United States Department of Agriculture

From Accelerating Restoration To Creating and Maintaining Resilient Landscapes and Communities Across the Nation

Update on Progress From 2012

Forest Service FS-1069 November 2015

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Executive Summary

In a period of great ecological and socioeconomic change, the U.S. Department of Agriculture, Forest Service recognizes the critical importance of restoration to fulfilling its mission to sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations. Across the country, forests, grasslands, and watersheds are impacted by a confluence of stressors, including catastrophic wildfire and outbreaks of insect and disease, that are exacerbated by a changing climate. At the same time, demand is growing for the multitude of services provided by national forests and grasslands. Restoration of these vital landscapes is critical to maintaining and enhancing the functions needed from productive, resilient forests and grasslands to support thriving communities and economies.

In 2012, the Forest Service shared a number of policies and initiatives to increase the pace of forest restoration and management on the national forests. This report serves as an update to *Increasing the Pace of Restoration and Job Creation on Our National Forests* and shares progress that has been made over the past 3 years. The Forest Service, together with diverse partners across public and private sectors, is making a difference through implementation of the Collaborative Forest Landscape Restoration Program, Watershed Condition Framework, Integrated Resource Restoration budgeting, and the Western Bark Beetle Strategy; finalization of the 2012 forest planning rule; efficiency improvements for National Environmental Policy Act and timber and stewardship contract processing; and support to expand markets for forest products. As a result, the Forest Service has increased the impact and rate of restoration nationally, despite mounting challenges such as record droughts, longer and drier wildfire seasons, a reduction in non-fire personnel to support the agency mission, and a rapidly increasing percentage of the budget being spent on wildland fire management. In the previous report, the Forest Service projection for 2011 was to complete 3.7 million acres of restoration treatments. Ultimately, the agency exceeded its target and accomplished 4.2 million treatment acres.[1] In 2014, the Forest Service further prioritized restoration and accomplished over 4.6 million acres of restoration treatments; an increase of nearly 400,000 acres (9 percent) compared to 2011 accomplishments. In fiscal year (FY) 2015 and beyond, the Forest Service continues to implement policies and approaches that more efficiently and effectively increase its impact on landscapes and communities as a result of restoration treatments. Yet, much work remains to be done.

The Forest Service has made great progress since 2012, with the help provided through legislation. New and extended authorities, such as those provided in the 2014 Farm Bill, have allowed the Forest Service to work more efficiently and extensively with partners. However, there is a limit to the gains that can be realized through efficiencies and partnerships alone. Over the last few decades, wildland fire suppression costs have increased as fire seasons have grown longer and the frequency, size, and severity of wildland fires have increased. Today, the Forest Service spends half of its budget on fire management activities and that has real implications on the ground, including for restoration work that would help prevent catastrophic fires. Wildland fire suppression activities are currently funded entirely within the Forest Service budget, based on a 10-year rolling average that continues to increase, consuming a growing portion of the agency's appropriated budget. This unsustainable problem is made worse because, in many years, fighting fires costs more than was appropriated for that year, requiring mid-season transfers of additional dollars from already depleted accounts to pay for firefighting: a practice referred to as "fire transfer." In some cases, the agency is forced to divert money away from the same forest restoration projects that prevent or lessen the impacts of future wildfire. The agency has hit a tipping point. To solve this problem, the Government must change the way it pays for wildfire suppression. The USDA and the Forest Service stand ready to support the Wildfire Disaster Funding Act. Resolving funding issues will help the Forest Service better restore the health and resilience of the Nation's landscapes and serve the communities that rely on them.

1 Restoration accomplishments are comprised of acres treated to sustain or restore watershed function on National Forest System land and acres of hazardous fuels treated in the wildland-urban interface on National Forest System lands and State and private lands.

(USDA Forest Service)

Introduction

Spurred by Secretary Tom Vilsack's vision, which emphasized collaboration with stakeholders and restoration of the Nation's forests, the United States Department of Agriculture (USDA), Forest Service published *Increasing the Pace of Restoration and Job Creation on Our National Forests* in February 2012. The report laid out the need to increase the pace and scale of restoration on national forests to benefit water resources, wildlife, and local communities, as well as identifying a series of actions to help make restoration outcomes a reality. This document provides a progress update on the commitments identified in 2012, describes new approaches being implemented in addition to the earlier commitments, and describes the important work that remains.

