United States Department of Agriculture
Office of Inspector General

Forest Service Wildland Fire Activities - Hazardous Fuels Reduction

08601-0004-41
July 2016

Forest Service Wildland Fire Activities – Hazardous Fuels Reduction

Audit Report 08601-0004-41

What Were OIG's Objectives

Our objectives were to assess FS' controls over selecting hazardous fuels reduction projects, assess the impact of Community Wildfire Protection Plans on that selection, and follow up on FS' corrective actions in response to our 2006 audit.

What OIG Reviewed

We reviewed controls and data for hazardous fuels reduction activities on FS lands from FYs 2012-2014. We performed our audit from July 2014 through November 2015, at FS' WO, three regional offices, four national forests, and six ranger districts.

What OIG Recommends

FS needs to develop and implement risk assessments and guidance across the agency and document and implement a formal review of hazardous fuels reduction project selections. It should implement new tracking measures and make software modifications to accurately record accomplishments and require staff to charge all costs only for "work actually performed."

OIG reviewed FS' processes for selecting projects and reporting accomplishments for hazardous fuels reduction treatments.

What OIG Found

The Forest Service (FS) lacks a consistent, cross-agency process for selecting its highest priority hazardous fuels reduction projects for completion. FS units do not use scientifically-based risk assessments to select projects; they do not document the processes used for selecting projects; and the Washington Office (WO) does not review project decisions made at the regional and district level. FS' methodology for tracking accomplishments leads to inadequate data, and as a result, FS reported to Congress that it treated 3,703,848 acres for hazardous fuels reduction during fiscal years (FY) 2012-2014, when it actually treated 3,600,389 acres, an overstatement of 103,459 acres (2.8 percent). Also, FS units charged work hours to the Hazardous Fuels Reduction budget line item for work that may not have supported those activities, despite guidance directing that time should be documented only for "actual work performed."
In response to our 2006 audit, FS developed the Hazardous Fuels Priority Allocation System (HFPAS) to identify and prioritize fuels reduction projects. However, HFPAS only assists in determining project funding and does not assign priority to actual projects. Therefore, HFPAS does not fully address our earlier recommendations.

Without formal selection and review processes, FS may not apply its limited hazardous fuels reduction resources, which in FYs 2012-2014 totaled approximately $600 million, to the areas most in need of treatment, placing areas at increased risk of catastrophic wildland fire. Inaccurate reporting and accounting means that FS may not know what it actually spent on hazardous fuels reduction-related work which may cause funding decisions to be based on inaccurate information.

We accepted management decision on 10 of the 11 recommendations; FS generally agreed with the remaining recommendation.

United States Department of Agriculture
Office of Inspector General
Washington, D.C. 20250

DATE: July 29, 2016

AUDIT NUMBER: 08601-0004-41

TO: Thomas L. Tidwell
Chief
Forest Service

ATTN: Antoine Dixon
Acting Chief Financial Officer

FROM: Gil H. Harden
Assistant Inspector General for Audit

SUBJECT: Forest Service Wildland Fire Activities – Hazardous Fuels Reduction

This report presents the results of the subject review. Your written response to the official draft is included in its entirety at the end of the report. We have incorporated excerpts from your response and the Office of Inspector General's (OIG) position into the relevant sections of the report. Based on your written response, we have accepted management decision on Recommendations 1-7 and 9-11. Please follow your internal agency procedures in forwarding final action correspondence to the Office of the Chief Financial Officer.

Based on your written response, management decision has not been reached on Recommendation 8. The information needed to reach management decision on the recommendation is set forth in the OIG Position section following the recommendation. In accordance with Departmental Regulation 1720-1, please furnish a reply within 60 days describing the corrective action taken or planned, and the timeframe for implementing the recommendation for which management decision has not been reached. Please note that the regulation requires management decision to be reached on all recommendations within 6 months from report issuance, and final action to be taken within 1 year of each management decision to prevent being listed in the Department's annual Agency Financial Report.

We appreciate the courtesies and cooperation extended to us by members of your staff during our audit fieldwork and subsequent discussions. This report contains publically available information and will be posted in its entirety to our website (http://www.usda.gov/oig) in the near future.

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Background and Objectives

Background

Forest Service (FS) is responsible for restoring the health of the nation's forests and grasslands to increase resilience to the effects of wildland fire. Work is carried out through a decentralized organization consisting of 9 regions, 154 national forests, and over 600 ranger districts. FS' Washington Office (WO) is located in Washington, D.C., and develops broad policy and direction for the agency, while regional offices monitor program activities implemented within the national forests. National forests provide technical support to the ranger districts and coordinate activities between them. However, on-the-ground activities such as vegetation management are typically performed at the ranger district level.

FS manages more than 192 million acres in the National Forest System (NFS). An estimated 58 million acres of this land are at high risk of ecologically destructive wildland fire. The most extensive and serious problem related to the health of national forests is the over-accumulation of vegetation that can fuel fires, which has caused an increasing number of large, intense, and catastrophically destructive wildfires that can be difficult to contain. It has been estimated that these hazardous fuels[1] are accumulating three times as fast as they can be treated. Reducing the buildup of hazardous fuels is important in reducing the extent, severity, and cost of wildfires.

Hazardous fuels reduction projects have been proven as a means of mitigating wildfire hazards to lessen catastrophic fire and its threat to public and firefighter safety and property.[2] The objective is to remove enough fuel so that when a wildfire burns, it is less severe and can be more easily suppressed or used to achieve other resource objectives, including the reduction of hazardous fuels on the landscape. Hazardous fuels reduction activities restore forest health and reduce wildfire risks. Land management agencies use a wide range of tools to treat hazardous fuels with the goal of reducing the risk of wildland fire to communities and the environment. Hazardous fuels reduction treatments can be the most effective way to protect communities, restore forest and grassland health, improve firefighter and public safety, and potentially reduce large fire suppression costs.[3]

Recognizing the need to reduce the threat of catastrophic wildfires and improve the health of the nation's forests, President Bush announced the Healthy Forests Initiative (HFI) on August 22, 2002.[4] HFI, a combination of administrative initiatives and legislative changes, provided additional tools needed to reduce wildland fire risks, control insects and disease, and

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[1] Hazardous fuels are the over-accumulation of vegetation on NFS lands such as grass, plants, shrubs, and trees that feed a fire.

[2] The primary purpose of a hazardous fuels reduction project is to remove the excess vegetation from NFS lands in order to reduce the threat of catastrophic wildfire. The project would generally consist of cutting the excess vegetation, piling it up, and either burning it or hauling it away.

[3] USDA FS, *Fiscal Year 2014 Budget Justification* 9-15 (April 2013).

[4] Executive Office of the President, *Healthy Forests: An Initiative for Wildfire Prevention and Stronger Communities* (August 22, 2002), http://www.fs.fed.us/projects/documents/HealthyForests_Pres_Policy%20A6_v2.pdf.

restore forest health. This included improving procedures for developing and implementing hazardous fuels reduction projects in priority forests and rangelands in collaboration with local governments, and developing guidance for weighing the short-term risks against the long-term benefits of hazardous fuels reduction projects.

On December 3, 2003, President Bush signed the Healthy Forests Restoration Act (HFRA) into law.[5] In passing HFRA, Congress provided additional tools to fully implement HFI. The legislation included a variety of provisions aimed at expediting the preparation and implementation of hazardous fuels reduction projects on Federal land and assisting rural communities, States, and landowners in restoring forest conditions on State and private lands. Communities have become increasingly part of at-risk areas known as the wildland-urban interface (WUI),[6] creating a greater challenge for fire protection. HFRA required allocating at least 50 percent of Federal HFI funds to WUI acres. HFRA gives priority to projects and treatment areas identified in a Community Wildfire Protection Plan (CWPP) and directs Federal agencies to give specific consideration to fuel reduction projects that implement those plans.

