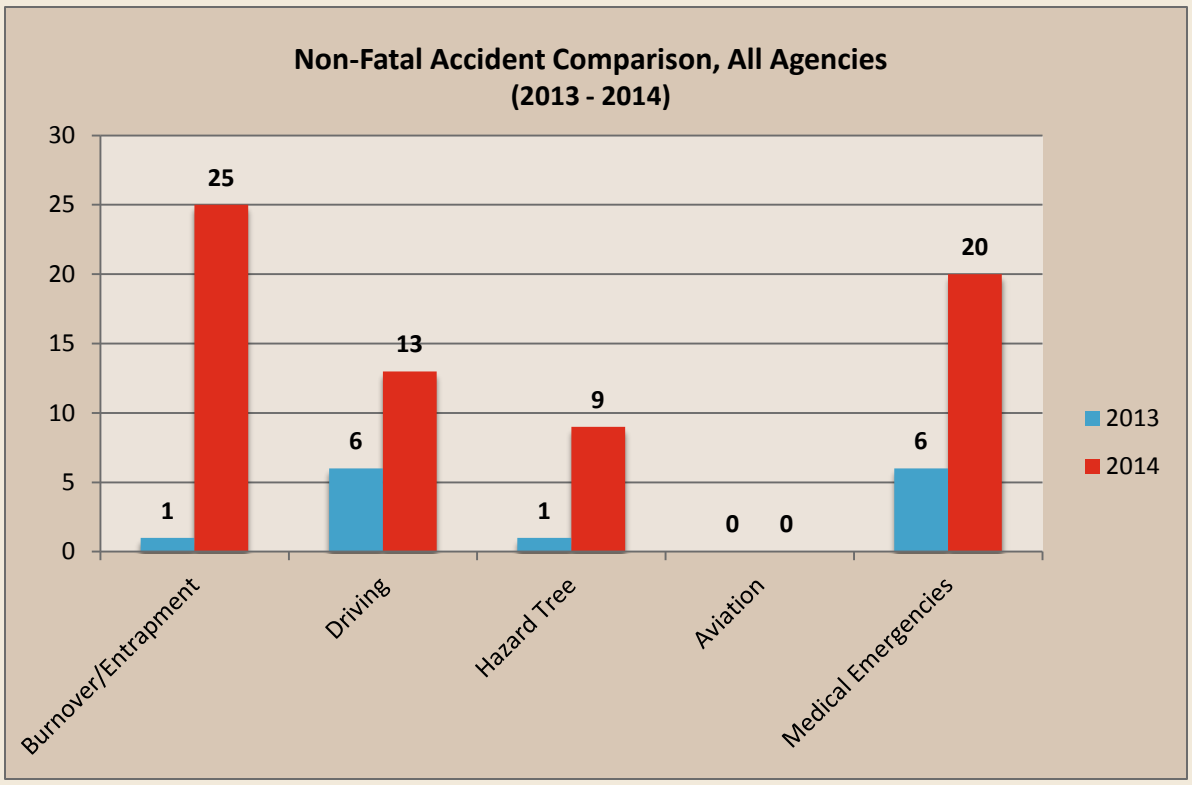
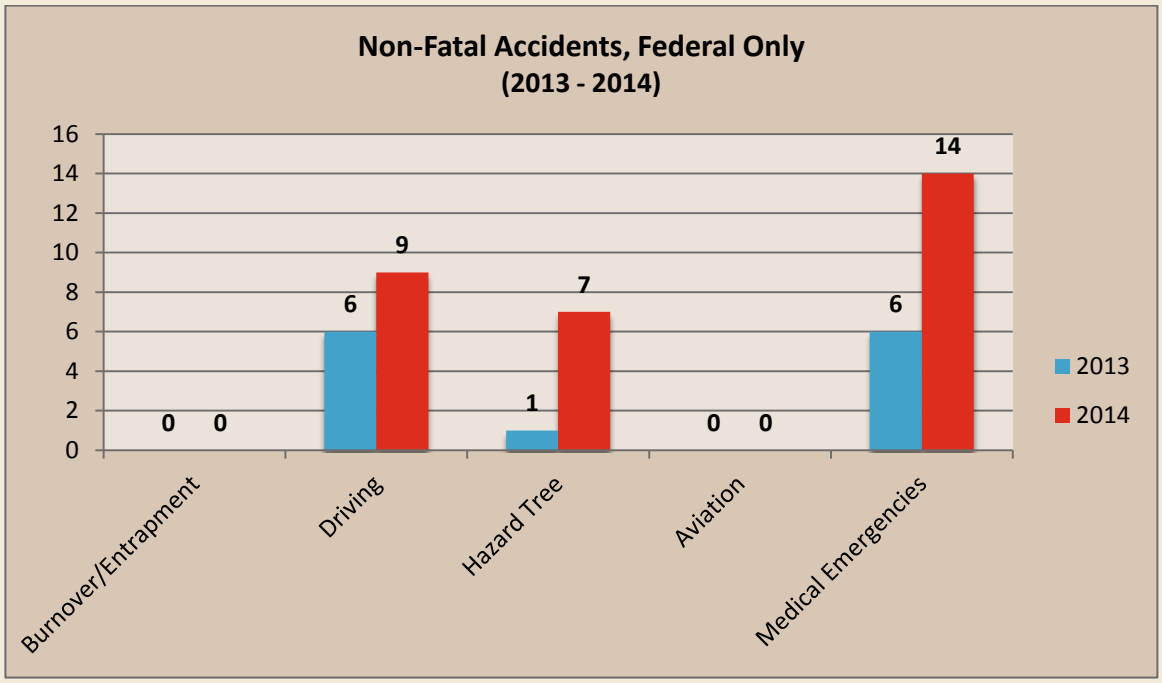


Figure 7 - Non-Fatal Accidents, Federal Only (2013 - 2014)



Annually, firefighters (wildland and structure) lost in the line of duty from across the United States the previous year, are honored during a ceremony at the National Fallen Firefighters Memorial in Emmitsburg, Maryland. This year, 34 wildland firefighters were honored—nine of which were Federal wildland firefighters.

Table 10 - 10-Year Comparison of Non-Fatal Accidents, All Bureaus/Agencies (2005 - 2014)

Year[14]	Agency	Burnover/ Entrapment	Driving	Hazard Tree	Aviation	Other Emergency	Total
2014	USFS	0	6	6	0	6	18
	Interior	0	3	1	0	8	12
	State/Other	25	4	2	0	6	37
2014 Total		**25**	**13**	**9**	**0**	**20**	**67**
2013	USFS	0	4	1	0	2	7
	Interior	0	2	0	0	4	6
	State/Other	1	0	0	0	0	1
2013 Total		**1**	**6**	**1**	**0**	**6**	**14**
2012	USFS	9	0	1	4	1	15
	Interior	7	1	3	0	1	12
	State/Other	18	11	3	0	3	35
2012 Total		**34**	**12**	**7**	**4**	**5**	**62**
2011	USFS	13	11	1	0	3	28
	Interior	2	3	0	0	0	5
	State/Other	24	2	0	0	0	26
2011 Total		**39**	**16**	**1**	**0**	**3**	**59**
2010	USFS	5	0	0	0	5	10
	Interior	2	0	2	0	4	8
	State/Other	12	4	2	0	4	22
2010 Total		**19**	**4**	**4**	**0**	**13**	**40**
2009	USFS	1	9	2	0	4	16
	Interior	12	0	2	0	3	17
	State/Other	24	13	1	0	6	44
2009 Total		**37**	**22**	**5**	**0**	**13**	**77**
2008	USFS	4	10	2	4	3	23
	Interior	0	0	4	0	3	7
	State/Other	18	35	0	0	13	66
2008 Total		22	45	6	4	19	96
2007	USFS	21	22	3	0	2	48
	Interior	1	5	0	0	1	7
	State/Other	33	9	0	0	5	47
2007 Total		55	36	3	0	8	102
2006	USFS	13	16	0	0	0	29
	Interior	22	11	0	0	6	39
	State/Other	23	6	0	0	0	29
2006 Total		**58**	**33**	**0**	**0**	**6**	**97**
2005	USFS	5	0	0	0	0	5
	Interior	3	0	0	0	0	3
	State/Other	6	7	0	0	0	13
2005 Total		**14**	**7**	**0**	**0**	**0**	**21**

[14] Beginning 2014, fatal and serious accidents are reported based on fiscal year (October 1 – September 30), rather than calendar year, to meet annual reporting deadlines of December 31. Prior to 2014, fatal and serious accidents were reported on a calendar year (January 1 through December 31.

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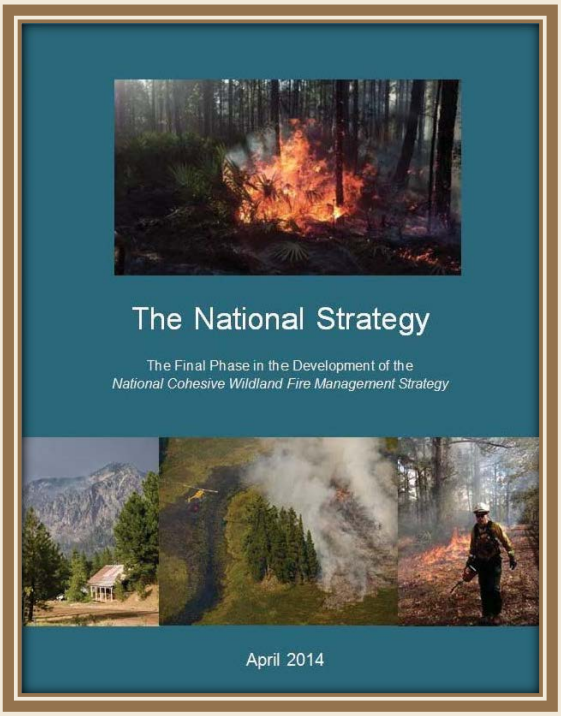
Major Department Program Initiatives

Joint Initiatives – The Department of the Interior and Forest Service

National Cohesive Wildland Fire Management Strategy



On April 9, 2014, the Secretaries of the DOI and USDA signed and released, *The National Strategy: The Final Phase in the Development of the National Cohesive Wildland Fire Management Strategy*, bringing to a close the three-phased collaborative effort to develop a strategy that evaluates our nation's most significant wildland fire management issues and establishes a path forward to address those issues. The National Strategy sets simple but powerful national strategic direction, providing a framework for planning and implementation at various scales—across all lands, jurisdictions, and interests.

