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Office of Inspector General
Southeast Region

Audit Report

Implementation of the Healthy Forests Initiative

Report No. 08601-6-AT
September 2006



UNITED STATES DEPARTMENT OF AGRICULTURE
OFFICE OF INSPECTOR GENERAL

Washington, D.C. 20250



September 6, 2006

REPLY TO

ATTN OF: 08601-6-At

TO: Dale Bosworth
Chief
Forest Service

ATTN: Sandy Coleman
Agency Liaison
Office of the Chief Financial Officer

FROM: /s/ Tracy LaPoint (for)
Robert W. Young
Assistant Inspector General
for Audit

SUBJECT: Implementation of the Healthy Forests Initiative

This report presents the results of our review of the Forest Service's Implementation of the Healthy Forests Initiative. Your August 17, 2006, written response to the official draft report is included in its entirety as exhibit A, with excerpts and the Office of Inspector General position incorporated into the Findings and Recommendations section of the report, where applicable. Based on your response, we have accepted management decision on all recommendations in the report.

Please follow your agency's internal procedures in forwarding documentation for final action to the Office of the Chief Financial Officer. Final action on the management decisions should be completed within 1 year of the date of this report to preclude being listed in the Department's Performance and Accountability Report.

We appreciate the cooperation and assistance provided to our staff during the audit.

Executive Summary

Implementation of the Healthy Forests Initiative, Audit Report No. 08601-6-At

Results in Brief

This report presents the results of the Office of Inspector General's audit of Forest Service's (FS) implementation of the Healthy Forests Initiative (HFI). We focused our audit work on the hazardous fuels reduction program, because more than half of FS' funding under HFI is allocated for this purpose. Specifically, our objectives were to assess FS' management controls over its program that affect (1) determining if projects are cost beneficial, (2) identifying and prioritizing projects, (3) allocating funds between projects, and (4) reporting accomplishments.

Our audit found that FS lacks 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. FS has not developed specific national guidance for weighing the risks against the benefits of fuels treatment and restoration projects. This may result in FS not being able to reduce the total number of acres at risk to severe wildland fire or assure maintenance of areas improved by fuels treatment in the most efficient and cost effective manner.

Also, FS' controls for identifying and prioritizing hazardous fuels projects do not ensure that the highest priority fuels reduction projects are being implemented. These controls are lacking because the FS has not issued specific national guidance on identifying and prioritizing projects. Under the FS' decentralized management structure, the identification and prioritization of projects is performed by and at the discretion of individual field units. This may result in the application of various methodologies for identifying the most effective fuels reduction projects.

The FS does not have the ability to ensure that the most important projects are funded first. Because projects are not prioritized under uniform, national criteria, there is no way to allocate funds to the most critical projects. Funds are currently allocated based upon units' historical funding levels and targets for number of acres to be accomplished that are set by the FS' Washington Office (WO). There are no controls in place to prevent funds from being allocated to projects in order to achieve targets of acres treated instead of reducing the most risk. This may lead to less important projects being funded and completed and higher fire suppression and fuel reduction costs in later periods.

The lack of specific controls for allocating hazardous fuels reduction funds may result in FS funds not being used as intended by the HFI and the Healthy Forests Restoration Act (HFRA). The FS cannot clearly identify the level of risk to communities from wildfire. It cannot demonstrate to stakeholders its

accomplishments in reducing those risks with the funds provided. Without this ability the FS cannot adequately justify and defend increasing or decreasing funding when the need arises. Therefore, FS may not be able to reduce the threat of catastrophic wildfires and improve the health of our nation's forests as intended by the HFI, HFRA, 10-Year Comprehensive Strategy, and Strategic Plan.

FS' performance measures and reporting standards are also not characterized in any qualitative format. The measures and standards do not communicate whether the treatment of an acre has resulted in changing its condition class.¹ They do not address whether a hazardous fuels project reduces the risk from catastrophic wildland fire. The focus has been on achieving firm annual targets (output) that are measured in the number of acres treated. However, these acres are not homogenous. Some acres of hazardous fuels create much more risk to communities and resources than others. Reporting the number of acres treated does not communicate the amount of risk that has been reduced. The emphasis on achieving acres treated is overriding the need to accomplish more effective and better-integrated treatments that achieve the desired fuel and restoration outcomes. In addition, hazardous fuels accomplishment reports do not provide detailed information to evaluate the overall progress of the program; details such as the location of treatments, changes in condition class, and initial or maintenance treatments are not reported.

Recommendations in Brief

We recommend the FS Washington Office:

- Develop and implement specific national guidance for assessing the risks from wildland fires and determining the benefits of fuels treatment and restoration projects. These processes should be able to be applied on a consistent basis between regions, forests and districts, so the FS may be able to prioritize and fund the most beneficial and cost effective fuels reduction projects.
- 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.
- Establish controls to ensure funds are distributed according to where the highest concentrations of priority projects are located nationally.

¹ The fire-regime condition class is an expression of the departure of the current condition from the historical fire regime and is measured as a 1, 2, or 3.