The Need for Restoration

The Forest Service administers 193 million acres of national forests and grasslands; across the country, national forests provide myriad values and benefits to the American people, including clean drinking water, vital wildlife habitat, wood products, and a variety of recreational opportunities. However, carrying out the agency's mission to sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations is becoming increasingly difficult. Large areas of National Forest System (NFS) land are at risk from catastrophic wildfire, insect and disease, changing climate, and other stressors. The potential restoration treatment needs on NFS land are between 65 to 82 million acres. Restoration of these vital landscapes is critical to maintaining and enhancing the functions needed from healthy, productive, and resilient forests.

Progress on 2012 Commitments

In 2012, the Forest Service shared a number of policies and initiatives to increase the pace of forest restoration and management on national forests. In spite of challenges, notably the budgetary impacts of the 2011 Budget Control Act and fire transfers in 2012, 2013, and 2015, the Forest Service has made progress on its earlier commitments. The number of acres treated annually has increased during this time period. In the previous report, the Forest Service projection for 2011 was to complete 3.7 million acres of restoration treatments. The Forest Service was able to exceed this projection with an actual 2011 accomplishment of 4.2 million acres of watershed and forest restoration, wildlife habitat improvement, and hazardous fuels treatments. In 2014, the agency further increased accomplishments by treating more than 4.6 million acres of restoration treatments, an increase of 400,000 acres compared to 2011. Additionally, the Forest Service has increased its timber production from 2.5 billion board feet (bbf) in 2011 to 2.8 bbf in 2014. The Forest Service plans to increase this number still further in 2015 and 2016 with targets of 2.9 and 3.2 bbf, respectively based on funding levels in the President's budget request.

The Forest Service has additionally made significant progress on the key actions identified in the previous report: expanding collaborative landscape partnerships; finalizing and implementing a new forest planning rule; implementing the Watershed Condition Framework; implementing Integrated Resource Restoration budgeting; improving restoration project planning process efficiency under the National Environmental Policy Act; implementing the Forest Service bark beetle strategy; expanding stewardship contracting; improving implementation and efficiency of timber and stewardship contracts; and expanding markets for forest products, including woody biomass utilization and green building materials.

Further detail is provided below. Congress, Forest Service partners, and the public have played an important role in attaining this progress.

1. *Expanding Collaborative Landscape Partnerships*

In its first 5 years of implementation, the Collaborative Forest Landscape Restoration (CFLR) Program has expanded to 23 projects on high-priority landscapes in 15 States, from Florida to California. By strategically focusing restoration efforts and emphasizing collaboration and community engagement, the CFLR projects have brought people together to accomplish work on the ground that otherwise might have been impossible. Collectively, more than 1.45 million acres of forest have been treated to reduce the risk of catastrophic wildfire, and more than 1.33 million acres have been improved for wildlife habitat. **The CFLR projects and other related restoration activities have generated more than 1.256 bbf of timber volume sold, $661 million in local labor income, and created or maintained an average of 4,360 jobs per year.**[1] There is interest from partners across the country in expanding the CFLR program. Given capacity constraints on the existing program appropriation, only 23 projects could be funded out of the 50 proposals submitted in 2010 and 2011. Since 2012, there has been interest in additional projects in areas where there is not an existing CFLR project but where increased collaboration is proposed and needed, such as in the Great Lakes region. The fiscal year (FY) 2016 President's Budget proposed to expand the CFLR program to meet this demand and the opportunity presented by unfunded collaborative projects.

By continuing to support this innovative program, Congress empowers the Forest Service and its partners to advance restoration outcomes while engaging local communities. The Forest Service continues to seek new opportunities to leverage additional partner investments and capitalize on new programs and authorities to maximize efficiencies. The Forest Service welcomes the opportunity to expand the program through additional appropriation of dedicated funding beyond the $40 million per year currently authorized.

1 For more information, see the CFLR 5-Year Report: http://www.fs.fed.us/restoration/documents/cflrp/CFLRP_5-YearReport.pdf.

Grandfather Restoration Project

North Carolina: The Grandfather Collaborative Forest Landscape Restoration Project brings together diverse partners to restore the forest health and resilience of a unique section of the southern Blue Ridge Mountains. The project is reducing fire risk, removing invasive species, improving wildlife habitat, and increasing recreation opportunities. One of the project's many successes is the work across ownerships to remove Japanese knotweed from the Wilson Creek Wild and Scenic River Corridor. This invasive plant species takes over riparian areas, competing with native vegetation and reducing the quality of trout habitat in the waters of Wilson Creek. Successful treatment of Japanese knotweed requires removing the plant from both the National Forest System and privately owned land in the river corridor. The Forest Service, North Carolina Wildlife Resource Commission, and the partner group Friends of Wilson Creek are working on National Forest System lands and with private property owners to remove Japanese knotweed, with plans to eradicate Japanese knotweed from the area by 2017.