In 2009, Congress passed the Federal Land Assistance, Management, and Enhancement (FLAME) Act, requiring land management agencies to develop a cohesive wildfire management strategy that included assessing the level of risk to communities and allocating hazardous fuels reduction funds based on the priority of hazardous fuels reduction projects.[7] The guiding principles of the subsequent National Cohesive Wildland Fire Management Strategy[8] require that the best available science, knowledge, and experience are used when making fire management decisions.

FS spent over $6 billion during FYs 2012-2014 preparing for and fighting wildfires, and the share of FS' budget dedicated to wildland fire continues to increase annually. In FY 2015 alone, FS spent $2.8 billion, over half its entire budget, preparing for and fighting fires. FS noted in a recent report[9] that,

> In 1995, fire made up 16 percent of the Forest Service's annual appropriated budget–this year [FY 2015], for the first time, more than 50 percent of the Forest Service's annual budget will be dedicated to wildfire….Left unchecked, the share of the budget devoted to fire in 2025 could exceed 67 percent, equating to reductions of nearly $700 million from non-fire programs compared to today's funding levels.

FS sets annual performance measures for its hazardous fuels reduction activities, focusing on acres treated in WUI areas. The nationwide target set by FS for FYs 2012-2015 was 5.3 million acres. Over those 4 fiscal years, FS exceeded that target by treating 6.9 million acres.

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[5] Healthy Forests Restoration Act of 2003, Pub. L. No. 108-148, 117 Stat. 1896.
[6] WUI is the area where structures and other human development meet or intermingle with undeveloped wildland.
[7] Federal Land Assistance, Management, and Enhancement Act of 2009, Pub. L. No. 111-88, div. A, tit. V, 123 Stat. 2904, 2968-72 (FLAME Act of 2009).
[8] Wildland Fire Leadership Council, *A National Cohesive Wildland Fire Management Strategy* (2011), http://www.doi.gov/pmb/owf/cohesive_strategy.cfm.
[9] Forest Service, *The Rising Cost of Wildfire Operations: Effects on the Forest Service's Non-Fire Work* (August 4, 2015).

FS also sets annual performance measures for the percentage of acres treated within WUI areas that have also been identified in CWPPs.[10] FS set this target at 75 percent for FYs 2012-2013, and 90 percent for FYs 2014-2015. While FS exceeded this target in FYs 2012 and 2013, completing 93 percent and 85 percent, respectively, in FYs 2014 and 2015, FS completed only 77 percent and 83 percent, respectively, of the acres in WUI areas that were identified in CWPPs, thereby missing its target for those years by 13 percent and 7 percent, respectively.

FS uses the Forest Activity Tracking System (FACTS) to track its hazardous fuels reduction projects. The data and information from FACTS is used to report the agency's accomplishments on an annual basis for performance measures such as the number of high priority WUI acres treated and percent of treated acres identified in CWPPs.

Related Prior Audits

The United States Department of Agriculture's (USDA) Office of Inspector General (OIG) and the U.S. Government Accountability Office (GAO) have conducted a number of prior audits related to FS' hazardous fuels activities. In a 2006 report,[11] OIG evaluated FS' implementation of HFI. OIG found that FS did not have (1) a consistent analytical process for assessing the level of risk that communities face from wildland fire and determining if a hazardous fuels project is cost beneficial, (2) specific national guidance for weighing the risks against the benefits of fuels treatment and restoration projects, and (3) adequate controls for identifying and prioritizing hazardous fuels projects to ensure that the highest priority fuels reduction projects were being implemented.

To help prioritize hazardous fuels reduction projects, OIG recommended FS: (1) develop and implement specific, national guidance for assessing the risks of wildland fires and determining the benefits of fuels treatment and restoration projects, which should be applied on a consistent basis among regions, forests, and districts, so FS can prioritize and fund the most beneficial and cost effective fuel reduction projects; (2) establish controls to ensure that the process and methodology to identify and prioritize the most effective fuels reduction projects can be utilized at all levels; and (3) establish controls to ensure funds are distributed according to where the highest concentrations of priority projects are located nationally.

In a 2007 report,[12] GAO assessed how FS and the U.S. Department of the Interior allocated their fuel reduction budgets and selected projects. GAO found that while both agencies had taken steps to enhance their funding allocation and project selection processes, the agencies could make several improvements, including assessing all elements of wildland fire risk and developing and using measures to estimate how much risk reduction is likely to be achieved

[10] A CWPP is developed by a community in an area at risk from wildland fire in collaboration with interested parties, local governments, local fire-fighting agencies, the State agency which oversees forest management, and Federal land management agencies. A valid CWPP has two objectives: (1) identifying and prioritizing the surrounding area, both Federal and non-Federal lands, for hazardous fuels reduction treatments, as well as recommending methods for achieving hazardous fuels reduction; and (2) recommending measures to reduce structural ignitability throughout the at-risk community.
[11] USDA OIG Audit Report 08601-6-AT, *Implementation of the Healthy Forests Initiative*, September 2006.
[12] GAO Audit Report GAO-07-1168, *Better Information and a Systematic Process Could Improve Agencies' Approach to Allocating Fuel Reduction Funds and Selecting Projects*, September 2007.

through particular treatments and for how long, to better ensure that they allocate fuel reduction funds to effectively reduce risk.

Objectives

Our objectives were to: (1) assess FS' controls over identifying, prioritizing, implementing, monitoring, and reporting hazardous fuels reduction projects on NFS lands, particularly those in WUI areas where human development intermingles with undeveloped wildland; (2) assess the impact that the CWPPs have on FS' process for selecting hazardous fuels reduction projects; and (3) follow up on the corrective action FS took on the recommendations made in our prior audit of FS' implementation of HFI (Audit Report 08601-6-AT, issued September 2006). Regarding our second objective, we had no reportable findings.

Section 1: Project Selection Process

Finding 1: FS Still Needs National Guidance for Selecting Hazardous Fuels Projects

We assessed FS' actions in response to the recommendations in our 2006 audit[13] and found that FS still lacks a consistent, cross-agency process for identifying and selecting its highest priority projects for completion. Most FS units are not using risk assessments[14] to select hazardous fuels reduction projects, nor are they documenting the process that was actually used to select those projects. Also, FS has not developed adequate oversight processes for reviewing hazardous fuels reduction project decisions. Initially, FS believed that the Hazardous Fuels Priority Allocation System (HFPAS), developed in response to our prior audit, could be used to identify and prioritize hazardous fuel reduction projects. However, HFPAS only assists in determining funding for regions and their forests, and does not assign priority to individual hazardous fuel reduction projects for completion. Without a uniform methodology for identifying, selecting, and documenting high priority hazardous fuels reduction projects, and a formal review process to ensure the highest priority projects are selected, FS may not apply its limited hazardous fuels reduction resources to the national forest areas most in need of hazardous fuels reduction treatment. This places those areas at increased risk for catastrophic wildland fire, particularly in the WUI and sensitive habitat and watershed[15] areas.