- Develop and implement a more meaningful and outcome-oriented performance measure for reporting metrics, such as acres with “risk reduced” or “area protected.” 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 fiscal year total.
- 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 Response FS’ August 17, 2006, response to the official draft report agreed with the recommendations presented.

OIG Position We accept FS’ management decisions. The full text of FS’ response to the official draft report is included in exhibit A.

Abbreviations Used in this Report

CWPP	Community Wildfire Protection Plan
DOI	Department of Interior
FPA	Fire Program Analysis
FS	Forest Service
FY	Fiscal Year
GAO	Government Accountability Office
HFI	Healthy Forests Initiative
HFRA	Healthy Forests Restoration Act
NFP	National Fire Plan
NFPORS	National Fire Plan Operations and Reporting System
NFS	National Forest System
OIG	Office of Inspector General
WO	Washington Office
WUI	Wildland-Urban Interface

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Background and Objectives

Background

The U.S. Department of Agriculture, through the 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. FS oversees 155 national forests and 20 grasslands. Recently, communities have become increasingly part of at risk areas known as the wildland-urban interface (WUI), creating a greater challenge for fire protection. FS manages more than 192 million acres in the National Forest System (NFS), while an estimated 73 million acres of this land and 59 million acres of privately owned forest 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. It has been estimated that these hazardous fuels 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 costs of wildfires.

Recognizing the need to reduce the threat of catastrophic wildfires and improve the health of our nation's forests, the President announced the Healthy Forests Initiative (HFI) on August 22, 2002. The Initiative, a combination of administrative initiatives and legislative changes, provides land managers additional tools they need to reduce wildland fire risks, control insects and disease, and restore forest health. Specifically, it directs the Secretary of Agriculture and the Secretary of the Department of Interior (DOI) to improve regulatory processes to ensure more timely decisions, greater efficiency, and better results in reducing the risk of catastrophic wildfires by restoring forest health. This includes improving procedures for developing and implementing hazardous fuels treatment 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 fuels treatment projects.

On December 3, 2003, President Bush signed the Healthy Forests Restoration Act (HFRA) into law. In passing the HFRA, Congress provided the Administration additional tools to fully implement the President's HFI. The legislation provides 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. The Act is divided into six titles and addresses hazardous fuels reduction on Federal land, biomass, watershed forestry assistance, insect infestations and related diseases, the Healthy Forests Reserve Program, and forest inventory and monitoring. Title I addresses hazardous fuels reduction efforts, the specific focus of our audit work.

Title I of HFRA authorizes a new alternative process for reducing fuels on up to 20 million acres of national forests. The act requires allocating at least 50 percent of Federal hazardous fuels reduction funds to protect communities and priority is directed to protecting “at-risk communities” and municipal watersheds. Authorized projects must be consistent with land management plans and are generally to focus on small trees, thinning, fuel breaks, and prescribed burning. The law authorizes \$760 million annually for authorized projects and for any other fuel reduction activities, including grants to States.

Both HFI and HFRA, coupled with other authorities such as the National Fire Plan (NFP), assist land managers in restoring forest health. NFP was developed in August 2000 with the intent of actively responding to severe wildland fires and their impacts to communities while ensuring sufficient firefighting capacity for the future. NFP established an intensive, long-term hazardous fuels reduction program. As part of the NFP direction, Congress mandated several reporting requirements including the creation of a coordinated national 10-Year Comprehensive Strategy. Therefore, in August 2001, the Secretaries of Agriculture and DOI joined the Western Governors’ Association, National Association of State Foresters, National Association of Counties, and the Intertribal Timber Council to issue *A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: A 10-Year Comprehensive Strategy*.

The 10-Year Comprehensive Strategy articulates a collaborative framework for treating hazardous fuels, restoring forest health, and providing economic benefits to communities. The need for a strategy to reduce the risk of wildland fire to communities and the environment is a result of a high level of growth in WUI that is placing more citizens and property at risk of wildland fire. The increase in hazardous fuels is the result of increasing ecosystem health problems across the landscape. The development of unnaturally dense, diseased or dying forests, and treatment of wildland fire have contributed to more severe wildland fires and created widespread threats to communities and ecosystems.

During the development of this strategy, core principles were established in the areas of collaboration, priority setting, and accountability. In addition, four goals were identified which included reducing hazardous fuels. The guiding principle of the hazardous fuels reduction goal is to prioritize hazardous fuels reduction where the negative impacts of wildland fire are the greatest.

The FS administration sets annual, national targets (quantitative measures of performance and reporting objectives) for its hazardous fuels reduction program. For fiscal year (FY) 2004, the nationwide target for FS was set at 1.6 million acres treated using hazardous fuels funds, and for FY 2005 the target was 1.8 million acres. Funds are allocated to the regions based

primarily on the work completed the prior year and planned work for the current FY (i.e., targets), with executive level input prior to final allocations. The regions then allocate these funds to their respective field offices where final project decisions are made. While most hazardous fuels projects span over multiple years and include multiple treatments, the appropriations are annualized.