The National Strategy reaffirms that all stakeholders must redeem their responsibilities while ensuring coordination with partners. Therefore, Federal, Tribal, territorial, state, and local governments, and non-governmental partners, private property owners, and public stakeholders will increase efforts to work together across all lands to take the necessary actions to achieve the goals of the National Strategy—to restore and maintain resilient landscapes across all jurisdictions; prepare communities so they can live with and withstand a wildfire without loss of life and property; and safely, effectively, and efficiently respond to wildfires when they occur.

The principles and philosophy of the National Strategy are reflected in many ongoing activities of the DOI, Forest Service, and our partners. The Departments are committed to continuing and strengthening those efforts and expanding the implementation of the National Strategy to achieve greater success in the future.

2014 Quadrennial Fire Review

The 2014 Quadrennial Fire Review (QFR) is the latest in a series of strategic interagency reviews conducted on a four-year cycle. The QFR is tailored after the U. S. Military's Quadrennial Defense Review process and is coordinated between the Forest Service, Fire and Aviation Management, and the DOI, Office of Wildland Fire.

The 2014 QFR is the third iteration of a strategic assessment process and complements other wildland fire strategic planning efforts, such as the National Cohesive Wildland Fire Management Strategy. The QFR, however, applies a Federal perspective on a long-term horizon (10 to 20 years in the future), while also taking the needs and conditions of the larger interagency wildland fire community into account.

The 2014 QFR, due to be released in February 2015, is organized around four themes:

1. Climatic Conditions
2. Public and Firefighter Safety
3. Water Quality and Quantity
4. Technology and Program Infrastructure

The 2014 QFR process entailed analysis of:

- past QFR results (2004 and 2009),
- science literature, program reports and documents,
- expert interviews,
- proceedings from multiple 2014 QFR workshops, and
- engagement of both traditional and non-traditional stakeholders through a cost effective process called, "crowdsourcing."

Results are expected to include a number of key strategic findings, along with descriptions of plausible "alternative future" scenarios (based on variations in potential wildland fire impacts and levels of the Federal program effort).

Wildland Fire Information and Technology

The Wildland Fire Information and Technology (WFIT) framework provides an enterprise approach to managing the wildland fire information technology investment portfolios of the Forest Service and the DOI, in partnership with state partners. WFIT provides cohesive, repeatable processes to meet interdepartmental, interagency fire business needs and IT requirements.

Success of the WFIT investment management process requires coordination and integration with the fire agencies and the Department-level investment management and budget management processes. It maintains the integrity of the reporting relationships within the Forest Service and the DOI wildland fire management programs and personnel.

The WFIT Investment Management Overview outlines roles and responsibilities for program.

Under the WFIT framework, a multi-year Roadmap is under development. This Roadmap will be based on a comprehensive review of wildland fire business processes, with an emphasis on the collection, enhancement, display, and storage of data needed by the wildland fire community.

Joint Fire Science Program

The Joint Fire Science Program (JFSP) was established by the U.S. Congress in 1998 as a partnership between the USDA and the DOI to support applied research focused on fuels mapping and treatment, fire effects and behavior, and monitoring and evaluation. Subsequent legislation in 2002 added restoration of

fire-adapted ecosystems, post-fire stabilization and rehabilitation, remote sensing, and development and integration of research information for local land managers.

JFSP is set apart from other fire research funding entities in that the emphasis centers on addressing manager-driven questions. JFSP has provided support to over 650 projects at nearly 100 colleges and universities with annual funding that has ranged from $8 million to $16 million over the years. JSFP funds are not used to support Federal salaries; however, the operating expenses of these projects often seed collaborative activities that are extensively leveraged by other sources. Projects are selected through open solicitation and peer review. The role JFSP plays in the fire science arena is much larger than its direct funding of projects. Its investment strategy and research questions to be addressed set the agenda for other fire science programs.

In 2014, JFSP funded 42 research studies on topics including:

- fuels treatment effectiveness across landscapes;
- influence of past wildfires on wildfire behavior, effects, and management;
- contribution of smoke emissions to secondary organic aerosols;
- effects of smoke from wildland fires on human health in urban centers;
- compatibility of fire and fuel treatments with threatened and endangered bats;
- effects of wildfire on water; and
- fuels treatment effectiveness: landscape-level and programmatic economics.

JFSP supports a national collaborative science delivery network – 15 groups of scientists, practitioners and managers whose goal is to accelerate the awareness, understanding, and adoption of wildland fire science information by Federal, Tribal, state, local governments and private stakeholders within ecologically similar regions.

Forest Service Research

To better equip managers to deal with wildland fires, Forest Service fire scientists develop and provide knowledge and tools that help reduce the negative impacts of wildfire while enhancing the beneficial effects of fire and fire management on society and the environment. The research focuses on understanding and modeling fundamental fire processes, interactions of fire with ecosystems and the environment, social and economic aspects of fire, evaluating integrated management strategies and disturbance interactions, and applying fire research to management problems.

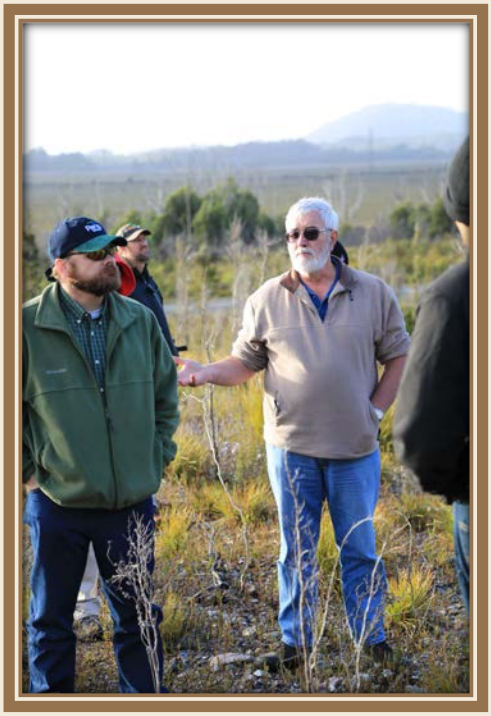
Since the early 1900s, Forest Service fire research has played a vital role in the agency's fire and fuels management program. The results and products from this work are used by managers in making tactical firefighting decisions, in prioritizing and implementing fuel hazard reduction projects, in smoke forecasting, in

rehabilitating and restoring land after severe wildfire, and in providing information to home owners in the wildland-urban interface.

There are five current emphasis areas of Forest Service fire and fuels research:

1. Physical Fire Science: basic fire science, including physical fire processes, the characteristics of fire at multiple scales, and fire danger assessment
2. Ecological and Environmental Fire Science: fire effects on ecosystem components, and fire and environmental interactions
3. Social Fire Science: public interactions with fire and fuels management, socioeconomic aspects of fires and fuels management, and organizational effectiveness
4. Integrated Fire and Fuels Management Science: management strategies at multiple scales, treatment and disturbance effects on ecosystem components, and forest operations, including biomass utilization and product development associated with fire and fuel management activities
5. Science Delivery: ensuring that knowledge generated by Forest Service scientists reaches groups and individuals who will benefit from it, including policy makers, wildland fire managers, and local communities

International Fire Program



International cooperation in suppression and support of wildland fire incidents has been a decades-long program. It is the result of long standing, codified international agreements/arrangements and accompanying operating plans, couple with the willingness of nations to assist each other for the common good and develop strong trusting relationships. It precipitated the development of common expectations and qualifications of personnel, as well as the sharing of wildland fire management techniques, advancements in science based research, and the acceptance of a common operating picture.

The International agreements/arrangements currently in place include:

1. ***The United States of America and Canada:*** The arrangement in the form of an Exchange of Notes between the Government of Canada and the Government of the United States of America allows for the suppression of fire occurring within the border region of both countries (defined as 10 miles on each side of the border) and provides a process for requesting and ordering resources for support of fires outside the border region.

2. ***The United States of America and Mexico:*** The Wildfire Protection Agreement between the U. S. Departments of Agriculture and Interior and the Secretariat of Environment, Natural Resources, and Fisheries of the United Mexican States for the Common Border allows for the suppression of fire occurring within the border region of both countries (defined as 10 miles on each side of the border). Support for fires outside this border area must be submitted through the auspices of the Office of Foreign Disaster Assistance (OFDA).

3. ***The United States and Australia:*** The Wildfire Arrangement between the U. S. Departments of the Interior and Agriculture and the Australian Participating States allows for the exchange of personnel on a case-by-case basis as the need may arise and available forces are depleted in the ordering nation.

4. ***The United States of America and New Zealand:*** The Wildfire Arrangement between the U. S. Departments of the Interior and Agriculture and the New Zealand Participation Agencies allows for the exchange of personnel on a case-by-case basis as the need may arise and forces are depleted in the ordering nation.

5. ***Regional/Local Unit Agreements and Operating Plans:*** Several Regional/Local unit agreements and Operating Plans exist along both borders. These documents define the actual process for resource exchange and support and are tiered from the National Operating Plan.