(https://grandfatherrestorationproject.wordpress.com)

2. *Finalizing and Implementing a New Forest Planning Rule*

The May 9, 2012, planning rule (2012 planning rule) for NFS land management planning[2] guides a collaborative and science-based approach to planning that aims to maintain and restore NFS lands in an ecologically, socially, and economically sustainable manner, as well as providing for ecosystem services and multiple uses. This new rule is resulting in nimble, less expensive plans. In August 2014, a 21-member Planning Rule Federal Advisory Committee was selected to provide guidance and recommendations on the management of America's national forests. The recommendations are intended to deepen the level of stakeholder collaboration in forest planning. The Forest Service has 124 land management plans, 19 of which are currently being revised under the 2012 planning rule. In August 2015, the Francis Marion National Forest released the first proposed plan[3] developed under the new planning rule. Land management plans provide important focus and context for restoration activities on national forests and watersheds. Over the coming years, actions under this rule will expand the number of acres and watersheds restored on national forests.

2 For more information, visit http://www.fs.usda.gov/planningrule.

3 The proposed plan is available at http://www.fs.usda.gov/main/scnfs/landmanagement/planning.

Proposed Plan Issued for the Francis Marion National Forest

South Carolina: The Francis Marion National Forest supplies clean water, as well as economic benefits through timber production, eco-tourism, and recreation, to its surrounding communities. In addition, the forest provides wildlife habitat for many species, including the red-cockaded woodpecker. As part of plan revision, the Francis Marion National Forest is working with many entities interested in longleaf pine restoration, including Atlantic Coast Longleaf Implementation Team, Sewee Longleaf Conservation Cooperative, South Carolina Forestry Commission, The Nature Conservancy, and the U.S. Fish and Wildlife Service.

Red-cockaded woodpecker in the Francis Marion National Forest. (USDA Forest Service)

In August 2015, the Francis Marion National Forest issued a proposed plan, representing the first plan developed under the 2012 planning rule. The proposed plan provides an opportunity to restore and connect longleaf pine forests across the landscape; one of the plan's objectives is to maintain or restore 91,000 acres of longleaf pine ecosystems in woodlands and savannas. The restoration emphasis in the plan complements fish and wildlife habitat needs. For instance, ensuring a sustained flow of early successional habitats will support a variety of species, including the northern bobwhite quail. Additionally, the proposed plan emphasizes conversion of loblolly pine to longleaf pine in the first decade to meet timber demands from local mills while also supporting forest restoration objectives.

3. *Implementing the Watershed Condition Framework*

The Watershed Condition Framework (WCF) provides a consistent approach for classifying the condition of watersheds on the Nation's forests and grasslands. The Forest Service established three watershed condition classes (functioning properly, functioning at risk, and impaired function) to assess, classify, prioritize, and monitor progress toward maintaining or improving watershed condition. The Forest Service has identified more than 300 priority watersheds. From FY 2011 to FY 2014, 34 watersheds were restored to a fully functioning condition. Plans are for the Forest Service to restore an additional 39 watersheds in FYs 2015 and 2016. Additionally, the Forest Service has collaboratively developed 260 Watershed Restoration Action Plans and implementation schedules with partners for appropriate treatments. The WCF is an important tool to help prioritize treatments with partners to restore the condition of priority watersheds nationwide.

Sitkoh River Restoration Project in Alaska

Alaska: Epitomizing the broad interest in and support for restoration actions across both the Tongass and Chugach National Forests in the Alaska Region, the Sitkoh River restoration project on the Sitka District of the Tongass National Forest was a collaborative effort with the Alaska Department of Fish and Game, The Nature Conservancy, Sitka Conservation Society, and Trout Unlimited. Stream restoration on the national forests in Alaska is connected to the life-blood and culture of all the people that live in and depend on the rich fisheries resources of the State. Wild salmon caught in waters adjacent to the national forests in Alaska for subsistence, sport, and commercial uses have an economic value of $2 billion. The Sitkoh River is a Tongass National Forest Watershed Condition Framework (WCF) priority watershed. The restoration project improved 2 miles of main-stem stream habitat in an area of historic harvest and road construction, restored 780 acres of riparian habitat, and replaced 14 fish passage barriers, creating additional salmon habitat in newly opening stream segments. These treatments allowed the watershed to be maintained as functioning properly as defined by the WCF. This fully integrated project fixed existing problems and expanded habitat for wild salmon while improving vegetation to ensure that the work would yield sustainable improvements over the long run.