The National Fire Plan Operations and Reporting System (NFPORS) was developed by FS and DOI to establish centralized and standardized reporting for the agencies. The data in this system is used to plan hazardous fuels projects and report accomplishments. Information from NFPORS is compiled into monthly Healthy Forests reports, which are used by governmental managers, Congress, and other interested parties to determine the program's efficiency and effectiveness, and ultimately make funding and resource management decisions.

Annual budgets supporting HFI and Title I in HFRA focused on forest and rangeland health restoration to achieve more comprehensive and effective results on the ground. FY 2004 HFI budget provided over \$691 million and FY 2005 budget over \$810 million, of which over 60 percent was allocated to FS each year. For FY 2005, the enacted budget specific to FS' Hazardous Fuels Program was \$262 million.

FY 2006 HFI budget of over \$867 million will continue implementation of the initiative allocating \$550 million to FS. Of the FS portion, \$281 million is direct hazardous fuels funding, with which the agency plans to use to treat as much as 1.8 million acres. FS plans to prioritize fuel reduction projects within the WUI and high risk areas outside of the WUI. Specifically, more than 50 percent of the planned acres will be in WUI. By the end of FY 2006, both FS and DOI plan to have removed hazardous fuels from more than 19 million acres of the nation's forests and rangelands since the beginning of FY 2001.

Objectives

Our audit objectives were to evaluate FS' management controls for HFI to determine their adequacy and whether they are being implemented in accordance with legislation. Specifically, we assessed the FS' Washington Office (WO) management controls for hazardous fuels projects that affect (1) determining if projects are cost beneficial, (2) identifying and prioritizing projects, (3) allocating funds between projects, and (4) reporting accomplishments.

Findings and Recommendations

Finding 1

FS Needs Better Controls to Enhance Hazardous Fuels Reduction Efforts

The FS lacks a consistent analytical process for identifying and funding those fuel reduction projects that would produce the most benefits by reducing the risk of catastrophic fires that impact communities and forest resources. This has occurred because the FS has not developed or implemented specific, national guidance for assessing the level of risk that communities face from wildland fire and based on this assessment identifying and assigning priorities to those projects that will provide the greatest benefits. Further, FS has not developed a process to ensure that the highest priority projects are funded first. Instead, FS relies on field level officials to identify communities at risk and prioritize projects based on their own criteria, which vary from region to region. Without a uniform methodology for identifying high priority projects, FS may not focus its fuels reduction resources on the areas most at risk for catastrophic wildland fire.

The intent of HFI and the 10-Year Comprehensive Strategy is to ensure that communities most at risk receive priority for hazardous fuels treatments. The Initiative calls for developing and implementing fuels treatment and forest restoration projects in priority areas, and for developing guidance for weighing the short-term risks against the long-term benefits of fuels treatment and restoration projects. A main goal of the strategy is to prioritize hazardous fuels reduction where the negative impacts of wildland fire are the greatest.

FS Needs a Uniform Process for Determining and Assessing Risks of Wildland Fires to Communities and Weighing Risks Against Benefits

In order to allocate resources effectively, FS needs to be able to identify which communities and what resources are at risk, what that level of risk is, and what the benefit or payback would be from conducting a fuels reduction project. However, FS lacks a consistent analytical process for assessing the level of risk that communities face from wildland fire and determining if hazardous fuels projects are the most beneficial or cost effective. FS has not developed specific national guidance for weighing the risks against the benefits of fuels treatment and restoration projects. The identification of projects is performed by and at the discretion of individual field units, which perform various analyses to identify communities at risk. However, FS does not require the use of a specific set of criteria or analytical process to ensure that the identification of projects is consistent nationwide, or to justify the selection of one project over another. The lack of a consistent analytical

process may lead to less important projects being prioritized and higher fire suppression and fuel reduction costs in later periods.

FS officials said they do not require the field level to perform a “cost benefit” analysis of hazardous fuels reduction projects because it would be an expensive, time-consuming process and field level analyses would not be comparable because of the different vegetation types and topographical features across the country.

While we agree that requiring a traditional cost benefit analysis would be inappropriate, we concluded FS can develop a set of criteria to compare the relative degree of exposure and risk to wildland fire each community faces. Such criteria might include factors including, but not limited to, those to assess the fuel conditions on the landscape of the community and surrounding areas to determine the level of hazard, probability of fire occurrence, human and economic values being protected, and protection capability. The assessment could also include a measure of the benefits and/or consequences of selecting one project over another for treatment. The methodology for identifying and assessing the risks against the benefits needs to be comparable between field units of different geographic areas.

A March 23, 2005, independent cost-control review² of FS’ FY 2004 large cost wildfires noted that one region (Region 5) performed a “benefit-cost” analysis. The report shows that on the San Bernardino National Forest the benefit-cost ratios for fuel treatments exceeded 30:1, confirming significant potential investment returns. The report further states that after the wildfires, FS received an appropriation with funds earmarked for hazardous fuels treatments for the San Bernardino National Forest, an investment not made in other forests with the same problem. FS WO officials were unaware of the analysis conducted by Region 5 or similar analyses performed by any other regions.