Both HFRA[16] and HFI urge prioritization of hazardous fuels reduction projects that directly protect at-risk communities and watersheds. FLAME requires the development of a cohesive wildfire management strategy that includes "(4) assessing the level of risk to communities; and (5) the allocation of hazardous fuels reduction funds based on the priority of hazardous fuels reduction projects."[17] The guiding principles of the subsequent National Cohesive Wildland Fire Management Strategy require that "Fire management decisions [be] based on the best available science, knowledge and experience, and used to evaluate risk versus gain."[18]

FS has identified almost 100 million acres of NFS lands that have at least moderate risk for wildfire potential, of which more than 58 million of the acres are at high risk. Due to its limited resources, FS completes hazardous fuel reduction treatments on only about 2.9 million acres

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[13] USDA OIG Audit Report 08601-6-AT, *Implementation of the Healthy Forests Initiative*, September 2006.
[14] A risk assessment is a tool that shows the potential risks and benefits of fire on FS lands. The risk assessment provides a visual representation of the risk levels in the FS unit, allowing FS to identify areas most susceptible to the negative effects of wildland fires, such as the destruction of homes and infrastructure, and then prioritize the areas on the national forest that are in need of hazardous fuels reduction. Furthermore, the risk assessments support the unit's process for identifying and selecting hazardous fuels reduction projects for implementation.
[15] A watershed is a continuous ridge of high ground forming a divide between two different drainage basins or river systems.
[16] Healthy Forest Restoration Act of 2003, Pub. L. No. 108-148, 117 Stat. 1896.
[17] Interior Department and Further Continuing Appropriations, Fiscal Year 2010 – Title V – FLAME Act of 2009, Section 503 Cohesive Wildfire Management Strategy (b)(4) and (5).
[18] Wildland Fire Leadership Council, *A National Cohesive Wildland Fire Management Strategy* (2011), http://www.doi.gov/pmb/owf/cohesive_strategy.cfm.

annually, of which about 1.5 million acres[19] are in WUI areas. From FYs 2012-2014, approximately $600 million was allocated to regions for their high priority hazardous fuels projects. According to WO officials, even if its hazardous fuels budget doubled, FS would still not be able to treat all of the acres most at risk for catastrophic wildfire. Hazardous fuels reduction treatments mitigate the risks of potential catastrophic wildfire, and create safer conditions and more strategic options for fire program managers[20] and firefighters, such as opportunities to manage wildfire for multiple objectives including the reduction of hazardous fuels on the landscape.

In response to the 2006 OIG report, FS developed HFPAS. FS relied on the development of HFPAS to address and satisfy the recommendations made in the 2006 OIG report, and directed its regions to allocate hazardous fuels funds to their national forests using methods consistent with HFPAS. However, in our current audit, we found that the implementation of HFPAS did not sufficiently address all of our recommendations from 2006. We found that HFPAS was primarily used as a method of allocating hazardous fuels funding, as opposed to a methodology for identifying and prioritizing actual hazardous fuels projects in the individual FS units. Therefore, HFPAS did not sufficiently address our recommendations regarding hazardous fuels reduction identification and prioritization (see Exhibit B).

During our audit we found issues at the national, regional, and forest level that will require further attention in order for FS to successfully implement our recommendations.

FS Needs to Fully Implement Its Plan for Risk Assessments to Support Project Selection

FS has recently developed a national wildfire risk assessment model to assist the agency in the allocation of hazardous fuels reduction funding and prioritization of hazardous fuels projects.[21] However, at the time of our audit, of the 154 national forests (sorted into 9 regions), only 3 regions and 5 national forests have developed or started developing a risk assessment. In the absence of risk assessments, decisions regarding hazardous fuels reduction projects are likely to be less effective.

Risk assessments, according to the regional FS staff that used them, provide a scientific basis for demonstrating the value and impact of funding hazardous fuels reduction projects. These assessments generally apply to an entire FS unit landscape, such as a region or national forest. A risk assessment evaluates wildfire hazard, exposure, and risk to the unit's highly valued resources and assets (HVRA). HVRAs may include the WUI, watersheds, wildlife, or infrastructure, among others. FS WO staff work with regional and national forest staff to develop a scientific model that characterizes the wildfire hazard, exposure, and risk. The process includes a wildfire simulation that estimates the likelihood and intensity of wildfire. Regional and forest managers then identify, weigh,

[19] The number of average acres treated annually and average acres treated in the WUI are based on data obtained from FS for FYs 2005- 2013.
[20] Fire program managers are responsible for conducting fuels planning and analysis as well as managing fuels activities to ensure that treatments meet management objectives.
[21] Although FS has yet to finalize its national wildfire risk assessment, it held a series of workshops to help regions and national forests develop the capacity to create their own risk assessments.

and rank the HVRAs and the results are analyzed to identify the net value change, which is defined as the consequences (positive or negative) of wildland fire to the area in question.[22] Based on the output generated from the risk assessment, which includes maps of the FS region or national forest indicating which areas of the region or national forest are at the greatest risk for wildfire, FS managers can identify the areas of highest risk and, therefore, prioritize hazardous fuels reduction treatments based on those areas. This detailed information generated from the risk assessment is an improvement over HFPAS, which provides an overall risk score for the FS region or national forest as a whole. FS managers can then make informed decisions about resource allocations based on the best available science and information and develop strategies for accomplishing management goals and objectives on at-risk landscapes.

During our audit, we found some examples of FS units using risk assessments and other examples where risk assessments could have helped units make appropriate project selections. To date, only the Rocky Mountain Region (Region 2) has completed a regional-level risk assessment. Within that region, only 2 of its 11 national forests have completed risk assessments that were used to select their highest priority hazardous fuels projects. The regional office told us it plans to complete 2 risk assessments per year until all 11 of the region's national forests have a completed assessment. The Southwestern Region (Region 3) is in the process of developing a regional risk assessment and national forests within the Pacific Southwest Region (Region 5) are also undergoing the process.

Region 2 provided two examples in which the risk assessment model helped prioritize hazardous fuels reduction treatments. The Pike and San Isabel National Forest used the risk assessment to determine the level of risk for each of its nine large watersheds. Because not all of the watersheds could be treated concurrently, it was able to identify the watersheds at greatest risk for wildfire, and then prioritize the hazardous fuels treatments on these watersheds based on the information and outputs generated from the risk assessment. It also collaborated with other Federal and non-Federal entities to develop a coordinated treatment approach across Federal and non-Federal lands within a single watershed. A risk assessment was used to determine which areas of the watershed were at greatest risk for wildfire, and to develop a coordinated treatment strategy and prioritize the riskiest areas within that watershed.

A national wildfire risk assessment that evaluates and identifies wildfire risk across the country would be a valuable tool for prioritizing hazardous fuels reduction projects and supplying information to support budget allocations. A national wildfire risk assessment would also provide consistent baseline data for FS units to refer to when developing their own assessments. Additionally, development of the national wildfire risk assessment, and corresponding localized risk assessments would allow FS to sufficiently address the recommendations we made in 2006, and would provide the agency and its stakeholders with additional assurance that FS is identifying and prioritizing the highest-risk areas in need of fuels reduction treatments.

[22] The net value change is the net effect of both damaging and beneficial effects on the value of a resource or asset, whether it increases or decreases. Negative numbers for net value change indicate a net loss; positive numbers indicate a net benefit.

FS Units Did Not Document Rationale Behind Project Selections

We found that FS units we reviewed generally did not document the rationale for selecting and completing individual hazardous fuels reduction projects. For instance, we found that none of the six ranger districts we visited documented why they implemented one hazardous fuels reduction project in the WUI over a different hazardous fuels reduction treatment in the WUI. To determine why individual treatments were selected over others, we relied on interviews with staff, some of whom were not working in that district at the time of the projects in question (which were over 2 years old).

Documenting the decision-making process and rationale for the selection of these high-risk areas over others, or a district's inability to complete a project in a high-risk area, would supply transparency during formal reviews of project selections. Along with the development of the risk assessments, documenting the rationale for selecting projects would help ensure that the highest priority hazardous fuels reduction projects are completed first.

FS Did Not Formally Review Hazardous Fuels Reduction Project Decisions

FS does not have a formal review process to evaluate the identification and prioritization of hazardous fuels reduction projects. Instead, FS provides oversight through informal means and communications. FS has not conducted formal hazardous fuels program reviews in its regions in several years due to decreased budgets and restrictions on business travel, and instead relies on improved telecommunication technology and a high level of trust in the FS units' decision-making abilities.

However, FS' manual[23] requires reviews of its programs, activities, and units to reasonably assure that programs are efficiently and effectively managed. It further requires that the type and depth of review conducted shall be commensurate with the scope of programs or management issues to be evaluated and the risk of waste, loss, and misuse inherent in agency activities.

The rollout of the risk assessment models at the regional and national forest levels should supply FS with a consistent and formalized system for conducting post-project reviews. For example, these reviews could compare the work that was completed on-the-ground to the risk assessment model developed for the respective FS unit. This would immediately identify whether the areas which received project funding were in fact the areas of highest priority.