National Operating Plans associated with International Agreement/Arrangements were reviewed, updated, and approved prior to the FY 2014 fire season. Revisions and expansion of the agreements with Mexico and Australia are underway and expected to be completed in 2015.

North American Forest Commission – Fire Management Working Group meeting

Representatives of the Forest Service and the DOI attended the annual meeting of the North American Forest Commission – Fire Management Working Group (NAFC-FMWG) in Avandaro, Estado de México, México, in November 2013. NAFC-FMWG is comprised of representatives from the Mexico National Forestry Commission, Mexico National Protected Areas Commission, and the Mexican Nature Conservation Fund; the Canadian Forest Service and California Interagency Forest Fire Center; and the Department of the Interior, Forest Service, and the National Association of State Foresters.

Dale Dague (Forest Service) addressed the International Liaison Committee in Freiburg, Germany. Members of the South Korea Organizing Committee are also pictured.

International Liaison Committee

The Forest Service chaired meetings of the International Liaison Committee (ILC) in October 2013 and June 2014 to finalize plans for the Sixth International Wildland Fire Conference to be held in October 2015 in South Korea.

International Fire Aviation Working Group and Wildland Fire Advisory Group

The International Fire Aviation Working Group and Wildland Fire Advisory Group met in Freiburg, Germany in June 2014, with representatives of the Forest Service participating. The outcome of the meetings included approval of International Fire Aviation Guidelines and discussion of cross-boundary fire management.

Australia-New Zealand Study Tour

During April and May, 2014, the Forest Service, DOI, and the National Association of State Foresters (NASF) participated in the preparation of a Study Tour in Australia and New Zealand. Five Forest Service employees, three DOI employees, and two Canadian and one Mexican representative participated in this five-week educational exchange with hands-on field visits highlighting wildland fire management issues. Every four years since 1951, a delegation from North America travels to Australia and New Zealand, and visitors from Australia and New Zealand tour the U.S. and Canada on a four-year cycle as well—with an exchange between the two hemispheres about every two years. Many important tools and technologies have been adopted based on information gained on these study tours, including the use of the Incident Command System in Australia and New Zealand, the exchange of research, and emergency operational assistance during severe fire seasons among the United States, Australia, and New Zealand. The next study tour is scheduled for 2016, when representatives of Australia and New Zealand will travel to North America.

Other International Efforts

The National Forest Service Director of Fire and Aviation Management was the keynote speaker at the Australasian Fire Authorities Council (AFAC) meeting in New Zealand in September 2014.

Fire and Aviation Management, in cooperation with Forest Service International Programs, assisted in the identification and selection of Forest Service employees as instructors and subject matter experts for training and consultation projects related to wildland fire management and incident command system at numerous international locations. The Chief of Staff for Fire and Aviation Management and a Regional Fire Director traveled to the country of Georgia to review a national fire management planning effort.

FY 2014 International Assistance and Interaction

Saskatchewan provided a Convair 580 heavy airtanker and a Turbo-Commander 690 Bird Dog to the National Interagency Fire Center (NIFC), through an agreement with the Canadian Interagency Forest Fire Centre (CIFFC), for a fire suppression mission use beginning on July 21. The airtanker group remained in place from July 21 until July 30, when it returned to Canada due to increased activity in there.

Saskatchewan Convair 580 heavy airtanker provided fire suppression support to the lower 48 states until it was recalled to Canada due to increased fire activity there. (Photo Credit: Forest Service)

Medical Standards

The DOI and the Forest Service carryout separate, agency specific medical standards/qualification programs for arduous duty wildland firefighters. The programs remain committed to maintaining shared *Federal Interagency Wildland Fire Medical Standards* for positions considered arduous. In 2014, the DOI and Forest Service Medical Standards/Qualifications Programs reaffirmed applicability of the interagency medical standards for both programs by jointly submitting shared *Core Expectations for Arduous Duty Wildland Firefighters* along with a request to the Office of Personnel Management for updates to the medical standards for blood pressure and near vision. The DOI and the Forest Service will continue to work in partnership to have applicable interagency medical standards that apply across both agencies for arduous positions.

Evolving Incident Management

In recognition that the current workforce management and succession planning for wildfire incident management is not sustainable, the National Wildfire Coordinating Group (NWCG) Executive Board initiated the Evolving Incident Management (EIM) Project in January of 2010. The intention of the project is to develop a new organizational model to successfully address the following:

- changing natural environment,
- changing workforce dynamics,
- declining budgets,
- decreasing availability of personnel for team membership, and
- the increasing number of retirements.

A review of the status and progress of the EIM initiative was initiated in 2014 to ensure that the effort meets policy and management needs of federal and non-federal agency leadership. This review sought to validate the original Incident Management Organization Succession Planning Team's case for change, consider new insights or changed conditions following the release of the 2011 EIM final report, and provide recommendations for addressing identified problems and/or issues. A full report to agency leadership is expected in 2015.

Human Performance Factors

In the aftermath of the Yarnell Hill accident in 2013, the DOI and Forest Service undertook an in depth examination of conditions that influence or directly affect actions and decisions and ways to improve performance through systemic improvement and learning. This field of study is generally known as human performance. Senior leadership in the Departments of the Interior and Agriculture, in partnership with the states, commissioned a review of human performance issues and requested recommendations for future investments. As a result, a document known as the *Case for Change* was

developed. The *Case for Change* delineated several broad areas for improvement called major investments including:

- Study how to maximize the technological fixes implemented by understanding the associated human adaptations, for better and for worse;
- Understand and work with culture – build an awareness of the gap between how things are done now and how they *should be done*;
- Study Neuro-psychology; and
- Build a comprehensive fitness system.

Senior fire management leadership endorsed the *Case for Change*. Short- and long-term activities continue to implement the concepts.

Wildland Fire Governance

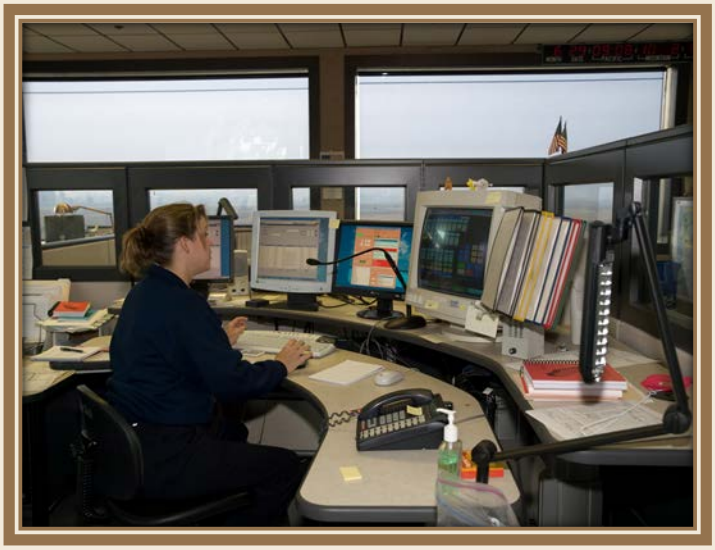
Interagency work continues throughout wildland fire management to strengthen governance mechanisms to clarify roles and responsibilities' and improve the efficiency of coordination, collaboration, and decision making. These groups range from senior agency policy leadership to subject matter experts developing common standards for interoperable fire operations.

Interagency Dispatch Optimization Pilot Project

The DOI and Forest Service continue to pursue improvements to delivery of dispatch services for fire, law enforcement, and resource management personnel while meeting the mission needs of the DOI, Forest Service, Tribes, and state and local stakeholders. The Directors of Fire and Aviation Management and the Office of Wildland Fire have chartered a project to focus on three areas;

1. Computer Aided Dispatch Standardization
2. Interagency Dispatch Operational Guidance Guide
3. Dispatch Governance and Staffing

Work will continue in 2015.



Operational efficiencies, cost savings, and safety enhancements will be realized once improvements are implemented. (Photo Credit: NIFC Photo Gallery)

Department of the Interior Specific Initiatives

Risk Based Wildland Fire Management

The DOI has a responsibility to allocate preparedness[15] and fuels management[16] funding to each of the Department's bureaus (Bureau of Indian Affairs, Bureau of Land Management, U. S. Fish and Wildlife Service, and National Park Service). The Bureaus, in turn, are responsible for implementing and executing the programs in collaboration with other Federal, Tribal, state, and local governmental and non-governmental partners to support the three goals of National Cohesive Wildland Fire Management Strategy.

Firefighters clear brush on the Happy Camp Fire, California. (Photo Credit: Kari Greer Photography)

Current allocations for preparedness among the bureaus generally rely on distribution formulas developed in the 1990s and updated during the funding increases under the National Fire Plan in the early 2000s.

The Fire Planning Analysis (FPA) tool was originally designed and developed to provide science-based tools and capabilities for determining how to allocate funds to provide the most effective, efficient program across the DOI and Forest Service but was unable to fulfill these expectations. The DOI Hazardous Fuels Prioritization and Allocation System (HFPAS) was created to provide a common tool for ranking fuels projects and making allocations to bureaus.

The Forest Service and Interior agreed in FY 2014 to terminate the continued development of FPA. Both agencies determined that the investment was not accomplishing the original objectives and that other alternatives should be pursued. In 2014, the DOI began development of a new approach to build resource requirements and allocate funds for Preparedness and Fuels Management programs, known as Risked Based Wildland Fire Management (RBWFM).

The RBWFM approach is based on three principal concepts or elements:

1. ***Common Methodology for Risk:*** The Office of Wildland Fire will use a common methodology to allocate fuels management and preparedness funds to each bureau in proportion to the amount of risk "owned" by each bureau. The risk will be defined in terms of "expected value acres burned."