FS officials believe that LANDFIRE, a new system being developed, will provide more accurate nationwide data so that they can more accurately define and identify a community most at risk. The LANDFIRE system uses satellite imagery to map the land and its vegetation and uses a suite of models to provide more detailed information (i.e., fuel models, forest canopy details, existing vegetation, vegetation structure, potential vegetation, fire regime condition classes³, fire return intervals, historical fire regimes, climate, fire

² Ferraro Inc., Independent Cost-Control Review Panel, FY 2004 Large Cost Wildfires, report. The Secretary of Agriculture chartered the FY 2004 Large Fire Cost Review panel to review high suppression expense wildfires on four national forests in three regions.

³ Fire regime areas include the following:

- Fire Regime I – An area that historically has had low-severity fires every 0 to 35 years and that is located primarily in low-elevation forests of pine, oak, and pinyon-juniper.
- Fire Regime II – An area that historically has had stand-replacement-severity fires every 0 to 35 years and that is located primarily in low- to mid-elevation rangeland, grassland, or shrubland.
- Fire Regime III – An area that historically has had mixed-severity fires every 35 to 100 years and that is located primarily in forests of mixed conifer, dry Douglas-fir, or wet ponderosa pine.

ecology, topography, soil depth, soil moisture, etc.). Eventually, it is planned that the LANDFIRE system will include information for the past 100 years on all wildfires throughout the United States, including where the fire started and ended, and the weather and climate in which they occurred.

Congress funded the LANDFIRE project in 2002, and currently a prototype has been completed for Southwestern Utah and Montana. The FS plans for the system to include information on the Western United States by 2006, Eastern United States by 2008, and Alaska and Hawaii by 2009. While LANDFIRE will provide the basis and data to evaluate a potential project/area, staff will still ultimately make project decisions.

FS also plans to use another system, Fire Program Analysis (FPA), which will provide managers with analytical tools to support strategic planning and budgeting for a comprehensive, interagency fire management program. The system will be able to determine cost-effective interagency wildland fire management programs for a range of budget levels. The fuels portion of FPA has an anticipated release date of June 2008.

In the interim while these systems are being developed, FS needs to develop a tool they can consistently use to evaluate the effectiveness of alternative strategies in meeting the goals of its hazardous fuels reduction program. If FS does not have a process for assessing the level of risk that communities face from wildland fire and apply this process on a consistent basis, FS may not be able to identify and prioritize the most effective fuel reduction projects.

FS Needs to Strengthen Its Guidance for Prioritization

After field units have made risk assessments and a determination of the benefits of fuel reduction projects, FS needs to be able to identify which projects are the most important and need to be completed. This process of prioritization needs to be uniform and integrated among Districts, Forests, and Regions across the nation. However, we determined that FS' controls for identifying and prioritizing hazardous fuels projects were not consistent. A December 17, 2004, report prepared by the FS' Executive Integration Team, found that each of the FS' nine regions have a different way of identifying priorities. Without a consistent method of prioritizing projects, the FS cannot compare projects between regions. This affects the ability to identify, on a national basis, those projects that should be completed first.

FS' controls for identifying and prioritizing projects include the 10-Year Comprehensive Strategy and the Implementation Plan. The strategy stresses that a Community Wildfire Protection Plan (CWPP) must be collaboratively developed by local and State government representatives, in consultation with Federal agencies and other interested parties. The plan must identify and prioritize areas for hazardous fuel reduction treatments and

recommend the types and methods of treatment that will protect at-risk communities and resources. Also, the FS Chief annually issues a letter, which directs managers to target funding to projects near WUI at greatest risk of fire, communities that have completed a CWPP or its equivalent, and communities where there is active partnership with volunteer efforts, in-kind services, and/or where partners are contributing funding.

FS officials noted that CWPPs are a tool for prioritizing hazardous fuels reduction efforts. However, these plans are not reviewed by the national office. Furthermore, the Executive Integration Team's report stated that it is unclear how community priorities identified in these plans are to be included in the decisions on which fuel reduction projects to complete.

FS officials stated that LANDFIRE will help them identify which projects are most important. However, LANDFIRE was designed and funded for use at the strategic level (i.e., not below the regional level). Before individual field units could use LANDFIRE for priority setting and decision making, the system would require additional funding. This funding would be necessary in order to pay for the additional system modifications necessary to handle local level input and outputs and additional training for all field level staff to be able use the system.

FS officials also believe that a new web-based system, WorkPlan, will provide a consistent approach to project planning and tracking. WorkPlan will provide a tracking module for expenditures, time charges, and accomplishments specific to any one project, and costs will be reconciled to FS' accounting system. Although FS officials feel this system can be used to help with project identification and prioritization, we did not review WorkPlan as FS officials stated it was completed subsequent to our fieldwork.