(USDA Forest Service)

4. *Implementing Integrated Resource Restoration Budgeting*

Integrated Resource Restoration (IRR)[4] consolidates several existing programs into a single budget line item to support landscape scale restoration. FY 2015 marks the fourth year of implementing the IRR pilot authority in the Forest Service's Northern, Southwestern, and Intermountain Regions. To better understand its progress and challenges implementing IRR, the Forest Service sought a third-party evaluation of IRR and its effects. A team from Colorado State University and the University of Oregon is conducting a three-phase analysis of IRR, which will be completed in late 2015.

The results from evaluation of Phases I and II indicate that IRR tends to benefit larger scope projects that are integrated and meet multiple objectives across the landscape. Most Forest Service line officers value IRR because it enables them to pool resources and accomplish priority work at a larger scale. The majority of Forest Service line officers also report that IRR is increasing budget flexibility, complementing other authorities, and improving prioritization and integration in ecosystem restoration work. The IRR pilot authority to date has shown positive results, and nationwide authority would be the best way to capitalize on the lessons learned to date.

4 For more information, visit http://www.fs.fed.us/restoration/IRR/.

Jackknife Watershed Restoration

Idaho: The use of Integrated Resource Restoration budgeting allowed the Jackknife Watershed Restoration project to integrate multiple resource objectives and work across Forest Service resource programs to accomplish landscape outcomes at meaningful scales. Following guidance from the National Watershed Condition Framework, the Caribou-Targhee National Forest selected the Jackknife as a priority watershed for restoration. In 2008, restoration projects were initiated on nearby private and Forest Service lands, making the Jackknife a prime candidate for improving watershed condition. The national forest and cross-boundary partners representing a variety of interests are collaborating in a multi-year effort to restore the Jackknife watershed. The work focuses on decommissioning and relocating roads and trails located on unstable slopes near stream channels, replacing undersized road and trail stream crossings, restoring eroding and disconnected stream and riparian systems, and upgrading nonfunctioning water irrigation diversions. These collaborative actions were designed to improve water quality and habitat for two sensitive fish species (Yellowstone cutthroat trout and northern leathersides), improve wildlife habitat, and increase stream stability, while providing for public access and recreation opportunities. The last essential project on National Forest System lands was completed in 2014, and the watershed within National Forest System boundaries has improved sufficiently to meet the criteria from a "functioning at risk" to a "functioning properly" condition rating.

Upper Mesa Falls in the Caribou-Targhee National Forest. (USDA Forest Service)

5. *Improving Restoration Project Planning Process Efficiency Under the National Environmental Policy Act*

Historically, the Forest Service has expended significant resources on National Environmental Policy Act (NEPA) compliance. Great strides have been made in gaining efficiency in NEPA processes while maintaining a high standard of protecting and enhancing natural resources. The agency has a number of ongoing efforts emphasizing collaboration, learning, and technology to promote a more efficient NEPA process, especially at the landscape scale. A NEPA Line Officer Team was recently formed to promote a community of practice in enhancing the decisionmaker's role in the NEPA process. Additionally, improvements in technology use during the NEPA process are being made through the electronic Management of NEPA (eMNEPA) program. eMNEPA has saved the agency an estimated $17 million in administrative time. Three learning teams continue to be engaged in facilitating the use of adaptive management, focused environmental assessments, and NEPA documents that better reflect collaboration. By focusing on larger landscapes and adaptive components in NEPA analyses, the Forest Service is able to provide NEPA decisions in which additional acres may be treated over a larger landscape and a longer period of time.

While the Forest Service has seen a 400,000 increase in acres treated since 2011, it has reduced the number of NEPA analyses and decisions needed to achieve that increase by approximately 26 percent. For NEPA decisions where the project purpose is forest products, the number of analyses and decisions has been reduced by roughly 50 percent over the same time period, resulting in significant time savings. The Forest Service is also beginning to see a decrease in litigation as a result of collaborative efforts, further increasing planning efficiencies. For example, the last litigation brought against projects on the Malheur National Forest was in 2007. The forest formalized both of its collaborative groups in 2006 and 2008.