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[15] Preparedness activities are those that lead to a safe, efficient, and cost-effective fire management program in support of land and resource management objectives through appropriate planning and coordination.

[16] Fuels Management is the act or practice of controlling flammability and reducing resistance to control of wildland fuels through mechanical, chemical, biological, or manual means, or by fire, in support of land management objectives.

Business rules will be used to guide funding of programs and activities that support multiple bureaus.

2. ***Strategic Business Plan***: Each bureau will prepare a "Strategic Business Plan" that will guide how the bureau applies their share of preparedness and fuels funding to "buy down" and maintain reduced risk to values from wildfire across the landscape. This multi-year plan will allow bureaus to organize and implement fire management programs consistent within the context of the bureau's overall organization, mission, and programs while providing for safety and addressing cost effectiveness and efficiencies (Return on Investment). The Office of Wildland Fire will review and endorse each plan to ensure consistency with the goals of the National Cohesive Wildland Fire Management Strategy and Departmental policies and priorities.

3. ***Performance and Effectiveness Monitoring***: Performance and effectiveness will be measured in terms of reducing risk over time and holding it at reduced, acceptable levels. Each bureau, along with the Office of Wildland Fire, will undertake appropriate review and oversight activities to assess progress. Results will improve the wildland fire management (WFM) preparedness and fuel programs efficiencies and effectiveness.

Completion of the initial capability for RBWFM is targeted for early calendar year 2015. RBWFM will be used for development of future budgets.

Tribal Consultation

President Obama's Memorandum on Tribal Consultation, signed November 5, 2009, and Secretarial Order 3317, *Department of the Interior Policy on Consultation with Indian Tribes* (DOI Policy), issued December 1, 2011, direct Federal agencies to develop a plan to ensure regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications. In 2014, the Office of Wildland Fire developed a Policy Memorandum entitled, *Tribal Consultation and Coordination for the Department of the Interior's Wildland Fire Management Program*. Under this policy, the Office of Wildland Fire will engage in consultation on national-level wildland fire management programmatic and policy matters that may substantially and directly affect Indian Tribes on matters including, but not limited to:

1. Tribal cultural practices, lands, resources, or access to traditional areas of cultural or religious importance on Federally managed lands;

2. The ability of an Indian Tribe to govern or provide services to its members;

3. An Indian Tribe's formal relationship with the Department; or

4. The consideration of the Department's trust responsibilities to Indian Tribes

Individual bureaus with responsibility for implementing and executing the Department's wildland fire management program and activities will follow and adhere to their respective bureau programs and policies for consultation and coordination.

The Department's policy is the cornerstone for the Office of Wildland Fire's tribal consultation and coordination program and reflects ,"the Secretary's commitment to consultation with Indian Tribes, recognition of Indian Tribes' right to self-governance and Tribal sovereignty."

USDA Forest Service Specific Initiatives

Forest Service National Aviation Program

The Forest Service had one reportable aviation accident in FY 2014. Prior to the fixed-wing accident this year, the agency had three consecutive years with no fixed-wing accidents. The Forest Service has had no helicopter accidents for five consecutive years.

The Forest Service Aviation program flew an estimated 60,000 hours during FY 2014, which is below the 10-year average of 70,000 flight hours. The primary mission of the program is to support natural resource protection and conservation through a variety of means, including, but not limited to:

- aerial delivery of firefighters by parachute, rappel rope, or on site landing;
- air tactical command and control;
- surveillance, reconnaissance, and intelligence gathering;
- infrared detection and mapping;
- aerial delivery of fire retardant and water;
- passenger transport for firefighting and resource missions;
- administrative flights;
- research;
- forest rehabilitation;
- forest health protection (aerial surveys, application and photography);
- law enforcement support; and
- aerial photography.

The Forest Service used approximately 500 contracted, government-owned, and/or leased helicopters and fixed-wing aircraft in FY 2014. The Forest Service owns and operates 23 aircraft (20 fixed-wing and 3 helicopters) and leases/operates 15 aerial supervision fixed-wing aircraft.

In FY 2014, the Forest Service had 12 Next Generation airtankers and 6 legacy P-2V airtankers under contract. Next Generation airtankers provide increased aerial firefighting response and capability by flying faster and carrying more fire retardant than the legacy airtankers. They are turbine powered, can carry over 3,000 gallons of retardant, and have a cruise speed of at least 345 miles per hour when fully loaded.

Cooperative Fire Program

Federal Excess Personal Property Program

The Federal Excess Personal Property (FEPP) program is a Forest Service sponsored program that allows the loan of Forest Service-owned property, including much-needed equipment and supplies to state foresters to assist state and rural agencies and volunteer firefighters in preparedness for suppression and pre-suppression missions on Federal, state, and community lands. The program provides items from fire hoses to heavy equipment, thereby, allowing substantial savings to the taxpayers. State foresters and the Forest Service have mutually participated in the FEPP program since 1956.

This Forest Service truck was refurbished and put to use in Wyoming. Repairs were made mechanically; the vehicle was painted and delivered to be used in a fire district! (Photo Credit: Forest Service)

Currently, the inventory property value exceeds $970 million with over 140 operable aircraft and more than 34,000 items on Federal inventory. Nearly $20 million of property items was acquired by 27 state cooperators in FY 2014. The most commonly acquired items were trucks, trailers, tractors, tanks, generators, and pumps to assist firefighters on wildland and brush fires. Many states also acquire tools, building and office supplies, clothing, boots, and field gear to help support their firefighting program.

Vehicles are often modified and used as tenders, tankers, first response vehicles, or command vehicles. Smaller trailers are normally issued to fire departments while large trailers are used to transport equipment to and from the state facilities. Heavy equipment is a popular item for road maintenance and for constructing fire line. Forklifts are acquired to support the state warehouses and load and unload conveyances. Several states have fire boats for the purpose of surveillance, but they can be used for search and rescue when needed. Common durable items such as pumps, tanks, and small generators (with a value less than $5,000) are typically acquired to be placed onto vehicles or trailers. Consumable, low-dollar property items include vehicle and aircraft parts, blankets, boots, gloves, hoses, hand tools, office equipment, and construction materials. Currently, all 50 states and five territories participate in the FEPP program.

Department of Defense Firefighter Property Program

The Federal Firefighter Property (FFP) program was started 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 non-demilitarized items acquired through the FFP program belongs to the recipient. The FFP program's assets are screened at a higher level, therefore, making better quality

and larger quantities of property available to 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.

This 1994 Pierce Fire Truck / Pumper was acquired from Portsmouth Naval Shipyard in Kittery, Maine, and loaned to the Searsport Fire Department. It had only 27,000 miles on it and was in great condition. If bought new, *it would have cost the fire department over $150,000. (Photo Credit: Forest Service)*

Currently, 39 states participate in the FPP program—participants include the states of Alabama, Alaska, Arkansas, Colorado, Connecticut, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Jersey, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Virginia, Washington, West Virginia, and Wyoming.

In 2014, over $160 million in equipment was distributed to 33 states. Through FFP, state cooperators acquired more than 800 vehicles in 2014 with an original acquisition cost of over $95 million. Vehicles are refurbished and equipped with pumps and generators to assist in rural and wildland firefighting. Heavy equipment, trailers, all-terrain vehicles, vehicle and aircraft parts, tools, blankets, and hose are common items acquired in this program.

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Look Ahead to FY 2015

Joint Initiatives – The Department of the Interior and USDA Forest Service

There are several common initiatives the DOI and Forest Service have committed to work together to accomplish in FY 2015.

National Wildland Fire Aviation Strategy

The Forest Service, DOI, and National Association of State Foresters (NASF) developed an interagency fire aviation strategy in December 2007. Subsequently, the Government Accountability Office (GAO) issued a report in August 2013 entitled, *WILDLAND FIRE MANAGEMENT - Improvements Needed in Information, Collaboration, and Planning to Enhance Federal Fire Aviation Program Success* (GAO 13-684). Included in the GAO report were the following three recommended actions:

1. Expand efforts to collect information on aircraft performance and effectiveness to include all types of firefighting aircraft in the federal fleet;

2. Enhance collaboration between the agencies and with stakeholders in the fire aviation community to help ensure that agency efforts to identify the number and type of firefighting aircraft they need reflect the input of all stakeholders in the fire aviation community; and

3. Subsequent to the completion of the first two recommendations, update the agencies' strategy documents for providing a national firefighting aircraft fleet to include analysis based on information on aircraft performance and effectiveness and to reflect input from stakeholders throughout the fire aviation community.

The DOI and USDA concurred with these recommendations and agreed to move forward. Together, and in coordination with wildland fire leadership from each of the DOI bureaus, the Forest Service, and the NASF, the interagency team mapped a path forward with the intent of completing the GAO recommendations in the following order:

- the second recommended action by end of calendar year 2014;
- the first recommended action during the 2015 fire season; and
- the third recommended action prior to fire season 2016.

Sage-Grouse Habitat Conservation Efforts

The DOI, in collaboration with the Forest Service, states, and other partners, is committed to managing wildland fire in the Great Basin in support of conservation of Greater sage-grouse habitat protection. This commitment includes improving preparedness for and response to wildfire, along with investments in fuels management and post-fire treatments to promote long term restoration.

Evolving Incident Management

The Evolving Incident Management (EIM) project team will continue to work toward addressing the concerns and will prepare recommendations for agency leadership.

Human Performance

The DOI and Forest Service will continue to study the conditions that influence or directly affect actions and decisions made by wildland fire managers and firefighters. During FY 2015, the following activities are planned:

- Develop a comprehensive approach to critical incident stress management and peer support;
- Develop a fireline refresher course to address the importance of developing a sensemaking community;
- Develop an online learning forum for ongoing continuing education modules for the wildland fire community.