FS needs to establish controls to ensure that the process for weighing the risks of catastrophic wildfire against the benefits of fuel reduction projects leads to performing the most effective projects first. These controls should serve as a consistent basis that can be utilized at all levels for prioritizing hazardous fuels reduction projects. With no consistent process for identifying the most effective fuels reduction projects, there is also no consistent basis for management to select and fund one project over another. Furthermore, FS cannot adequately justify and defend increasing or decreasing funding when the need arises.

FS Needs to Improve Procedures for Allocating Hazardous Fuels Reduction Funds

FS' process for allocating hazardous fuels reduction funds does not ensure funding is distributed according to where the highest concentrations of priority projects are located nationwide. FS does not base funding and allocation decisions on any risk assessment or prioritization processes. As a result, FS has no assurance that hazardous fuels reduction funds are allocated to priority projects that result in a significant reduction of risk from wildland fire. There is no control to prevent field units from treating the easiest and least expensive acres in order to achieve target acreage levels instead of treating those acres that will more effectively reduce risk.

FS allocates hazardous fuels reduction funds to the regions based primarily on historical funding levels and established targets (i.e., acres treated). Regions are then responsible for further allocating funds to Forest Supervisors and final project allocation decisions are made at the local level. Funds are not allocated to the regions based upon identified risks from wildfire or planned fuel reduction projects that will be most effective in reducing that risk.

Several FS officials expressed concern with the high demand to reach the targets, which drives the allocations to specific locations, not necessarily the highest risk locations. Managers, therefore, may be inclined to select and treat the easiest and least expensive acres instead of those that truly reduce the risk of catastrophic wildfire and are more costly to treat, such as those in the WUI. While FS is achieving more than 60 percent of the total acres in the WUI, managers are still pressured to ensure they accomplish their targets. Another influence may be a result of a trend that funding increases for the hazardous fuels reduction program have not risen at a comparable rate to that of the increasing targets each year. Other reports have identified problems with the use of acres as a measurement tool.

A review⁴ conducted by an independent organization on FS' FY 2004 large cost wildfires supports our opinion that funds may be allocated to projects to achieve a greater number acres treated instead of those that pose the greatest risk from wildland fire. The report generated by this review stated that forest personnel are eager to increase fuels treatments, but are constrained by limited budgets. The review found that the number of acres treated adjacent to or within WUI was limited. Priority was not given to the area where the risk to the community was greatest (the WUI), but appeared to be given to those acres that can be treated at modest costs.

⁴ Ferraro Inc., Independent Cost-Control Review Panel, FY 2004 Large Cost Wildfires, report. The Secretary of Agriculture chartered the FY 2004 Large Fire Cost Review panel to review high suppression expense wildfires on four national forests in three regions.

Another management review also identified concerns with focusing only on acres treated. Specifically, the report⁵ pointed out that a primary metric of performance involves the number of acres targeted and accomplished for fuels treatment, and with the increasing emphasis on performance-based budgeting, funds could readily flow to the lower cost areas while the higher cost areas are left unfunded and untreated. Costs to treat an acre and the pressure to treat an increasing number of acres took priority over whether the treatment would be most effective in reducing the risk from wildfire. The review determined that the emphasis should be on performance-based outcomes, not on number of acres treated. In summary, it stated that treating low-cost acres as an objective, often provides only short duration benefits on areas that are often the easiest to protect with traditional firefighting resources and fail to address the root cause of devastating, high suppression cost fires.

The table below provides data on the amount of hazardous fuels reduction funds allocated per region and the resulting accomplishments in FY 2004. The table shows that the southern region treated over 57 percent of the total acres treated nationally with just 14 percent of the total funding. However, the region has historically accomplished their targets through prescribed burns as recurring maintenance treatments, which is a less expensive method of treatment. While this method of treatment may in fact reduce the risk of catastrophic wildfire, FS has no assurance that they are allocating funds to the most efficient and cost effective fuel reduction projects nationally.

Table 1: FY 2004 Regional Allocations and Resulting Accomplishments

Region	Acres Treated	% Total Acres Treated	Funding Received	% Total Funding
1 - Northern	86,404	4.81%	\$17,800,000	7.59%
2 - Rocky Mountain	110,063	6.12%	29,000,000	12.37%
3 - Southwestern	193,620	10.77%	39,825,000	16.99%
4 - Intermountain	59,238	3.29%	17,929,000	7.65%
5 - Pacific Southwest	107,882	6.00%	52,306,000	22.32%
6 - Pacific Northwest	157,216	8.74%	30,741,000	13.12%
8 - Southern	1,038,920	57.79%	33,932,000	14.48%
9 - Eastern	44,078	2.45%	11,885,000	5.07%
10 - Alaska	470	0.03%	948,000	0.40%
Totals	1,797,891		\$234,366,000	

FS officials noted that LANDFIRE will also be useful in making funding and allocation decisions. However, with no specific process to ensure funds are

⁵ *May the Forest Be With You*, A Management Review of DOI and Department of Agriculture NFP Acquisition and Assistance Program.

distributed according to where the highest concentrations of priority projects are located nationally, FS has no assurance that it is funding the projects where the negative impacts of wildland fire are greatest, such as communities most at risk in WUI. This may result in FS receiving hazardous fuels funding reductions, as the funds are not being used as intended by the legislation. Therefore, FS may not be able to reduce the total number of acres at risk to severe wildland fire or assure maintenance of areas improved by fuels treatment.