The agency acknowledged the need to conduct some level of review to examine all aspects of its hazardous fuels program, which would include an examination of the methods and practices for prioritizing hazardous fuels funding across its forests, and is considering its options for conducting such reviews. We agree with FS that a formal review process would be beneficial to the agency. Because FS has tens of millions of

[23] USDA FS, *Controls*, FSM 1400, Ch. 1410, "Management Reviews," 4 (June 2007).

> acres that are at high risk for wildfire, and because the agency receives limited funding to address those high-risk acres, a formalized review process that is consistent throughout the country would ensure FS units are selecting the highest priority areas for hazardous fuels reduction projects.

FS has taken steps towards fulfilling the recommendations we made in our 2006 report. Based on the technology that was available at that time, the development of HFPAS provided FS with a risk-based methodology for allocating hazardous fuels reduction funding, but did not effectively prioritize projects based on risk. Because of technological advances and an increase in available data, FS can now develop individual risk assessment models based on each FS unit's HVRAs. FS should be commended for the work it has completed thus far on a national wildfire risk assessment model and for encouraging FS units to complete similar models. We believe these models will allow FS to identify and prioritize its most critical hazardous fuels areas and projects and fulfill the recommendations we made in 2006.

As such, FS needs to fully develop and implement its national wildfire risk assessment model and require FS units to develop their own risk assessments consistent with the national model. Using the national model, FS needs to supply guidance to FS units to ensure consistency across the agency in developing risk assessments. Finally, to ensure transparency and proper stewardship of hazardous fuels reduction funds, WO should review and approve regions' risk assessments, require regions to formally document the project selection process, and develop and implement a formal review process to evaluate regions' hazardous fuels project identification and prioritization processes within their respective national forests.

Recommendation 1

Fully develop and implement the national risk assessment model for identifying and prioritizing hazardous fuels reduction projects on National Forest System lands.

Agency Response

In its June 27, 2016, response, FS stated:

> The Forest Service concurs with this recommendation. The national office is developing a national risk model that will be used to identify and prioritize hazardous fuels reduction areas. The results will inform allocation of resources to the regional level. Projects will be designed based on those priority areas; however, the priority of implementation of individual projects is not a national-scale decision.

FS provided an estimated completion date of June 30, 2017, for this action.

OIG Position

We accept FS' management decision on this recommendation.

Recommendation 2

Issue guidance to the regions on how to develop their own risk assessments consistent with the national risk assessment model to identify and prioritize hazardous fuels reduction projects.

Agency Response

In its June 27, 2016, response, FS stated:

> The Forest Service concurs with this recommendation. The national office has already developed training and workshops on how to develop risk assessments at the regional and sub-regional scales. This training is currently being tested and refined.

FS provided an estimated completion date of June 30, 2017, for this action.

OIG Position

We accept FS' management decision on this recommendation.

Recommendation 3

Require that all regions develop risk assessments that identify and prioritize hazardous fuels reduction projects.

Agency Response

In its June 27, 2016, response, FS stated:

> The Forest Service concurs with this recommendation. Several regions have already developed initial risk assessments and several more are underway. However, the process is not identical in every region. For example, the Pacific Southwest is developing sub-regional risk assessments to more effectively consider variations of conditions within the region; also the Southern Region is developing a method to adapt the already-developed Southern Wildland Fire Risk Assessment that was a collaborative effort between all the state partners.

FS provided an estimated completion date of June 30, 2017, for this action.

OIG Position

We accept FS' management decision on this recommendation.

Recommendation 4

Require WO to review and approve regions' risk assessments to ensure consistency with the national risk assessment model.

Agency Response

In its June 27, 2016, response, FS stated:

> The Forest Service concurs with this recommendation. The regional risk assessments are being developed in a collaborative process between the regions and the national office. Lessons learned from one regional risk assessment are passed along to the other regions for possible application. The national risk assessment will function as both a baseline assessment for the regions and as a consistency check against the regional assessments to compare the results. Analysis of contradictions can be informative.

FS provided an estimated completion date of June 30, 2017, for this action.

OIG Position

We accept FS' management decision on this recommendation.

Recommendation 5

Require regions to formally document the project selection process.

Agency Response

In its June 27, 2016, response, FS stated:

> The Forest Service concurs with this recommendation. The national office will ask the regional offices to describe their project and priority selection process and how the risk assessment was used to inform the decisions.

FS provided an estimated completion date of June 30, 2017, for this action.

OIG Position

We accept FS' management decision on this recommendation.

Recommendation 6

Develop and implement a formal review process to evaluate regions' hazardous fuels project identification and prioritization processes implemented within their respective national forests.

Agency Response

In its June 27, 2016, response, FS stated:

> The Forest Service concurs with this recommendation. This recommendation is closely linked with recommendations 4 and 5. Helping the regions develop their risk assessments and documentation of the decision-making process will form an effective review and evaluation of the regional identification and prioritization processes.

FS provided an estimated completion date of June 30, 2017, for this action.

OIG Position

We accept FS' management decision on this recommendation.

Section 2: Reporting

Finding 2: FS Needs to Accurately Report Accomplishments with Hazardous Fuels Treatments

We found that FS overstated the number of acres it treated from FYs 2012-2014 for hazardous fuels reduction. This occurred because the current methodology for reporting hazardous fuels reduction accomplishments did not allow FS to adequately document when the hazardous fuels reduction project was completed and achieved the desired condition; limitations in the program software prevented accurate and specific data entry; and FS did not monitor data entry for accuracy and timeliness. Because of these issues, FS inaccurately reported to Congress the number of acres treated for hazardous fuels reduction in its annual reports for those years. Without correct information regarding the amount of acreage treated for hazardous fuels reduction in WUI areas, Congress and FS management run the risk of making funding and prioritization decisions based on inaccurate information.

The Government Performance and Results Modernization Act of 2010 (GPRA)[24] requires that agencies ensure and attest to the validity of their performance measurement data. FS has internal policies[25] that require the agency to establish appropriate internal controls to ensure accurate reported accomplishments. FS hazardous fuels reduction accomplishments are required to be entered into FACTS within 30 days of completion of the work, or within 30 days of contract award.[26]

While conducting our audit we discovered discrepancies in the data concerning the number of acres treated for hazardous fuels reduction. Several of FS' regions overstated their accomplishments, one by as much as 16.3 percent. To identify the reasons for this problem, we reviewed data from FACTS supplied to us by WO and the procedures FS used to record hazardous fuels reduction accomplishments and found that the problem is largely due to FS' current methodology for reporting its hazardous fuels reduction accomplishments, inadequate internal controls, and software system limitations.

FS Did Not Accurately Document Actual Acres Treated for Hazardous Fuels Reduction

During the course of our audit we reviewed FACTS data for FYs 2012-2014 and found that FS overstated the amount of acres treated for hazardous fuels reduction during those years. This happened because of an agency practice of counting the same acreage multiple times when the project consisted of more than one procedure to achieve the desired condition. For example, if the project called for cutting, piling, and burning the excess hazardous fuels, as opposed to just burning them, each procedure would be counted separately when calculating the total number of acres treated. Specifically, FS units multiplied the acreage of a single piece of land by the number of individual

[24] GPRA Modernization Act of 2010, Pub. L. No. 111-352, 124 Stat. 3866.
[25] USDA FS, *Controls*, FSM 1400, Ch. 1490, "Performance Accountability," 4 (June 2007).
[26] FS Program Direction FY 2012, FY 2013, and FY 2014; FS' Hazardous Fuels Reduction Treatments Tracking and Accomplishment Reporting Requirements, Version 2.1, April 2, 2014.