Wildland Fire Information and Technology

The DOI and Forest Service will continue to implement the Wildland Fire Information and Technology, with emphasis on development of a multi-year Roadmap to guide enterprise investments.

Department of the Interior Specific Initiatives

Risk Based Wildland Fire Management

The DOI will continue to develop and implement Risk Based Wildland Fire Management to provide a consistent, risk based structure for budget formulation and allocation of funds for Preparedness and Fuels Management.

Success Stories

The outcome of the National Cohesive Wildland Fire Management Strategy in April 2014 was far more than a set of documents and implementation tools; it is a commitment to the doctrine that as stakeholders we all share responsibilities for managing our lands, protecting our nation's valuable resources, and promoting individual and collective action for safer and more resilient communities nationwide. The DOI and the Forest Service are just two of the many stakeholders in implementing the vision, goals, and direction established in The National Strategy.

This section of the FY 2014 Wildland Fire Management Report provides some examples of the work completed by the DOI bureaus and Forest Service, accomplished in support of the Cohesive Strategy goals—to restore and maintain resilient landscapes across all jurisdictions; prepare communities so they can live with and withstand a wildfire without loss of life and property; and safely, efficiently, and effectively respond to wildfires when they happen.

Joint Success Story – Department of the Interior and USDA Forest Service

The Bureau of Land Management and Forest Service

Fuels Treatment improves Sage-Grouse Habitat and helps to Control the Black Crook Creek Fire in Utah

The above photo is an example of treated and untreated areas adjacent to the Black Crook Creek Fire in Utah. Treated area has abundant perennial grasses and forbs (Photo Credit: Forest Service)

On June 28, 2014, the Black Crook Creek fire started on the Uinta-Wasatch-Cache National Forest in the vicinity of 800 acres of fuel treatments. Over the past 3 years, the forest has been removing pinyon juniper to restore grassland and sagebrush-steppe habitat. Sage-grouse have been using the treated areas where perennial grasses and forbs have responded well following removal of the dense conifer overstory. As the fire burned into the treatment area, slower rates of spread and lower flame lengths allowed initial attack crews to effectively control the fire. By aiding suppression efforts, minimizing fire size, and creating more resilient wildlife habitat, the treatment helped reduce the impacts to and loss of sage-grouse and mule deer habitat in the area. In fact, post-fire the sage-grouse have been observed in the treated areas.

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Department of the Interior

Bureau of Indian Affairs

San Carlos Apache Tribe uses Integrated Resource Disciplines to Successfully Respond to and Manage Wildfires

San Carlos Apache Tribe, Arizona – Cohesive Strategy Goals: Restore and Maintain Fire Resilient Landscapes; Response to Wildfire

Managing prescribed and natural fire simultaneously was uncommon in the past for the San Carlos Apache Tribe. Today, to the extent possible, integrated resource disciplines are working together to create, restore and maintain resilient landscapes to their pre-settlement conditions. In doing so, these managers have become well-versed at managing wildland fire from a truly risk-based approach, where fire response is linked to fire consequences.

The Skunk Fire produced desirable fire effects at a landscape scale in ponderosa pine forests, juniper woodlands, and semi-desert grasslands (Photo Credit: BIA)

During the 2014 Southwest fire season, San Carlos fire and natural resource managers were presented with opportunities to promote landscape resilience when lightning sparked two wildfires. The Skunk and Basin fires were ignited in April 2014 when burning locations and conditions were still favorable for low fire growth. To accomplish tribal strategic goals targeted at returning desirable wildland fire to landscapes in a cost effective manner and at a scale approaching historical rates, a confine and contain management strategy[17] was chosen for both wildfires. The strategy would also reduce the future risk to tribal forest and range values and protect public and firefighter safety.

Due to the Skunk Fire's remote location on the rocky Nantac Rim escarpment and its limited spread potential, the 13-acre fire was initially managed by monitoring the fire's behavior. Eight miles north of the Skunk Fire, burning within commercial ponderosa pine timber stands, was the higher priority, Basin Fire. Throughout April and early May, the confine management strategy successfully accomplished the tribal

[17] Confine is the strategy employed in appropriate management responses where a fire perimeter is managed by a combination of direct and indirect actions and use of natural topographic features, fuel, and weather factors. Contain is the status of a wildfire suppression action signifying that a control line has been completed around the fire, and any associated spot fires, which can reasonably be expected to stop the fire's spread.

objectives. As burning conditions became less favorable, managers chose to suppress the Fire. It was fully contained May 8 at just over 6,000 acres.

It is worth noting that the San Carlos Fire Use and Fuels Program simultaneously conducted two prescribed fires in April, 15 miles east of the Basin and Skunk Fires. The Point of Pines 1,200 acre thinning/mastication/prescribed burn project provided defensible space for the historic forestry camp and helped restore the natural grassland savanna. Ten miles northeast of Point of Pines, the Bee Flat Prescribed burn was completed, which also finalized an important grassland savanna restoration project.

Meanwhile, by May 8 the Skunk Fire had sprawled to 80 acres. Strong west winds during the afternoon of May 11 followed by breezy overnight north winds on May 12 that continued all that day increased the fire size to 1,822 acres. Weather and drying conditions continued which allowed the fire size to steadily increase until the fire was fully controlled June 13 at nearly 74,000 acres.

Overall, the cost to manage the Skunk Fire was $33 per acre. One can argue that restoring historical fire regimes is a proven "method" of promoting landscape resilience for the San Carlos Apache Tribe.

Bureau of Land Management

Rapid City Veterans Assist BLM in Prescribed Burn

BLM South Dakota Field Office, South Dakota – Cohesive Strategy Goal: Fire Adapted Communities/Community Assistance

On October 20, 2014, the BLM South Dakota Field Office conducted a 454-acre prescribed burn on the Fort Meade Recreation Area. Involved in the burning operation were four Veterans from the Rapid City Fire Department's Wildfire Mitigation Veterans' program. On that day, Dave Ferrier, Jarid Jeske, Cody English, and John Murray were part of the ignition crew—a great opportunity to experience a prescribed burn operation versus the work they do on a fire crew during a wildfire.

Instead of operating chainsaws and chipping slash, the crew was able to spend the day with a drip torch in their hands. They enjoyed the opportunity, as they worked alongside other BLM, U. S. Fish and Wildlife Service, local volunteer fire department, and Rapid City Fire Department personnel.

Veterans from Rapid City program perform ignition operations on prescribed burn at Fort Meade Recreation Area. Bear Butte State Park is in the background (Photo Credit: BLM)

About the Program

Late in 2012, the Montana/ Dakotas Bureau of Land Management asked the communities of Lead, Rapid City, and Meade County, South Dakota, if they would be interested in a new program to place U. S. Military Veterans into fuel mitigation programs. The answer was a resounding "absolutely." The intent was to place Veterans in existing fuel reduction programs to develop their skills in hazard mitigation, safety, hillside operations, chain saw operation, slash pile procedures and, eventually, slash pile burning. These developed skills could then be used when applying for other full-time jobs. Working with the above-mentioned programs, the BLM hoped to support Veterans in a transition from military service back to a civilian life.

Currently in full operation with BLM funding, guidance, and support, these Veterans programs have proven the programs' goals a success. Well received and reinforced by community participation, multiple fire mitigation projects have been completed by our Veterans. The project timeline continues to be booked with vested land owners who understand the benefits offered by the program. Additionally, citizens are thankful to have the opportunity to assist in a program which supports Veterans in a transition from military service to a civilian life.

Additional information on the Rapid City and Meade County Veterans Programs is available online.

U. S. Fish and Wildlife Service

Fuels Treatments Help Save Homes during Funny River Fire

Kenai National Wildlife Refuge, Alaska – Cohesive Strategy Goals: Restore and Maintain Fire Resilient Landscapes; Response to Wildfire

Firefighters conduct a burn-out operation near a fuel break to protect homes in forested subdivisions during the Funny River Fire at Kenai National Wildlife Refuge last spring. (Photo Credit: FWS)

Two fuel breaks, created in advance along a Kenai National Wildlife Refuge boundary as part of the Department's fuels management program, helped save thousands of houses and other structures from destruction during last spring's Funny River Fire. The fire burned nearly 196,000 acres—an area larger than New York City—on Alaska's Kenai Peninsula, home to 60,000 year-round residents in subdivisions surrounded by thick spruce forests and the attendant threat of wildfire.

The communities of Soldotna, Funny River, Kasilof, and Sterling along the Sterling Highway, and nearly 12,000 residents, were in the direct path of the wildfire, which started on May 19 and was pushed by high winds as tourists arrived for Memorial Day weekend.

When the fire's path met the fuel breaks, it slowed and bought firefighters valuable time and space to conduct burn-out operations around several subdivisions. The wildfire, started by human carelessness on May 19 and mostly contained on the refuge by June 7, continued to burn and smolder for more than a month, as it remained in "monitor" status until first snowfall.

"Without these two fuel treatments, it is highly likely homes would have been lost on the northern flank," said Rob Allen, the fire's incident commander from May 20 to June 6.

The fuels treatments reduced fire behavior and provided anchor points for firefighters, enabling and improving the safety of burn-out operations. There would not have been enough time to construct the amount of line needed to perform these operations in the absence of pre-existing fuel breaks.

"Without these two fuel treatments, it is highly likely homes would have been lost on the northern flank," – Incident Commander Rob Allen

While the fire burned mostly on the refuge, it crossed onto non-Federal lands on its northern and western perimeters. No one was injured, and miraculously just four seasonal cabins and two outbuildings were lost,

all in an area inaccessible by road. There is no doubt many more structures would have been lost, were it not for the two fuel treatments conducted in advance by local partners.