The Forest Service has closely collaborated with the White House Council on Environmental Quality (CEQ). The agency has been recognized for various NEPA-related projects and has played a leading role in initiatives with other Federal agencies. Recently, CEQ selected the Forest Service to lead an effort as part of CEQ's NEPA Modernization Initiative, in coordination with the U.S. Department of the Interior, to explore and highlight best management practices for landscape-scale analyses. The goal of this initiative is to modernize NEPA to be a more dynamic tool and expedite decisionmaking.

(USDA Forest Service)

6. *Implementing the Forest Service Bark Beetle Strategy*

Between 2000 and 2010, the Western United States experienced the largest bark beetle outbreak in recorded history. In response, the Forest Service developed the 2011 Western Bark Beetle Strategy,[5] identifying how the Forest Service will respond through FY 2016. The science-based strategy presents a path forward for effectively restoring western forests over time to provide healthy watersheds, stimulate local economies, and be resilient to a changing climate. During the first 4 years of implementation, the Forest Service treated nearly 1.2 million acres, including removing hazard trees from 4,044 miles of roads and trails. The treatments resulted in 1 bbf of timber sold, 470,160 green tons of biomass produced, and human safety improvements. In the last 2 years of the strategy, the Forest Service is projected to treat another 586,000 acres.

5 For more information, visit http://www.fs.fed.us/restoration/Bark_Beetle/.

Mountain Pine Beetle Response Project

South Dakota: In response to a mountain pine beetle (MPB) infestation, the Black Hills National Forest developed the MPB Response Project. To allow quicker assessments of outbreak situations and timelier responses, the project applies a landscape scale approach that emphasizes adaptive management. With this approach, the Black Hills National Forest was able to conduct an analysis and issue a National Environmental Policay Act (NEPA) decision affecting up to ten times the area covered by traditional analysis methods for the Black Hills National Forest. Signed in 2012, the decision authorizes treatments on approximately 248,000 acres of ponderosa pine. The decision also allows the Black Hills National Forest to align and support efforts on adjacent lands. For example, in 2014, the Black Hills National Forest was able to capitalize on the State of South Dakota's actions to thin and remove MPB-infested trees on adjoining State lands by quickly preparing a sale in a matter of weeks, under the MPB Response Project decision. The MPB Response Project decision provided the flexibility to implement this timber sale in an expedited and effective manner without additional NEPA decisions. This timber sale facilitated removal of green susceptible trees prior to the 2014 bark beetle season and increased overall treatment effectiveness on State and Federal land. Since 2013, project implementation has included almost 9,000 acres of commercial timber harvest and will encompass approximately 55,000 acres of commercial treatment over the next 4 years.

Before and after images of a mountain pine beetle infestation. (USDA Forest Service)

7. *Expanding Stewardship Contracting*

Congress permanently authorized stewardship contracting and agreements with passage of the Agricultural Act of 2014 (the Farm Bill). Stewardship contracting is an important tool, allowing the Forest Service to develop forest restoration projects that provide timber while using proceeds for related activities, such as stream restoration and road improvement. With the permanent authorization, Congress also made contractor fire-liability requirements consistent, reducing uncertainty and risk for contractors and partners.

The Forest Service supports the continued and expanded use of this tool in the field. In 2014, the Forest Service published updated policy direction and provides stewardship contracting and agreements training. Thus far, the agency has reached more than 300 internal and external participants in a series of national and regional workshops. Use of stewardship contracting and agreements is also expanding as a direct result of increasing integrated resource restoration activities and collaboration, including the large-scale CFLR projects. From 2011 through 2014, the Forest Service administered more than 790 stewardship contracts or agreements treating over 583,000 acres. The authority to award a contract or agreement for up to 10 years provides flexibility for the Forest Service and contractors to implement and monitor the work over time.