hazardous fuels reduction procedures performed to complete the overall project, even though these procedures (i.e., cutting, piling, and burning) were all part of the same project. While this practice is necessary to account for how appropriated funding is spent, the reported acreage does not fully account for when the overall objective of the hazardous fuels reduction project is actually accomplished. The overall objective of the hazardous fuels reduction project is to reduce the risk of wildfire to the landscape and surrounding communities by removing the hazardous fuels. This inaccurate reporting caused FS to over-report its hazardous fuels reduction accomplishments in FYs 2012-2014 by 103,459 acres, out of 3,703,848 acres, or a difference of 2.8 percent.[27]

FS officials developed this process to account for work performed and funds allocated on hazardous fuels reduction projects. However, this process should not be used for reporting the actual acres treated because the method overstates the amount of acres actually treated for hazardous fuels. This method does not account for when the desired outcome from a hazardous fuels reduction project, which can consist of more than one procedure, is actually accomplished. We reported this condition in the 2006 OIG report; however, FS has not taken the necessary action to correct it (see Exhibit B). During a discussion with the agency, it informed us that it is planning to address the issue of double- and triple-counting acreage. Starting in FY 2016, FS will begin tracking accomplishments using a new tracking measure. This new tracking measure will only be used to track the amount of acres that have had all the required procedures completed. FS will only count the acreage as completed, or "accomplished," once it has reached the desired condition.[28]

FS Misreported the Number of Acres Treated for Hazardous Fuels Reduction in High-Priority WUI Areas

We found that FS overstated the number of acres it treated for hazardous fuels reduction within high-priority WUI areas. This occurred because FACTS has system limitations that make it difficult for the agency to accurately and efficiently record its accomplishments in high-priority WUI areas. This system limitation caused the amount of acres treated in WUI areas, as calculated from six projects selected from one FS district, to be overstated by 37 percent.[29]

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[27] When the data from Region 8 are removed from the national total, the difference between actual acreage accomplished (i.e., where acres are counted only when the entire project is complete) and acreage over-reported (i.e., where the same acres are counted for each procedure performed to complete the project) increases to 9.9 percent. Region 8 primarily uses controlled burning for hazardous fuels reduction treatments, which results in only one procedure per piece of land to complete a project, and therefore it accurately records these procedures as single accomplishments. Region 8 treats by far the most acres in the country through burning. If Region 5 is analyzed by itself, the rate of overstatement is 16.3 percent.

[28] The desired condition would be outlined in the National Environment Policy Act documents that have been created for the indicated acreage.

[29] We identified this system limitation during a FACTS demonstration conducted by FS staff. During the demonstration, we viewed the data input screens showing the information that could be entered into FACTS for the work performed on a hazardous fuels reduction project.

Due to the nature of WUI areas and the way that project areas are defined, a project area may be considered "all WUI," "partially WUI," or, if it contains no WUI areas at all, "non-WUI." However, FACTS does not allow users to input the correct acreage for projects that are only "partially WUI." Users can only make two choices from a drop-down menu: "Y" for WUI, or "N" for non-WUI.

When we spoke to the WO regarding this limitation in FACTS it informed us that it did not see this as a limitation. FS business rules stated that all subunits within a larger area of land had to be entered into FACTS as either "Y" for WUI or "N" for non-WUI. A unit could be subdivided in FACTS to separate WUI areas from non-WUI areas, facilitating accurate accounting for treatments within those subunits. For example, if an area that underwent treatment had both WUI and non-WUI areas within it, the area could be subdivided into two portions, and entered into FACTS as two subunits. Then, the user could identify each subunit as WUI or non-WUI, as the situation warranted. While this process is currently possible, we found that FS staff at the ranger districts we visited, that treated both WUI and non-WUI acres within the same project, did not actually subdivide the area into two portions, WUI and non-WUI, and enter each separately into FACTS.[30] According to FS WO officials, because we found this condition at the ranger districts we visited, it is likely occurring elsewhere. We believe that such a practice is not only inefficient, but increases the potential for errors.

FS Staff Did Not Establish Controls or Procedures to Ensure Accurate Data Collection

While evaluating the data discrepancies in FACTS, we found that FS had not conducted standardized data reviews to ensure the timeliness and accuracy of the data entered. While WO conducts some reviews of FACTS data,[31] these reviews are not formalized and do not include steps to ensure that the data entered into FACTS reflect the actual work done at the ground level. Also, regions do not thoroughly review FACTS entries within their national forests to validate or ensure that the data entered truly reflect the work that has been done. However, as we demonstrated above, some system limitations in FACTS contributed to the misreported data, and a lack of internal controls surrounding data entry adds to the potential for error.

At the FS district we cited above that had overstated its WUI accomplishments by 37 percent, we found data entry errors that contributed to the misreported statistics. Four of the six projects we reviewed were incorrectly identified as occurring completely within WUI areas when they were not actually within WUI areas at all. When this acreage is combined with the errors caused by FACTS limitations previously discussed, the total amount of treated WUI acreage over-reported by these six projects was 67 percent. In an

[30] At three of the ranger districts visited (Wakulla Ranger District, Mt. Shasta Ranger District, and Shasta Lake Ranger District), we determined this by comparing the information contained in the project files we reviewed to what was actually entered into FACTS. At the remaining three ranger districts visited (Front Country Ranger District, Mountain Top Ranger District, and De Soto Ranger District), this issue did not apply because the hazardous fuels reduction projects we reviewed were all in WUI areas.

[31] These reviews vary by forest and region. At WO, reports are generated to check for missing or inconsistent data. We did not find any verification processes or comparisons, at any level, of data entered versus work performed.

> instance noted in another forest, the acreage treated on one particular project was overstated by 63 percent (716 acres).[32] Had FS conducted some type of formal review of FACTS data, it is possible these errors would have been corrected before the incorrect acreage amounts had been reported.
>
> The FS budget justification states that "The agency also requires regional-level leadership to certify that all appropriate procedures have been performed to ensure validity and reliability of key performance data, and to document data items that do not meet the standard."[33] Currently, there are no written standards or procedures for FACTS data validation, and this regional-level leadership certification is not applied.

The inaccurate reporting of acreage treated for hazardous fuels reduction in WUI areas causes FS field and upper level management to have inaccurate knowledge of the amount of fuels reduction work done in WUI areas. This misreported information is also reported to Congress as hazardous fuels reduction accomplishments. We acknowledge FS' efforts to improve procedures for documenting acres treated for hazardous fuels reduction. However, to ensure accuracy going forward, we believe that FS needs to enact stronger controls over reporting and data entry for hazardous fuels reduction treatments, both in WUI areas and non-WUI areas, and adjust FACTS to account for system limitations.

Recommendation 7

Implement a new tracking measure that will count and report acres treated for hazardous fuels reduction as an accomplishment only after the entire project has been completed and the desired condition is achieved.

Agency Response

In its June 27, 2016, response, FS stated:

> The Forest Service concurs with this recommendation. To better answer the question of how many acres have had cumulative treatments that mitigate the hazardous fuel threat, the Forest Service has added an additional field in the reporting system to record whether a particular treatment is the final treatment that achieves the project objective of mitigation of hazardous fuel conditions. For 2016 we will record the accomplishments for hazardous fuels mitigation to use as a baseline to inform targets in future years.

FS provided an estimated completion date of June 30, 2017, for this action.

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[32] While all of the above FACTS data inaccuracies were ultimately corrected, it was not done until after the information would have been reported publicly as an annual accomplishment.
[33] USDA FS, *FY 2015 Budget Justification,* 1-6 (March 2014).

OIG Position

We accept FS' management decision on this recommendation.

Recommendation 8

Modify FACTS so that it can accommodate a single entry for each hazardous fuels reduction project that records both the number of WUI and non-WUI acres treated.

Agency Response

In its June 27, 2016, response, FS stated:

> The Forest Service generally concurs with this recommendation. The FACTS system already accommodates separate entries for both WUI and non-WUI acres, though a separate entry unit (SUID) must be used. However, when the FACTS modernization is complete this process will be even more transparent due to the use of spatial accomplishment tracking.

FS provided an estimated completion date of January 31, 2018, for this action.