"We couldn't have done it without the help of our partners, the Alaska Division of Forestry and Cook Inlet Region Inc. (CIRI)," said refuge manager Andy Loranger.

Funny River Fire burned mostly on the Kenai National Wildlife Refuge but crossed onto non-federal lands on its northern and western perimeters, close to the communities of Soldotna, Sterling, Funny River, and Kasilof. Here, deciduous vegetation and sloughs would slow fire spread in the Kenai Peninsula Borough, but fuels are close to some homes. (Photo Credit: FWS)

CIRI, an Alaska Native corporation, owns private land adjacent to the refuge. Through a cooperative agreement, the Division of Forestry cleared a four and one-half mile long, 200-foot-wide area on CIRI land. On refuge land, a second stretch of thinned understory six and one-half miles long and 100 to 150 feet wide was improved by local contractors into a more aesthetic, shaded fuel break. One of the two fuel breaks was also used effectively as part of a contingency line for the Shanta Creek Fire in 2009.

In the past 10 years, every $1 spent on the two fuels treatments at or near Kenai Refuge produced about $165 worth of residential, commercial and industrial structure protection, according to a fuels effectiveness study conducted by a national team of U.S. Fish and Wildlife Service fuels management specialists. The total investment in fuels reduction on or near the refuge was approximately $1.5 million, which funded 7.5 miles of fuel breaks and protected more than 3,800 structures. These structures were valued at nearly $255 million, according to the latest estimate in Kenai Peninsula Borough's 2004 "All Lands/ All Hands" community action plan. The plan, which involves local organizations and local, state and Federal government agencies, aims to reduce wildfire threat through fuels reduction.

"We couldn't have done it without the help of our partners, the Alaska Division of Forestry and Cook Inlet Region Inc. (CIRI)," said Refuge Manager Andy Loranger

The Funny River Fire provided a learning opportunity that can aid in the development and placement of future fuel treatments. Given fuel types in the area, prevailing winds, likelihood of spotting, and spotting distances, fire managers can weigh the costs and benefits involved in constructing different types of fuel breaks. For more information, see the U. S. Fish and Wildlife's report: Use and Effectiveness of Fuels Treatments during the 2014 Funny River Fire, Alaska.

National Park Service

Interagency Fire Management Zone Receives Midwest Regional Fire Management Award

Cohesive Strategy Goal—Maintain and Restore Resilient Landscapes

Fire Management Officer Deon Steinle (left) accepted the Midwest Regional Fire Management Award on behalf of the Mid-Plains Interagency Fire Management Zone from (on right) NPS Midwest Regional FMO Jim McMahill (Photo Credit: NPS)

The Fire Management staffs from the FWS, Region 6, Prairie Zone Refuges, located within the states of Kansas and southern Nebraska, have been named the winners of the annual Midwest Regional Fire Management Award which is conferred by the fire management staff of the NPS, Midwest Region.

The awarded FWS fire management staffs are members of the Mid-Plains Interagency Fire Management Zone, based out of the Quiviria National Wildlife Refuge in Stafford, Kansas, and are part of an interagency team comprised of employees from the FWS and NPS.

Assistant Fire Management Officer, Deon Steinle, from Marais des Cygnes National Wildlife Refuge, accepted the award on the group's behalf from NPS Midwest Region Fire and Aviation Management Officer, Jim McMahill, during a recent site visit to Marias des Cygnes National Wildlife Refuge in Pleasanton, Kansas, October 6, 2014.

The FWS fire management staffs of the Mid-Plains Interagency Fire Management Zone operates under a Service First agreement—an authority which allows the Forest Service, NPS , BLM and FWS to exchange resources and share equipment across jurisdictional boundaries. Under this agreement, they provide fire management oversight and guidance to five NPS units located in the state of Kansas—Brown vs. the Board of Education National Historic Site, Fort Larned National Historic Site, Fort Scott National Historic Site, Nicodemus National Historic Site, and Tallgrass Prairie National Preserve.

"The uniforms we wear may be different; but as employees of the Department of the Interior, we are all working toward the same goal, restoring and maintaining the native grasslands and ecosystems found in the state,"—Quiviria National Wildland Refuge Fire Management Officer Bill Waln

There are four National Wildlife Refuges located in Kansas: Flint Hills National Wildlife Refuge, Kirwin National Wildlife Refuge, Marais des Cygnes National Wildlife Refuge, and Quivira National Wildlife Refuge. With their proximity to the NPS sites, it allows for efficient use of government resources. The

FWS and NPS employees work together toward the same goal of restoring and maintaining the native grasslands and ecosystems. (Photo Credit: FWS)

Mid-Plains Interagency Fire Management Zone also includes a Wetland Management District in Nebraska and six National Wildlife Refuges in Colorado.

"The uniforms we wear may be different; but as employees of the DOI, we are all working toward the same goal, restoring and maintaining the native grasslands and ecosystems found in the state," said Quiviria National Wildlife Refuge, Fire Management Officer, Bill Waln. "When we put on our firefighting gear, we all look the same; and we are all working towards that common goal."

Regional Fire and Aviation Management Officer Jim McMahill, for the NPS Midwest Region agrees, "The fuels and topography of each FWS refuge and NPS site vary, but their location to each other within the state allows for effective resource sharing and collaboration from all the parks." Adding, "By streamlining administrative tasks and developing common business practices, we have shown over the past few years that these agreements can be a cost-saving alternative to both agencies."

Since 2009, when the first agreement was signed, the Mid-Plains Interagency Fire Management Zone has shown excellence in collaboration, efficiency, and teamwork. Since then, the numbers of fuels projects and total acres burned using prescribed fires at the park units located in Kansas, have increased. This is due, in part, to their attention to detail and willingness to focus on the needs of the entire landscape.

The annual Midwest Regional Office Fire Management Award is presented to the park unit or group in the 13-state Midwest Region, which shows success in "Outstanding Fire Management Accomplishments." This is the first time in the award's 12-year history that the drip-torch trophy has been presented to an interagency partner.

Through focused fuels treatment work and use of prescribed fire, FWS and NPS work together to improve the conditions on a landscape scale. (Photo Credit: FWS)

Department of Agriculture

Forest Service

Slide Fire, Oak Creek Canyon, Arizona

Coconino National Forest, Arizona – Cohesive Strategy Goals: Restore and Maintain Resilient Landscapes and Response to Wildfire

Active fire from the Slide Fire as a result of one to two mile spotting from the smoke column (Photo Credit: Forest Service

Due to its striking topography, ruggedness and presence of water, Oak Creek Canyon is home to a variety of tree and shrub species, wildlife (including Mexican spotted owl), and is a popular recreation area for tourists and locals alike.

The Slide Fire started just north of Slide Rock State Park and was reported on May 20, 2014, at approximately 3:30 p.m. The fire was determined to be human-caused, and the initial size up indicated that the fire was two to three acres in size, with high potential for growth.

Red Flag weather conditions were experienced for the first two days of this fire, which means that hot, dry, windy weather prevailed. Fueled by high winds, the fire quickly grew to over 30 acres, triggering evacuations of approximately 100 structures within the canyon that were immediately threatened.

Initial response included a coordinated effort between local resources such as Sedona Fire Department, Federal Interagency Hotshot crews, helicopters, air attack, and engines. By 7:30 that evening, approximately 100 personnel were on site, and a Type 1 Incident Management Team was ordered.

Picture showing surface fire behavior, largely the result of timely careful burnout operations (Photo Credit: Forest Service)

On May 22 after the Type 1 Team arrived, pre-evacuations were ordered for two neighborhoods near Pumphouse Wash. Crews were able to prevent the fire's spread into Pumphouse Wash, and the evacuations were eventually lifted. The Slide fire ultimately covered an area larger than 21,000 acres; however of the over 21,000 acres that burned, just 3,115

acres burned at high intensity with more than 11,000 acres burning at low intensity or remaining unburned, mimicking the ecological effects one would expect from a healthy ponderosa pine forest.

The Slide Fire could have been much more damaging, but pre-planning by communities and cooperating agencies, landscape-level treatment of fuels, and an effective wildfire response minimized the losses.

Communities were engaged prior to the fire and were actively pursuing the goals of their Community Wildfire Protection Plan. As a result, various partners had engaged in hazardous fuels reduction. The most prominent of these efforts was undertaken by the Coconino NF which had treated thousands of acres of ponderosa pine to reduce fuel loadings and maintain these fire-adapted landscapes in a condition that more closely resembled their natural condition as maintained by frequently recurring fires.

Aerial photo shows mosaic burn pattern of low, moderate and high intensity fire. Note: higher intensity burn on the left side (east), where fire was more active in the initial few burn periods. (Photo Credit: Forest Service)

With the communities engaged and progress made in treating the landscape, the stage was set for an effective wildfire response. Local resources responded effectively to a very aggressive fire and kept people out of harm's way through timely evacuations. While unable to stop the fire, initial responders were able to take limited action using helicopter bucket drops to "steer" the fire away from communities and toward the treated landscapes where they preferred to engage the fire on that more favorable terrain.

Firefighters effectively mitigated fire intensity during burnout operations where they burned out control lines ahead of the fire to rob it of fuel and eventually stop its progress. Much of the low intensity fire is on top of the rim within areas that had previously been thinned and prescribed burned. Not only were they able to contain the fire, but the areas that saw low intensity fire will be healthier and residents will be safer in the long run.

Also notable was the awareness of the fire managers that while the fire itself threatened to damage property and resources, it was not the highest risk to the canyon communities in the long run. This area has recently experienced a number of events where seasonal monsoon rains occurring on recently burned areas resulted in significant downstream property loss and even loss of life. With this awareness, firefighters made conscious choices about firefighting tactics and strategies such as time of day to conduct burnout operations and line locations that increased the unburned buffer between the creek bottom and the fire's edge. As a result, the fire response effort not only resulted in the control of the fire, but also reduced the risk of negative outcomes that could result from future rain events over the fire area.