Northeast Washington Mill Creek A to Z Stewardship Contract

(USDA Forest Service)

Washington: As part of the Forest Service's ongoing efforts to increase the scale and pace of restoring forest health and sustainability, the Colville National Forest is developing an entirely new way of accomplishing restoration activities. Through a 10-year stewardship contract, a contractor will complete all necessary National Environmental Policy Act (NEPA) requirements and carry out all resulting restoration work activities, as directed by the Forest Service. The contractor will incur all NEPA-related expenses, but will recoup its investment by deriving value from the forest products that need to be removed to meet land management goals and objectives. This contract goes beyond the scope of a typical stewardship contract, because it requires the contractor to complete work that is not traditionally included, such as fulfilling NEPA and collaboration needs and conducting unit layout, cruising, marking, and volume determination. By leveraging additional resources, the contract will allow more on-the-ground restoration work to be accomplished and contribute to accomplishment of the forest's management goals. Supported by the Joint Chiefs' Landscape Restoration Partnership initiative, the Forest Service is additionally collaborating with U.S. Department of Agriculture, Natural Resources Conservation Service; Washington Department of Natural Resources; and other partners to prioritize fuel reduction and restoration projects on adjacent private and State land next to the Mill Creek A to Z planning area.

8. *Improving Implementation and Efficiency of Timber and Stewardship Contracts*

The Forest Service has taken steps to improve the efficiency of timber sales and stewardship contracts. As a result of the 2013 Task Force Report on Sale Prep and Cruising Cost,[6] the Forest Service has taken actions, including the following, to more efficiently implement timber sale preparations:

- Implemented training for line officers in 2013;
- Mitigated the cost and difficulty of implementing planning decisions through better use of landscape analyses, categorical exclusions, and input from the line officers focus group;
- Issued new directives in May 2015 to increase the use of designation by description and prescription, allowing trees to be designated for removal without requiring individual tree marking;
- Implemented cross training for contract administrators in 2014; and
- Developed a comprehensive training course for timber sale preparation personnel, with first classes to be taught in spring of 2016.

At times, conservative silvicultural prescriptions leave more materials on the landscape than is desired to accomplish needed restoration. By working collaboratively with stakeholders, managers are better able to carry out appropriate forest restoration. With improved silvicultural prescriptions and bundling restoration activities together, forests are better able to meet desired conditions with fewer entries into the same treatment areas, resulting in both administrative cost and labor savings.

6 The report is available at http://fsweb.wo.fs.fed.us/fm/saleprep/documents/Sale_Prep_Report_Final_2013.pdf.

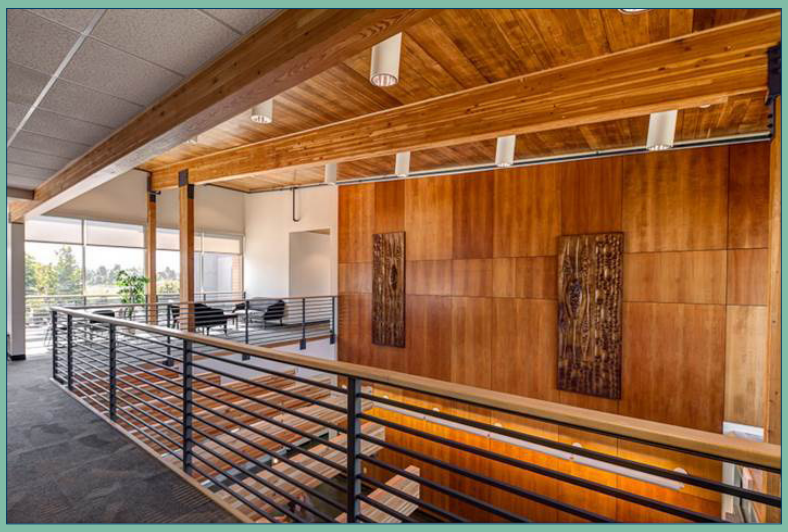
(USDA Forest Service)

9. *Expanding Markets for Forest Products, Including Woody Biomass Utilization and Green Building Materials*

The Forest Service is making significant strides in supporting greater use of a wide range of forest products to assist in expanding existing markets and developing new ones, particularly for green building, energy, and innovative product applications. The agency works with industry, universities, and other Federal partners to develop technology for producing high-value wood products from the small-diameter, low-value material that is a typical by-product of restoration efforts. This includes cross laminated timber in green building and innovative Forest Service research into wood-based nanotechnologies. Additionally, the Forest Service supports the wood energy sector with feasibility and engineering studies. As the lead partner in USDA's Wood to Energy Initiative, the Forest Service has helped facilitate investment in over 230 wood to energy projects with a combined investment of nearly $1 billion in grants, loans and loan guarantees since 2009. In 2015, Forest Service awarded over $9 million to expand and accelerate wood energy and other wood product markets through the Wood Innovations grant program. The Federal funds will leverage $22 million in investments from partners, resulting in a total investment of $31 million in 23 States. Also in 2015, the Forest Service provided support for the U.S. Tall Wood Building Prize Competition, which awarded a combined $3 million in funding to support the development of tall wood demonstration projects in New York City, NY, and Portland, OR, using innovative, mass timber technologies. By creating viable markets for the by-products of restoration treatments, the cost of forest restoration treatments can be lowered and rural and urban jobs are supported along each stage of the supply chain.