OIG Position

We do not accept management decision on this recommendation. As reported, FS' current methodology for dividing hazardous fuels treatments into subunits when the treatment affects both WUI and non-WUI areas is inefficient and increases the likelihood for accomplishment reporting errors. FS staff at the ranger districts we visited that treated both WUI and non-WUI acres within the same project did not actually subdivide the areas into two portions, WUI and non-WUI, and enter them separately into FACTS, but instead reported the acres treated as either all WUI or all non-WUI. To reach management decision on this recommendation, FS needs to either (1) clarify how the FACTS modernization will accommodate a single entry for each hazardous fuels reduction project that treats both WUI and non-WUI acres, or (2) ensure that ranger districts accurately account for their WUI and non-WUI acres in FACTS, if the FACTS modernization still requires separate entries for both WUI and non-WUI acres.

Recommendation 9

Strengthen controls surrounding the review process to ensure that all information is timely and accurately entered into FACTS.

Agency Response

In its June 27, 2016, response, FS stated:

> The Forest Service concurs with this recommendation. The hazardous fuels reporting database is the cumulative result of data entry from hundreds of individual Forest Service employees. There is always room for improvement. The Forest Service will update the hazardous fuels reporting guidance to further emphasize timeliness and accuracy in data input. The regional data coordinators and the National Data Coordinator will collaborate on ways to make sure that the data is consistent and reliable. Training sessions will emphasize the importance of data timeliness and accuracy. The Forest Service will document the procedures currently used, and any needed improvements, for national level data analysis of completeness and accuracy.

FS provided an estimated completion date of June 30, 2017, for this action.

OIG Position

We accept FS' management decision on this recommendation.

Finding 3: FS Needs to Account for Actual Work Performed on Hazardous Fuels Reduction Activities

We found that FS staff in five of the six ranger districts visited charged work hours to the WFHF (Hazardous Fuels Reduction) budget line item for activities that may not have been in support of hazardous fuels reduction. They generally charged their time based on planned work rather than actual work performed. This condition occurred because staff were directed to charge their time this way, despite FS guidance to the contrary, in order to simplify recordkeeping and to ensure that the predetermined number of days planned for hazardous fuels reduction were actually charged to the WFHF budget line item. Without an accurate accounting of time worked on activities, FS has no way of knowing what it actually spent on hazardous fuels reduction related work or whether it appropriately met the funding levels approved by Congress.

FS Handbook 6509.11g states "Charge all costs to the Forest Service program or activity in which work was performed….Do not charge costs 'as planned.'"[34]

We found during our fieldwork that FS staff did not always charge time according to the activity they worked on. At the Shasta Trinity National Forest in Region 5, we found that each fiscal year, staff who primarily worked on fire preparedness-related activities (e.g., fire detection, fire weather monitoring, and preparedness planning) were assigned a specific number of days to charge the WFHF budget line item. FS policy[35] permits the use of preparedness resources funded under the WFPR (Fire Preparedness) budget line item for hazardous fuels reduction activities as long as those preparedness resources are able to timely respond to fire-related emergencies. The expectation was that these staff would, at a minimum, complete the number of days they were assigned to perform hazardous fuels-related activities and charge the WFHF budget line item accordingly. If the staff exceeded those assigned days, that time would be charged to the regular job code, the WFPR budget line item.

According to FS staff at the Mt. Shasta and Shasta Lake Ranger Districts on the Shasta Trinity National Forest, supervisors told them which budget line items to charge, which may or may not have reflected the actual work they were performing. In fact, the staff at the Shasta Lake Ranger District were instructed by a supervisor to go back and modify their time cards without regard to the actual type of work they performed in order to charge their assigned number of days to the WFHF budget line item. The staff also told us they were directed by a supervisor to charge their time "as planned," rather than according to the actual work they performed.

Some of the staff at the two ranger districts within the Shasta Trinity National Forest, whose primary job duties were preparedness-related activities, told us that they often work on hazardous fuels-related activities for more than their allocated number of days, and this additional hazardous fuels-related work was charged to the WFPR budget line item. While FS policy does allow these particular staff members to assist in hazardous fuels-related activities, FS policy clearly states that they should be charging time for the activity they are working on, and not the

[34] USDA FS, *Service-Wide Appropriation Use Handbook*, FSH 6509.11g, "Chapter - Zero Code," 15 (April 2010).
[35] USDA FS, *Service-Wide Appropriation Use Handbook*, FSH 6509.11g, Ch. 50, "Wildland Fire Management," 8 (January 2009).

regular job code WFPR. FS officials at the national forest told us they were fully aware that FS policy does not allow work to be charged as planned. However, staff were directed either verbally or in writing to charge time "as planned" to ensure that the WFHF budget line item had the planned number of work days charged to it; if the WFHF budget line item has funds left over at the end of the fiscal year, those funds have to be returned to the region for distribution to other activities. Furthermore, charging time "as planned" simplified the recordkeeping process. We found similar issues at other ranger districts in both Region 5 and Region 8. One supervisor that we spoke to at the Wakulla Ranger District in Region 8 (who had been at the ranger district for 18 years) told us that the ranger district has charged time this way for as long as he has been there.

On November 16, 2015, we briefed a WO budget official on our finding. He concurred that FS direction clearly states that staff should be charging the appropriate budget line item based on actual work performed. He further stated that not following the agency's internal policies and not charging the appropriate budget line item for the activity on which they worked impedes the agency's ability to accurately track and account for the costs incurred for its various programs and activities. To facilitate accuracy, FS needs to instruct its regions to comply with FS direction and require staff to charge all costs to the FS program or activity for which work was actually performed.

Recommendation 10

Instruct all FS regions to comply with Handbook 6509.11g requiring that staff charge all costs to the FS program or activity on which work was performed.

Agency Response

In its June 27, 2016, response, FS stated:

> The Forest Service concurs with this recommendation. The Agency will communicate the importance of the charge-as-worked policy to all employees, especially line and budget officers, and encourage supervisors to discuss the matter with their subordinates. Multiple media will be employed to disseminate these communications.

FS provided an estimated completion date of June 30, 2017, for this action.

OIG Position

We accept FS' management decision on this recommendation.

Recommendation 11

Follow up with FS regions to ensure compliance with the prior recommendation.

Agency Response

In its June 27, 2016, response, FS stated:

> FS concurs with this recommendation. The Agency will follow up with Forest Service regions to ensure compliance with the prior recommendation.

FS provided an estimated completion date of June 30, 2017, for this action.

OIG Position

We accept FS' management decision on this recommendation.

Scope and Methodology

We conducted a nationwide audit of FS' hazardous fuels reduction activities on NFS land. The scope of our audit work covered hazardous fuels reduction activities accomplished during FYs 2012-2014. To accomplish our objectives, we performed fieldwork at the agency's WO, located in Washington, D.C.; 3 of the 9 regional offices; and 4 of the 154 national forests. We also conducted audit fieldwork at six ranger districts within those four national forests. For specific locations visited, see Exhibit A. We performed our audit fieldwork from July 2014 through November 2015.

We non-statistically selected two regional offices for review based on the amount of hazardous fuels reduction funding received; the number of hazardous fuels reduction projects; the number of projects done in WUI areas and that involved a CWPP; and the hazardous fuels reduction acreage accomplished. We selected a third regional office because it was the only region that had completed a risk assessment, as discussed in Finding 1 of this report. The purpose of our review at the third regional office was solely to review its risk assessment.

National forests were non-statistically selected based on the amount of hazardous fuels reduction funding received; the percentage of hazardous fuels reduction projects in WUI areas and with CWPPs; and the hazardous fuels reduction acreage accomplished. Ranger districts were also non-statistically selected based on the amount of hazardous fuels reduction funding received; the percentage of hazardous fuels reduction projects in WUI areas and with CWPPs; and the hazardous fuels reduction acreage accomplished. At the 6 ranger districts, we non-statistically selected 36 out of 441 hazardous fuels reduction projects that were completed during FYs 2012-2014 based on the size of the projects and whether or not the projects were in WUI areas.