Reviews and Open Recommendations

Status of Government Accountability Office and Office of Inspector General Reviews/ Recommendations

The Department of the Interior

The Department of the Interior has open recommendations for one Office of Inspector General (OIG) and two Government Accountability Office (GAO) reports. Updates were provided to both agencies as of September 2014:

Wildland Urban Interface Community Assistance (ER-EVMOA-0012-2009), October 2010

The Department of the Interior has three outstanding recommendations from report number ER-EVMOA-0012-2009, as follows:

Recommendation #2: Strengthen the Interagency National Fire Plan Operating and Reporting System (NFPORS) Wildland Urban Interface (WUI) community assistance module, including issuance of comprehensive guidelines for users, defined project activity elements, and performance monitoring and tracking tools.

September 2014 Status: The Office of Wildland Fire received a set of recommendations from a wildland fire task group and is developing a policy memorandum to address the Office of Inspector General (OIG) recommendations by the target date.

Target Date: December 31, 2014

Recommendation #3: Establish consistent WUI community assistance grant policies and guidance addressing program objectives and performance measures.

September 2014 Status: The Office of Wildland Fire has received a set of recommendations from a wildland fire task group and is developing a policy memorandum to address OIG recommendations by the target date.

Target Date: December 31, 2014

Recommendation #4: Establish a national methodology for sharing educational and outreach products developed through WUI community assistance grants.

September 2014 Status: The Office of Wildland Fire developed, signed, and distributed a policy memorandum that addresses the OIG recommendation and has requested close-out of this recommendation.

Target Date: September 30, 2014

The Department's progress on outstanding recommendations to open GAO reports is as follows:

Wildland Fire: Interagency Budget Tool Needs Further Development to Fully Meet Key Objectives (GAO-09-08)

Recommendation #3: To increase agency transparency in using the Fire Program Analysis (FPA) to develop their budget requests and allocate funds, the Secretaries of Agriculture and the Interior should report annually to Congress on FPA's role in the budget development and allocation process. This report should include, at a minimum, information on (1) how the agencies weighted the measures FPA uses to evaluate different mixes and locations of firefighting assets and the rationale for those weights, (2) how FPA results were used in conjunction with other information in developing the agencies' budget requests, and (3) the extent to which the agencies' funding allocations to their field units reflected the FPA results for a given year.

September 2014 Status: The Office of Wildland Fire management has prepared a decision memo to closeout FPA and transition to the next generation decision support system; this decision memo, with supporting documentation developed with Forest Service, is central to Office of Wildland Fire/DOI response to the GAO recommendation by the Goal Performance target date. The Record of Decision to close FPA was signed on or before September 29, 2014; a transition plan (attached to the signed Record of Decision) will ensure continuity of specific critical functions of FPA. An agreement on the course of action was confirmed on a September 12, 2014, interagency conference call and again in an email dated September 19, 2014, between the Office of Wildland Fire, Forest Service, and the GAO. A request for closing the recommendation from Office of Wildland Fire to PFM is in surnaming.

Target Date: June 30, 2013

Wildland Fire Management: Improvements Needed in Information, Collaboration, and Planning to Enhance Federal Fire Aviation Program Success (GAO-13-684)

Recommendation #1: Expand efforts to collect information on aircraft performance and effectiveness to include all types of firefighting aircraft in the federal fleet.

September 2014 Status: The Fire Executive Council has tasked the Fire Management Board to work with state and other partners to develop a strategy that will meet the GAO recommendations by the target date. Office of Wildland Fire is coordinating with the DOI Office of Aviation Services and the Forest Service.

Target Date: December 31, 2014

Recommendation #2: Enhance collaboration between the agencies and with stakeholders in the fire aviation community to help ensure that agency efforts to identify the number and type of firefighting aircraft they need reflect the input of all stakeholders in the fire aviation community.

September 2014 Status: The Fire Executive Council has tasked the Fire Management Board to work with state and other partners to develop a strategy that will meet the GAO recommendations by the target date. The Office of Wildland Fire is coordinating with the DOI Office of Aviation Services and the Forest Service.

Target Date: December 31, 2014

Recommendation #3: Subsequent to the completion of the first two recommendations, update the agencies' strategy documents for providing a national firefighting aircraft fleet to include analysis based on information on aircraft performance and effectiveness and to reflect input from stakeholders throughout the fire aviation community.

September 2014 Status: The Fire Executive Council has tasked the Fire Management Board to work with state and other partners to develop a strategy that will meet the GAO recommendations by the target date. The Office of Wildland Fire is coordinating with the DOI Office of Aviation Service and the Forest Service.

Target Date: December 31, 2014

Forest Service

The Forest Service has three GAO reports with open recommendations. The following is a list of reports and the status of the associated open recommendations:

GAO-13-684, Wildland Fire Management – Federal Fire Aviation: Improvements Needed in Information, Collaboration, and Planning to Enhance Federal Fire Aviation Program Success (August 2013)

Recommendation:

To help the agencies enhance their abilities to identify their firefighting aircraft needs and better ensure they obtain aircraft that meet those needs, we recommend that the Secretaries of Agriculture and the Interior direct the Chief of the Forest Service and Deputy Assistant Secretary for Public Safety, Resource Protection, and Emergency Services, respectively, to take the following three actions:

Management Decision(s) and Associated Corrective Action Milestones:

Expand efforts to collect information on aircraft performance and effectiveness to include all types of firefighting aircraft in the Federal fleet.

Corrective Action Milestones:

The Forest Service Aerial Firefighting Use and Effectiveness Study (AFUE) will be expanded to include helicopters and water scoopers as well as large airtankers. AFUE will continue to analyze the effectiveness of aerial firefighting aircraft, using data collected from the broad spectrum of sources, including dedicated ground crews, ground and aerial resources observation forms, aircraft infrared/color camera sensors, aircraft data collection sensors such as Operational Loads Monitoring Systems, Additional Telemetry Units, Automated Flight Following, and other technology as it become available.

Enhance collaboration between agencies and with stakeholders in the fire aviation community to help ensure that agency efforts to identify the number and type of firefighting aircraft they need reflect the input of all stakeholders in the fire aviation community.

An executive level planning session is being coordinated to develop senior executive leaders' (Forest Service and DOI) intent, determine strategic aviation requirements, identify additional stakeholders and establish a timeline for building a plan which identifies the number and type of firefighting aircraft on an interagency basis. Additionally, the Forest Service will offer to include stakeholders in the collection and analysis of stakeholder aerial firefighting aircraft to develop interagency use and effectiveness parameters.

Subsequent to the completion of the first two recommendations, update the agencies' strategy documents for providing a national firefighting aircraft fleet to include analysis based on information of aircraft performance and effectiveness and to reflect input from stakeholders throughout the fire aviation community.

After collecting and analyzing effectiveness data and collaborating with the DOI and other stakeholders, the agency will update its strategy documents accordingly.

GAO-12-155 Station Fire: Forest Service's Response Offers Potential Lessons for Future Wildland Fire Management (December 16, 2011)

Recommendations:

To improve the Forest Service's response to wildland fires, we recommend that the Secretary of Agriculture direct the Chief of the Forest Service to clarify the Forest Service's intent and to reduce uncertainty about how its assets are to be used relative to those of other agencies, issue guidance describing when it expects its own firefighting assets to be used instead of contract or state and local agency assets.

To improve the Forest Service's response to wildland fires, we recommend that the Secretary of Agriculture direct the Chief of the Forest Service to document the steps it plans to take and the associated time frames to implement the lessons it identified in its review of the Station Fire.

Status of Corrective Action:

The Pacific Southwest Region of the Forest Service has implemented the recommendations and Fire and Aviation Management headquarters is gathering proof of implementation for Recommendations 1 and 2.

GAO-07-1168 Wildland Fire Management: Better Information and a Systematic Process Could Improve Agencies' Approach to Allocating Fuel Reduction Funds and Selecting Projects (September 28, 2007)

Recommendation #1:

Secretaries of Agriculture and the Interior should direct their agencies to develop information to support this systematic process. Development of the information should include using information on risk and fuel treatment effectiveness, once available, in concert with information on the cost of treatments, to assess the cost-effectiveness of various potential fuel reduction treatments.

***Status of Corrective Action on Recommendation #1*:**

This recommendation remains "Open." GAO says, "Although the Forest Service expects to implement this recommendation in the future, it has not yet done so because the agency must first collect more data on treatment effectiveness. Information was submitted by the agency to GAO; however, GAO requested additional information. Agency continues to work on acquiring additional information.

Recommendation #2:

Secretaries of Agriculture and the Interior should provide guidance that clearly distinguishes the relative importance of the various factors used in allocating funds and selecting projects, including the importance of risk, effectiveness, and cost in comparison with other factors. This guidance should also distinguish the

relative priority of different values at risk, especially different elements within the wildland-urban interface, such as homes, power lines, and municipal watersheds.

Status of Corrective Action on Recommendation #2:

This recommendation remains "Open." GAO says, "The Forest Service has not provided additional clarification on the relative importance of various factors considered in allocating fuels reduction funding. In particular, the agency has not clarified the relative importance of different elements within the wildland-urban interface." Additional information was submitted to GAO by the agency; however, GAO requested more information. Agency continues its work to acquire additional information.