We determined that, until FS develops and implements more specific and consistent controls that affect the selection, prioritization, and funding of projects, FS has no assurance that it is focusing its resources on the areas most at risk for catastrophic wildland fire.

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 Response. In its August 17, 2006, response, FS stated:

The Forest Service concurs with this audit recommendation. The Forest Service 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.

Estimated completion date for Recommendation 1: July 31, 2007

OIG Position. We accept FS' management decision.

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 Response. In its August 17, 2006, response, FS stated:

The Forest Service concurs with this audit recommendation. The Forest Service 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.

Estimated completion date for Recommendation 2: July 31, 2007

OIG Position. We accept FS' management decision.

Recommendation 3

Establish controls to ensure funds are distributed according to where the highest concentrations of priority projects are located nationally.

Agency Response. In its August 17, 2006, response, FS stated:

The Forest Service concurs with this audit recommendation. The Forest Service 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.

Estimated completion date for Recommendation 3: July 31, 2007

OIG Position. We accept FS' management decision.

Finding 2

FS Needs to Improve the Quality of Its Accomplishment Reports

FS' accomplishment reports for the hazardous fuels reduction program are misleading and not representative of the actual achievements as intended by HFI; that is, to what extent the program has reduced the risk of catastrophic wildland fire. Although aware of the deficiencies, FS has not implemented steps to ensure that the information it collects and includes in its accomplishment reports fully communicates the results of its efforts to reduce the fire risk in WUI. FS' metrics for reporting accomplishments, "acres treated," does not communicate how much the risk from wildfire has been reduced. As a result, the usefulness and credibility of the reports are diminished because they do not communicate how much risk from wildfires has been reduced but only how many acres have been treated. The reports' diminish in value as a tool to help FS management achieve the objectives of reducing fire risks in WUI.

To carry out its reporting responsibilities, FS uses NFPORS to track all fuels reduction projects. Regional and field level officials input project data into the system based on their planned fuels reduction treatment and update the information regularly as work is completed. The system data is also used to

prepare monthly accomplishment reports that are posted on the program website.

For each FY, targets are established for the hazardous fuels program. These targets are set by Congress, the Undersecretary for Natural Resources, and the FS Chief, with some input from regional and forest supervisors. FS used the Budget Formulation and Execution System as a basis to allocate funding and project targets up through FY 2005. Targets are continuously adjusted upward to meet the expectations of oversight bodies. For example, the system projected targets of 1.3 million acres in 2004 and 1.5 million acres in 2005. However, for FY 2004, the target was set at 1.6 million acres to be treated with hazardous fuels funding, and for 2005 the target was set at 1.8 million acres. Regional foresters were asked to stretch their hazardous fuels programs to accomplish and report more acreage. The focus has become the number of acres treated and not on the acres that will achieve the most reduction in risk for communities and forest resources.

“Acres Treated” Does Not Convey Reduced Risk

The first goal of the strategic plan is to reduce the risk of catastrophic wildland fire by improving the health of the nation’s forests and grasslands, a goal that reflects the intent of the Healthy Forests legislation. However, FS measures its accomplishments towards this goal almost solely on the number of acres treated by fuels reduction projects, which does not necessarily correlate to risk reduction. In other words, FS is measuring the program’s *output* (acres treated) rather than *outcome* (risk reduction). The focus on meeting targets is overriding the need to accomplish more effective treatments in areas where the risks to resources and property are the greatest. Without an outcome-oriented performance measure, FS cannot show that it is fulfilling the goals of the Healthy Forests legislation and its own strategic goal to reduce the risk of wildland fire.

Treatments to reduce fuels can involve a variety of techniques, including thinning, prescribed burning, and clearing forest debris. These activities may have significantly different levels of impact on the total reduction of risk. An initial thinning treatment may have a different impact on risk reduction than a subsequent intensive fuel removal on the same acre. Also, under the current process, the two treatments on the same acre may be reported twice as “acres” treated. If either treatment fails to actually reduce the risk from wildfire, they are still reported as accomplishments, “acres” treated.

In the Healthy Forest reports, and NFORS, all hazardous fuels treatments are reported in number of acres. The current reporting metrics are based on achieving treatments on the target number of acres, and are reported as such. Although information is reported on the number of acres treated in both the WUI and the non-WUI areas, the numbers of acres treated in these areas does

not fully address the reduction of risk. This measurement is only a measure of the output or treated acres of the program, and not an evaluation of the program's outcome (risk reduction).

In addition, regional foresters are now evaluated in their annual evaluations on whether they meet their targets. Line officers are held accountable for this accomplishment, which in turn may force line officers to meet acreage targets and may hinder implementing more effective treatments.