In developing the findings for this report, we performed the following steps and procedures:

At the FS' WO (see Exhibit A), we:

- Reviewed the pertinent laws, regulations, policies, and procedures for identifying, prioritizing, implementing, monitoring, and reporting hazardous fuels reduction projects on NFS land;

- Interviewed key personnel to gain an understanding of FS' processes for identifying, prioritizing, implementing, monitoring, and reporting hazardous fuels reduction projects on NFS land;

- Ascertained the impact that CWPPs had on the FS' process for selecting hazardous fuels reduction projects;

- Identified FS' key information systems used for tracking and reporting hazardous fuels reduction accomplishments; and

- Ascertained the status of FS' corrective action on recommendations made in our prior audit of FS' implementation of HFI (Audit Report 08601-6-AT, issued September 2006).

At selected FS regions (see Exhibit A), we:

- Reviewed any supplemental guidance the regional office issued for identifying, prioritizing, implementing, monitoring, and reporting hazardous fuels reduction projects on NFS land;

- Interviewed key personnel at the regional office to determine their roles and responsibilities pertaining to identifying, prioritizing, implementing, monitoring, and reporting hazardous fuels reduction projects on NFS land;

- Interviewed key personnel at the regional office to gain an understanding of the region's processes for identifying, prioritizing, implementing, monitoring, and reporting hazardous fuels reduction projects on NFS land;

- Ascertained the impact that CWPPs had on the regional office's process for selecting hazardous fuels reduction projects;

- Obtained and reviewed data from FACTS on the region's hazardous fuels reduction accomplishments and tested it for accuracy; and

- Interviewed key staff at FS' Rocky Mountain Regional Office regarding its risk assessment used to select hazardous fuels reduction projects.

At selected FS national forests (see Exhibit A), we:

- Reviewed any supplemental guidance the national forest issued for identifying, prioritizing, implementing, monitoring, and reporting hazardous fuels reduction projects on NFS land;

- Interviewed key personnel at the national forest to determine their roles and responsibilities pertaining to identifying, prioritizing, implementing, monitoring, and reporting hazardous fuels reduction projects on NFS land;

- Interviewed key personnel at the national forest to gain an understanding of the national forest's processes for identifying, prioritizing, implementing, monitoring, and reporting hazardous fuels reduction projects on NFS land;

- Ascertained the impact that CWPPs had on the national forest's process for selecting hazardous fuels reduction projects; and

- Obtained and reviewed data from FACTS on the national forest's hazardous fuels reduction accomplishments and tested it for accuracy.

At selected FS ranger districts (see Exhibit A), we:

- Reviewed any supplemental guidance the ranger district issued for identifying, prioritizing, implementing, monitoring, and reporting hazardous fuels reduction projects on NFS land;

- Interviewed key personnel at the ranger district to determine their roles and responsibilities pertaining to identifying, prioritizing, implementing, monitoring, and reporting hazardous fuels reduction projects on NFS land;

- Interviewed key personnel at the ranger district to gain an understanding of the ranger district's processes for identifying, prioritizing, implementing, monitoring, and reporting hazardous fuels reduction projects on NFS land;

- Ascertained the impact that CWPPs had on the ranger district's process for selecting hazardous fuels reduction projects; and

- Obtained and reviewed data from FACTS on the ranger district's hazardous fuels reduction accomplishments and tested it for accuracy.

For selected projects at the ranger districts, we:

- Performed a file review to assess whether the project was completed in accordance with its priority rating and in accordance with applicable fire management planning documents, monitored during project completion, and accurately tracked and reported in FACTS; and

- When weather permitted, visited the project site to assess the status of the work performed.

In addition, we obtained from FS officials at the sites we visited a list of their hazardous fuels reduction accomplishments for FYs 2012-2014. FS officials compiled these lists from FACTS. We conducted limited testing to evaluate the adequacy, accuracy, and reliability of the information reported from FACTS. Our testing consisted of reviewing the data input screens showing the information that could be entered into FACTS for the work performed on hazardous fuels reduction projects to identify any system limitations and comparing the information entered into FACTS to source documentation contained in the project files. The results of this testing are further explained in Finding 2.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Abbreviations

CWPP..... Community Wildfire Protection Plan
FACTS ..... Forest Activity Tracking System
FLAME ..... Federal Land Assistance, Management, and Enhancement Act
FS ..... Forest Service
FY ..... Fiscal Year
GAO ..... U.S. Government Accountability Office
GPRA ..... Government Performance and Results Modernization Act of 2010
HFI ..... Healthy Forests Initiative
HFPAS ..... Hazardous Fuels Priority Allocation System
HFRA ..... Healthy Forests Restoration Act
HVRA ..... Highly Valued Resources and Assets
NF ..... National Forest
NFS ..... National Forest System
OIG ..... Office of Inspector General
USDA ..... United States Department of Agriculture
WFHF ..... Hazardous Fuels Reduction
WFPR..... Fire Preparedness
WO ……..Washington Office
WUI……..Wildland-Urban Interface

Exhibit A: Audit Sites Visited

This exhibit shows the name and location of all FS sites visited.

AUDIT SITE	LOCATION
FS Washington Office	Washington, D.C.
FS Rocky Mountain Regional Office (Region 2)	Golden, CO
FS Pacific Southwest Regional Office (Region 5)	Vallejo, CA
National Forests (NF) in Region 5	
Shasta Trinity NF	Redding, CA
San Bernardino NF	San Bernardino, CA
Ranger Districts in Shasta Trinity NF	
Mt. Shasta Ranger District	McCloud, CA
Shasta Lake Ranger District	Redding, CA
Ranger Districts in the San Bernardino NF	
Mountain Top Ranger District	Fawnskin, CA
Front Country Ranger District	Lytle Creek, CA
FS Southeast Regional Office (Region 8)	Atlanta, GA
NFs in Region 8	
NFs in Florida	Tallahassee, FL
NFs in Mississippi	Jackson, MS
Ranger District in NFs in Florida	
Wakulla Ranger District	Crawfordville, FL
Ranger District in NFs in Mississippi	
De Soto Ranger District	Wiggins, MS

Exhibit B: Summary of OIG Assessment of the Prior Audit Recommendations (08601-6-AT)

The chart below displays the summary of the five prior recommendations that were closed from the *Implementation of the Healthy Forests Initiative* report, dated September 2006.

RECOMMENDATION 1 Develop and implement specific, national guidance for assessing the risks of wildland fires and determining the benefits of fuels treatment and restoration projects. These processes should be applied on a consistent basis among regions, forests, and districts, so the FS can prioritize and fund the most beneficial and cost effective fuel reduction projects.	
Agency's Response	**Were Corrective Actions Effective?**
FS will develop national guidance for the regions to use in assessing the risks from wildfires and in determining the benefits of fuels treatments and restoration projects.	**No.** FS developed guidance for its regions to use to distribute hazardous fuels reduction funds to the regions' national forests; however, no guidance was developed at a national scale for national forests and/or ranger districts (which are the units that select and implement hazardous fuels reduction projects) to use to identify and prioritize hazardous fuels reduction projects.
RECOMMENDATION 2 Establish controls to ensure that the process and methodology to identify and prioritize the most effective fuels reduction projects can be utilized at all levels.	
Agency's Response	**Were Corrective Actions Effective?**
FS will establish controls to assist the regions in identifying and prioritizing hazardous fuels projects. The elements to be evaluated may include such things as the proximity to a community, fuel type, condition class, and others, so that areas with the greatest needs are properly identified and receive the highest priority.	**No.** FS relied on the development of HFPAS to address this recommendation; however, development of HFPAS did not satisfy the requirement to establish controls to ensure that the process and methodology to identify and prioritize the most effective fuels reduction projects would be used at all levels.
RECOMMENDATION 3 Establish controls to ensure funds are distributed according to where the highest concentrations of priority projects are located nationally.	