The Forest Service is engaged with auditors in four ongoing audits:

OIG-08601-0002-41 – Firefighting Cost Share Agreements

Objective:

This objective began as cost share agreement with the following objectives: To evaluate the adequacy of the Forest Service controls surrounding the administration of cost share agreements. Specifically, the Forest Service will determine whether: (1) agreements were properly established and implemented; (2) firefighting suppression costs were equitably distributed; and (3) reimbursements were properly determined (actual v. estimated) and consistent with the agreed-upon cost share agreements. HOWEVER, after doing initial field work in the Pacific Southwest Region (R5), OIG headquarters told the audit team to change the audit objectives to obtain the regional perspective regarding structure protection and the financial aspects thereof. Second, determine whether protection boundaries were properly adjusted to reflect the grown and expansion of WUI areas.

OIG 08601-0001-31 Forest Service Oversight and Compliance Activities

Objective:

To determine if the Forest Service's compliance and monitoring activities are adequately structured to oversee the effectiveness and efficiency of its operations. Audit work will start at the Albuquerque Service Center. We will also visit the Forest Service Southwestern Regional office in Albuquerque, New Mexico. We plan to select and visit additional Forest Service offices. This audit will cover fiscal years 2012 to present. The audit scope could be expanded as needed. We will interview program officials and review pertinent records related to Forest Service's compliance and monitoring activities.

OIG 08601-0004-41 Forest Service Wildland Fire Activities – Hazardous Fuels Reduction

Objective:

To determine if the Forest Service's compliance and monitoring activities are adequately structured to oversee the effectiveness and efficiency of its operations. Audit work will start at the Albuquerque Service Center. We will also visit the Forest Service Southwestern Regional office in Albuquerque, New Mexico. We plan to select and visit additional Forest Service offices. This audit will cover fiscal years 2012 to present. The audit scope could be expanded as needed. We will interview program officials and review pertinent records related to Forest Service's compliance and monitoring activities.

GAO – Federal Wildland Fire Management, Engagement code: 361590

GAO is beginning this work after receiving a request from Ranking Member Congressman Peter Defazio of the House Committee on Natural Resources.

Objective:

Our primary objective is to examine various issues related to Federal wildland fire management, including processes Federal land management agencies use to determine wildland fire asset needs; agency consideration of firefighting approaches to maximize the effectiveness of their firefighting assets; wildland fire funding issues; and Federal, State and local agency interactions.

Performance Measures

The Department of the Interior – Goal #1: Protect America's Landscapes

Strategy #3: Manage wildland fire for landscape resiliency, strengthen the ability of communities to protect against fire, and provide for public and firefighter safety in wildfire response.

Supporting Performance Measure	Type	2014 Actual
Percent of DOI-managed landscape areas that are in a desired condition as a result of fire management objectives (SP)	A	36.0 percent (161,237,140 / 447,806,489
Percent of DOI-managed treatments that reduce risk to communities that have a wildland fire mitigation plan (SP)	A	68.5 percent (1,655 / 2,417)
Percent of wildfires on DOI-managed landscapes where the initial strategy (ies) fully succeeded during the initial response phase. (SP)	A	97 percent (5,593 / 5,757)

Other Significant Fire Program Measures

Supporting Performance Measure	Type	2014 Actual
Number of high-priority acres treated in the WUI	A	688,742
Number of acres in fire regimes 1, 2, or 3 moved to a better condition class (WUI and non-WUI)	A	WUI 276,020 Non-WUI 78,390 Total 354,410
Number of acres in fire regimes 1, 2, or 3 moved to a better condition class per million dollars of gross investment (WUI and non-WUI)	A	WUI 1,903 Non-WUI 541 Total 2,444
Number of acres in fire regimes 1, 2, or 3 moved to a better condition class as a percent of total acres treated (WUI and non-WUI). This is also a long-term measure.	A	WUI 40 percent Non-WUI 38 percent Total 40 percent
Percentage of all fires not contained in initial attack that exceeded a Stratified Cost Index (SCI) (BUR)	A	10 percent
Percentage change from the 10-year average in the number of acres burned by unplanned, unwanted wildland fires on Interior lands (BUR)	A	-75 percent (-1,672,110 / 2,215,775)
Number of treated acres that are identified in Community Wildfire Protection Plans (CWPPs) or other applicable collaboratively developed plans (BUR)	A	472,009
Percent of treated acres that are identified in CWPPs or other applicable collaboratively developed plans (BUR)	A	69 percent (472,009 / 688,742)
Number of acres in WUI treated per million dollars gross investment	A	668,742 $125.28 million = 5,497
Number of treated burned acres that achieved the desired condition (BUR)	A	1,762,666
Percent of treated burned acres that have achieved the desired condition (BUR)	A	90 percent (1,762,666 / 1,878,026)
Percent of DOI and USDA acres in good condition (defined as Condition Class 1)	F	Unknown

Target Codes: SP = Strategic Plan Measure; BUR – Fire Program Specific Measure; HPG= High Performance Goal; NA = Long-Term Targets Inappropriate to Determine at This Time; and UNK = Prior Data Not Available.
Type Codes: C = Cumulative Measure; A = Annual Measure; and F = Future Measure

USDA Forest Service

Forest Service Strategic Plan

Numeric designation (if appropriate)	Measure	2014 Actual	2014 Target (if appropriate)
1.1b	Number of acres brought into stewardship contracts.	177,208	N/A
1.2	Percentage of fires not contained in initial attack that exceed a SCI.	*[18]	24%
1.3	Percentage of acres treated in the wildland urban interface (WUI) that have been identified in community wildfire protection plans (CWPPs) or the equivalent.	77.3%	90%

USDA Strategic Plan

Numeric designation (if appropriate)	Measure	2014 Actual	2014 Target (if appropriate)
2.1.1	Annual acres of public and private forest lands restored or enhanced.[19]	4,968,161	4,581,000
2.4.1	Number of communities with reduced risk from catastrophic wildfire.	4,665	N/A
2.4.2	The cumulative number of acres in the National Forest System that are in a desired condition relative to fire regime.	60,065,020	61,047,000
2.4.3	Percentage of acres treated in the WUI that has been identified in CWPPs or equivalent plans.	77.3%	90%

Program Assessment

Measure	2014 Actual	2014 Target (if appropriate)
Percent of fires not contained in initial attack that exceed a SCI.	*	24%
Percent change from the 10-year average for number of wildfires controlled during initial attack.	*	0.2 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.	2,542.321	1,600,000
Number of acres restored and maintained per million dollars gross investment.	4,234	3,800
Acres moved to a better condition class per million dollars gross investment.	1,106	1,005

[18] Starred Performance Measures (*) are reported based on calendar year and not reported prior to the publication date of this report.

[19] Fire and Aviation Management contributes to this measure.

10-Year Comprehensive Strategy Implementation Plan (updated December 2006)

Measure	2014 Actual	2014 Target (if appropriate)
Percent change from 10-year average for a percent of wildfires controlled during initial attack.	1.33%	0.2%
Percent of fires not contained in initial attack that exceeded a SCI	*	24%
Number of acres treated per million dollars gross investment in WUI and non-WUI areas.	4,234	3,800
Percent of collaboratively identified high priority acres treated where fire management objectives are achieved as identified in applicable management plans and strategies.	69.9%	N/A
Number and percent of acres treated through collaboration consistent with this Implementation Plan, identified by treatment category (i.e., prescribed fire, mechanical, and fire use[20])		
Prescribed Fire	1,357,791; 58.75%	
Mechanical Treatments	707,497;30.61%	
Fire Use	246,018; 10.64%	
Total	**2,311,306; 100%**	
Percent and number of burned acres identified in approved post-wildfire recovery plans as needing treatments that actually receive treatments.	30,000	
Percent of burned acres treated for post-wildfire recovery that are trending toward desired condition	95%	
Numbers and percent of communities-at-risk (CAR) 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; 2. enacted a mitigation/fire prevention ordinance; 3. High priority hazardous fuels identified in CWPP or equivalent are reduced or appropriate fuel levels on such lands are maintained in accordance with a plan.		
Number of CAR	75,720	
Number of CAR covered by CWPP or equivalent	13,082	
Percent of total CAR covered by CWPP	17.4%	
Number of CAR at reduced risk	4,665	
Percent of total CAR at reduced risk	6%	
Percent of CAR covered by CWPP at reduced Risk	35.7%	

[20] Fire Use is those portions of naturally ignited wildfires that resulted in favorable ecological conditions.

Measure	2014 Actual	2014 Target (if appropriate)
Percentage of at risk communities who report increased local suppression capacity as evidenced by: 1. The increasing number of trained and/or certified firefighters and crews; 2. upgraded or new fire suppression equipment obtained; 3. formation of a new fire department or expansion of an existing department involved in wildland firefighting.		
Total firefighters trained	102,366	
	State Fire Assistance (SFA) 85,965	
	Volunteer Fire Assistance (VFA) 16,371	
Funding provided for upgraded or new fire suppression equipment	SFA $5,912,156 VFA $6,119,234	
Formation of new VFD or expansion of existing departments	182	
Total number of communities assisted with increased capacity	11,897	
Total CAR	75,250	
Percent of CAR with increased capacity	15.8%	
Number and green tons and/or volume of woody biomass from hazardous fuels reduction and restoration treatments on Federal land that are made available for utilization through permits, contracts, grants, agreements, or equivalent.	2,156,324	2,30

Forest Service Measures Set

Measure	2014 Actual	2014 Target (if applicable)
Acres of hazardous fuels treated outside the WUI to reduce the risk of catastrophic wildland fire.	817,244	N/A
Acres of WUI high-priority hazardous fuels treated to reduce the risk of catastrophic wildland fire	1,725,077	1,250,000
Three-year percent of fires not contained in initial attack that exceed SCI.	*	26%
Number of communities receiving firefighting capacity building from the SFA.	10,141	12,180
Number of small communities receiving firefighting capacity building from the VFA.	11,018	8,120

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