These targets set by Congress, the Undersecretary for Natural Resources, FS Chief, and others drive the accomplishments reporting at the field and regional levels. The targets are set as firm FY totals and do not count for variables such as weather conditions, severity of fires, and scheduling complexity. Therefore, in the event that weather does not permit hazardous fuels treatments during the year, targets are not adjusted and line officers are still accountable for the established targets.

Both internal and external reviews have raised concerns about the way FS measures performance for the fuels reduction program. A 2004 internal FS report⁶ stated that a focus on meeting targets (i.e., acres, outputs) is overriding the need to accomplish more effective and better-integrated treatments that achieve the desired fuel and restoration outcomes.

The Government Accountability Office (GAO) identified problems with the performance measure in 2002⁷, reporting that Federal land management agencies do not have adequate data for making informed decisions and measuring the agencies' progress in reducing hazardous fuels. In early 2005⁸, GAO reported that FS had adopted a performance measure that identifies the amount of acres moved from high-hazard to low-hazard fuel conditions. Despite the positive progress recently reported by GAO, our work indicated that FS is still using the "acres treated" performance measure to report its accomplishments. The agency's strategic plan has not been updated to include a new performance measure. FS has acknowledged the need to develop a more meaningful performance measure and is evaluating methods to identify the larger benefits of strategically treating selected areas to achieve a wider area of "protected" acres. Officials stated that FS scientists are working to develop a way to measure "area protected" instead of the current measure, acres treated.

⁶ "National Integrated Fuel and Restoration of Fire-Adapted Ecosystems Review," dated December 17, 2004.

⁷ "Leadership and Accountability Needed to Reduce Risks to Communities and Resources," dated January 2002.

⁸ "Wildland Fire Management: Important Progress Has Been Made, but Challenges Remain to Completing a Cohesive Strategy," dated January 2005.

Accomplishment Reports Need Additional Information to Inform Users of the Progress Made in Reducing Risks of Catastrophic Fires

Hazardous fuels accomplishment reports do not provide sufficient information for users to fully evaluate progress in reducing risk of catastrophic fire. Reports do not include information such as the region where the acres were treated; changes in condition class, initial and maintenance treatments, and multiple treatments on the same acres. Although FS already records some of this information in its database, NFPORS, it is not presented in accomplishment reports. By not providing these critical distinctions to stakeholders, the current reports may influence inappropriate funding and resource management decisions, and may indicate that more acres are treated than are actually accomplished. The lack of meaningful and detailed accomplishment reports also deprives FS management of a needed tool in order to effectively manage fuel reduction efforts.

Total acres treated are reported in accomplishment reports on a national level. Acres treated are not further broken down to distinguish between region, State, or other geographic area. FS' reports do not provide details on acres treated in specific regions at greatest risk of wildfires. For example, the majority of catastrophic wildfires occur in the west, but the Southeast States (Region 8) treated over 57 percent of the total hazardous fuels acreage in the United States in FY 2004. By comparison, the Pacific Southwest, where typically the danger of large wildfires is much greater, treated only 6 percent of the total hazardous fuels acres. While this appears to be an inappropriate allocation of resources, there is no way for managers and stakeholders to make determinations based on the limited information contained in the reports. The lack of this detailed information in accomplishment reports may result in ineffective funding and management decisions.

FS' accomplishment reports also do not include data on the change in condition classes (1, 2, and 3), which measures general wildfire risk by describing an area's departure from historic conditions. The risk of fire-caused losses increases for each higher numbered class, with little or no risk at the class 1 level. The data on the change in condition classes should also be included in accomplishment reports to support fuel reduction efforts.

In addition, we noted that accomplishment reports need to include more detailed information so that FS can better measure the outcome intended by the Healthy Forest legislation. For example, reports do not differentiate acres treated between initial and maintenance treatments. They also do not distinguish between multiple treatments on the same acres. However, most hazardous fuels projects take more than 1 year to complete and require a combination of treatments (such as thinning, piling, and burning) on the same acre. By not providing these distinctions, the reports may indicate that more acres are treated than are actually accomplished. The treatment of a single

acre could show in the report as two or three acres treated even though its condition class had not changed.

GAO reported similar problems in their 2003 report⁹ noting that FS' annual performance reports provide misleading information on the overall progress achieved under the fuels reduction program. Therefore, GAO recommended that reporting should distinguish acres treated to reduce wildfire risk, acres requiring multiyear treatments, and maintenance acres separately in performance reports.

FS WO officials agreed with our conclusions that more detailed information should be included in the accomplishment reports.

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 Response. In its August 17, 2006, response, FS stated:

The Forest Service concurs with this audit recommendation. The Forest Service 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.

Estimated completion date for Recommendation 4: July 31, 2007

OIG Position. We accept FS' management decision.

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.

⁹ "Additional Actions Required to Better Identify and Prioritize Lands Needing Fuels Reduction," dated August 2003.