Agency's Response	Were Corrective Actions Effective?
FS is in the process of developing a regional fuels allocation strategy. Once complete, this strategy will effectively link the regional funding and associated fuels reduction projects to ensure that the priority projects are funded.	**Yes.**
RECOMMENDATION 4 Develop and implement a more meaningful and outcome-oriented performance measure for reporting metrics, such as acres where the condition class changed as a result of treatment. FS should also direct that implementing effective, integrated treatments is more important than solely meeting acreage targets. FS should also use annual targets assigned as a multi-year average rather than a firm FY total.	
Agency's Response	**Were Corrective Actions Effective?**
The FS Wildland Fire Program recently developed a core set of new performance measures for use in its strategic plan, OMB PART reassessments, and other performance and budget documents. One of those recommendations is "Number of acres maintained and improved by treatment category (prescribed fire, mechanical, and wildland fire use) and of those improved, the percent that change condition class."	**Yes.**
RECOMMENDATION 5 Improve accomplishment reporting by including more detailed information, such as breaking down accomplishments by region, noting changes in condition class, and differentiating between initial and maintenance treatments and multiple treatments on the same acres.	
Agency's Response	**Were Corrective Actions Effective?**
FS will update its reporting systems and documents to include more detailed information on accomplishments, as noted in the recommendation.	**No.** FS continued to overstate the number of acres treated for hazardous fuels reduction because it still counts the same acreage multiple times when the project consisted of more than one procedure (such as cutting, piling, and burning) to achieve the desired condition.

USDA'S
FOREST SERVICE
RESPONSE TO AUDIT REPORT

Forest Service **Washington Office** **201 14th Street, SW**
Washington, DC 20250

File Code: 1430 **Date:** June 27, 2016

Subject: FS Response to Office of Inspector General Audit Report No. 08601-0004-41, "FS Wildland Fire Activities – Hazardous Fuels Reduction"

To: Gil H. Harden, Assistant Inspector General for Audit, Office of Inspector General

Thank you for the opportunity to review and comment on Office of Inspector General (OIG) Draft Report Number 08601-0004-41. The Forest Service generally concurs with the findings and recommendations and appreciates the time and effort that went into the report. The agency's response to the audit recommendations is enclosed. Please contact Thelma Strong, Chief Financial Officer, at (202) 205-1321 or tstrong@fs.fed.us with any questions.

/s/ Thomas L. Tidwell

THOMAS L. TIDWELL
Chief

Enclosure

Cc: Erica Banegas, Erica Kim, James Hubbard

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USDA Forest Service

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Forest Service Response to
Office of Inspector General (OIG) Official Draft Audit Report No. 08601-0004-41
Forest Service Wildland Fire Activities – Hazardous Fuels Reduction
June 27, 2016

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Recommendation 1: Fully develop and implement the national risk assessment model for identifying and prioritizing hazardous fuels reduction projects on National Forest System lands.

FS Response (06/27/2016):

The Forest Service concurs with this recommendation. The national office is developing a national risk model that will be used to identify and prioritize hazardous fuels reduction areas. The results will inform allocation of resources to the regional level. Projects will be designed based on those priority areas, however, the priority of implementation of individual projects is not a national-scale decision.

Estimated Completion Date: June 30, 2017

Recommendation 2: Issue guidance to the regions on how to develop their own risk assessments consistent with the national risk assessment model to identify and prioritize hazardous fuels reduction projects.

FS Response (06/27/2016):

The Forest Service concurs with this recommendation. The national office has already developed training and workshops on how to develop risk assessments at the regional and sub-regional scales. This training is currently being tested and refined.

Estimated Completion Date: June 30, 2017

Recommendation 3: Require that all regions develop risk assessments that identify and prioritize hazardous fuels reduction projects.

FS Response (06/27/2016):

The Forest Service concurs with this recommendation. Several regions have already developed initial risk assessments and several more are underway. However, the process is not identical in every region. For example, the Pacific Southwest is developing sub-regional risk assessments to more effectively consider variations of conditions within the region; also the Southern Region is developing a method to adapt the already-developed Southern Wildland Fire Risk Assessment that was a collaborative effort between all the state partners.

Estimated Completion Date: June 30, 2017

Recommendation 4: Require the Washington Office to review and approve regional risk assessments to ensure consistency with the national risk assessment model.

FS Response (06/27/2016):

The Forest Service concurs with this recommendation. The regional risk assessments are being developed in a collaborative process between the regions and the national office. Lessons learned from one regional risk assessment are passed along to the other regions for possible application. The national risk assessment will function as both a baseline assessment for the regions and as a consistency check against the regional assessments to compare the results. Analysis of contradictions can be informative.

Estimated Completion Date: June 30, 2017

Recommendation 5: Require regions to formally document the project selection process.

FS Response (06/27/2016):

The Forest Service concurs with this recommendation. The national office will ask the regional offices to describe their project and priority selection process and how the risk assessment was used to inform the decisions.

Estimated Completion Date: June 30, 2017

Recommendation 6: Develop and implement a formal review process to evaluate regions' hazardous fuels project identification and prioritization processes implemented within their respective national forests.

FS Response (06/27/2016):

The Forest Service concurs with this recommendation. This recommendation is closely linked with recommendations 4 and 5. Helping the regions develop their risk assessments and documentation of the decision-making process will form an effective review and evaluation of the regional identification and prioritization processes.

Estimated Completion Date: June 30, 2017

Recommendation 7: Implement a new tracking measure that will count and report acres treated for hazardous fuels reduction as an accomplishment only after the entire project has been completed and the desired condition is achieved.

FS Response (06/27/2016):

The Forest Service concurs with this recommendation. To better answer the question of how many acres have had cumulative treatments that mitigate the hazardous fuel threat, the Forest Service has added an additional field in the reporting system to record whether a particular treatment is the final treatment that achieves the project objective of mitigation of hazardous fuel conditions. For 2016 we will record the accomplishments for hazardous fuels mitigation to use as a baseline to inform targets in future years.

Estimated Completion Date: June 30, 2017

Recommendation 8: Modify FACTS so that it can accommodate a separate entry for each hazardous fuels reduction project that records both the number of WUI and non-WUI acres treated.

FS Response 06/27/2016:

The Forest Service generally concurs with this recommendation. The FACTS system already accommodates separate entries for both WUI and non-WUI acres, though a separate entry unit (SUID) must be used. However, when the FACTS modernization is complete this process will be even more transparent due to the use of spatial accomplishment tracking.

Estimated Completion Date: January 31, 2018

Recommendation 9: Strengthen controls surrounding the review process to ensure that all information is timely and accurately entered into FACTS.

FS Response 06/27/2016:

The Forest Service concurs with this recommendation. The hazardous fuels reporting database is the cumulative result of data entry from hundreds of individual Forest Service employees. There is always room for improvement. The Forest Service will update the hazardous fuels reporting guidance to further emphasize timeliness and accuracy in data input. The regional data coordinators and the National Data Coordinator will collaborate on ways to make sure that the data is consistent and reliable. Training sessions will emphasize the importance of data timeliness and accuracy. The Forest Service will document the procedures currently used, and any needed improvements, for national level data analysis of completeness and accuracy.

Estimated Completion Date: June 30, 2017

Recommendation 10: Instruct all Forest Service regions to comply with Handbook 6509.11g requiring that staff charge all costs to the Forest Service program or activity on which work was performed.

FS Response 06/27/2016:

The Forest Service concurs with this recommendation. The Agency will communicate the importance of the charge-as-worked policy to all employees, especially line and budget officers, and encourage supervisors to discuss the matter with their subordinates. Multiple media will be employed to disseminate these communications.

Estimated Completion Date: June 30, 2017

Recommendation 11: Follow up with Forest Service regions to ensure compliance with the prior recommendation.

FS Response 06/27/2016:

FS concurs with this recommendation. The Agency will follow up with Forest Service regions to ensure compliance with the prior recommendation.

Estimated Completion Date: June 30, 2017

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