Agency Response. In its August 17, 2006, response, FS stated:

The Forest Service concurs with this audit recommendation. The Forest Service will update its reporting systems and documents to include more detailed information on accomplishments, as noted in the recommendation.

Estimated completion date for Recommendation 5: July 31, 2007

OIG Position. We accept FS' management decision.

Scope and Methodology

This review covered FS' WO management controls for implementing the HFI. We focused our audit work on the hazardous fuels program, as more than half of FS' funding under HFI is allocated for this purpose.

To accomplish the audit objectives, our review consisted of the following audit procedures:

- Reviewed applicable laws and regulations and FS policies and procedures.
- Reviewed FS' financial statements for FYs 2002 to present.
- Reviewed and followed up on related OIG and GAO reports issued in the past 3 years.
- Reviewed a FS internal review and an independent external review of the hazardous fuels program.
- Interviewed the Office of Budget and Program Analysis' Program Analyst for Natural Resources, Research, and Education Programs, and the FS Program Analyst.
- Reviewed HFI budget information for FYs 2004 and 2005, and the proposed budget for 2006.
- Conducted interviews with NFS staff, including the Director Forest Management and Deputy Director Forest Management.
- Interviewed NFP Office staff, including the coordinator, deputy coordinator, and analyst.
- Interviewed the Associate Deputy Chief- State & Private Forestry and officials in the Fire & Aviation Management Division, including: the Acting Deputy Director, Assistant Director for Planning & Budget, Acting Assistant Director for Fire Ecology, National Fuel Program Manager, Hazardous Fuels Program Analyst, Program Specialist/Performance & Accountability, Fuels Specialist, and Applied Fire Ecologist.
- Conducted interviews with business operations officials in the Strategic Planning and Resource Assessment Division, including the Director of Programs & Legislation and the Branch Chief for Strategic Planning.

- Interviewed the Budget and Finance Office's Director of Program & Budget Analysis.
- Reviewed and analyzed data maintained in the NFP Operations and Reporting System for hazardous fuels projects.
- Reviewed Healthy Forests' reports to identify FS' accomplishments in the hazardous fuels program.

We performed fieldwork from February through August 2005 and conducted the audit in accordance with generally accepted government auditing standards.

Exhibit A – Agency Response

Exhibit A – Page 1 of 3



United States
Department of
Agriculture

Forest
Service

Washington
Office

1400 Independence Avenue, SW
Washington, DC 20250

File Code: 1430
Route To:

Date: AUG 17 2006

Subject: Response to Official Draft Office of Inspector General (OIG) Audit Report No. 08601-06-AT, "Implementation of the Healthy Forests Initiative"

To: Robert W. Young
Assistant Inspector General for Audit
Office of the Inspector General

Thank you for the opportunity to review and comment on the official draft OIG Audit Report No. 08601-06-AT, "Implementation of the Healthy Forests Initiative." The Forest Service concurs with the recommendations in the report and believes they will benefit from the overall Healthy Forests Initiative program. See the enclosed regarding the proposed management decisions and actions to implement the recommendations.

If you have any technical questions, please contact Sandy Cantler at 202-205-1438. If you have any other questions, please contact Art Seggerson, Agency OIG Audit Liaison, at 703-605-4968.


JESSE L. KING
Chief Financial Officer

Enclosure

cc: Art Seggerson, Sandra Cantler



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United States Department of Agriculture
Forest Service (FS)

Office of Inspector General Audit Report No. 08601-06-AT
Implementation of the Healthy Forests Initiative

Response to Official Draft Audit Report

OIG Recommendation No. 1: Develop and implement specific national guidance for assessing the risks from wild land fires and determining the benefits of fuels treatment and restoration projects. These processes should be able to be applied on a consistent basis between regions, forests and districts, so the FS may be able to prioritize and fund the most beneficial and cost effective fuels reduction projects.

FS Response to Recommendation No. 1: The Forest Service concurs with this audit recommendation. The Forest Service 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.

Estimated Completion Date for Recommendation 1: July 31, 2007

OIG Recommendation No. 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

FS Response to Recommendation No. 2: The Forest Service concurs with this audit recommendation. The Forest Service 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.

Estimated Completion Date for Recommendation 2: July 31, 2007

OIG Recommendation No. 3: Establish controls to ensure funds are distributed according to where the highest concentrations of priority projects are located nationally.

FS Response to Recommendation No. 3: The Forest Service concurs with this audit recommendation. The Forest Service 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.

Estimated Completion Date for Recommendation 3: July 31, 2007

OIG Recommendation No. 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 fiscal year total

FS Response to Recommendation No. 4: The Forest Service concurs with this audit recommendation. The Forest Service 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.”

Estimated Completion Date for Recommendation 4: July 31, 2007

OIG Recommendation No. 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.

FS Response to Recommendation No. 5: The Forest Service concurs with this audit recommendation. The Forest Service will update its reporting systems and documents to include more detailed information on accomplishments, as noted in the recommendation.

Estimated Completion Date for Recommendation 5: July 31, 2007