WoodWorks Wood Product Council

Nationwide: The U.S. Department of Agriculture and the Forest Service have brought considerable focus to promoting opportunities for wood as a sustainable, renewable, versatile building material that also offers extraordinary opportunities for carbon sequestration. The Forest Service is currently underwriting U.S. Building Code revision work to help align building codes with the opportunities presented by current wood technologies. The Forest Service is additionally funding work that will potentially expand the kinds of wood that can be included in some of the most advanced wood building technologies, such as Cross Laminated Timber. In 2014, the Forest Service became a primary funder of WoodWorks, a wood products council aimed at creating awareness of wood's possibilities and providing credible opportunities for architects and designers to propose wood solutions as building material. Since the Forest Service began supporting WoodWorks, there have been 596 construction projects influenced by the efforts of WoodWorks. This has resulted in the use of $395 million of wood that has sequestered the same amount of carbon as taking 290,434 cars off the road for a year.



(USDA Forest Service)

Increasing the Forest Service's Impact on Landscapes and Communities

The Nation's forests and grasslands are facing increasingly complex and widespread challenges and demands that transcend jurisdictional boundaries. The Forest Service has made significant progress on the nine actions listed in the 2012 report, though much work remains to meet the demands and challenges associated with creating, maintaining, and enhancing resilient landscapes and communities across the Nation.

Working with partners and stakeholders, the Forest Service continues to broaden the pace, scale, and impact of its activities, as well as increase the benefits to communities and enhance natural and cultural resources. In addition to the nine commitments described previously, the Forest Service has developed and implemented other important restoration policies, initiatives, programs, and activities. The following information provides a sampling of innovative approaches to restoration, along with examples of how the Forest Service is implementing them.

Integrating Efforts and Increasing the Pace of Restoration

The Forest Service is integrating efforts with its restoration partners; identifying and implementing process improvements that help with increasing the pace and scale of restoration; and importantly engaging the public in developing well-planned projects. Overall, the Forest Service has successfully increased its restoration efforts. Working in a more integrated fashion has likewise boosted restoration efforts. For example, in FY 2014, the Forest Service maintained or restored watershed conditions on 2.9 million acres, lessened wildfire threats to communities by reducing hazardous fuels on 1.7 million acres in the wildland-urban interface, and provided 2.8 bbf of timber volume sold—a 200-million board feet increase from FY 2013.

Implementation Highlight: Joint Chiefs' Landscape Restoration Partnership Program

(USDA Forest Service)

In 2014, the Forest Service and Natural Resources Conservation Service (NRCS) initiated a new partnership to address landscape-scale objectives for reducing wildfire threats, protecting water quality and supply, and improving habitat quality for at-risk species. The Landscape Restoration Partnership enables the two agencies to design and implement treatments where private and public lands meet and where restoration objectives cross ownership boundaries. By leveraging technical and financial resources and coordinating activities on adjacent public and private lands, the Forest Service and NRCS are more efficient and effective in accomplishing conservation work in priority watersheds. In some places, the Forest Service has expanded its capacity to implement NEPA-ready projects through new partnerships beyond NRCS, such as with Tribes or youth groups like the Student Conservation Association. Activities such as thinning, prescribed burning, invasive species eradication, and riparian road decommissioning on and off NFS lands have resulted in improved resiliency and land health on thousands of acres across the county. Currently, 28 cross-boundary projects are partnering to accomplish restoration objectives, and new projects will be selected in January 2016.

West Virginia Venture Partnership

West Virginia: The Forest Service and the Natural Resources Conservation Service (NRCS) have been working jointly on collecting scientific data and developing assessment tools for decades in West Virginia. Traditionally, NRCS has implemented programs that are focused at the farm scale, working one-on-one with landowners to promote conservation and implement Farm Bill initiatives. The Forest Service has worked within individual watersheds to implement conservation practices on public land in the Monongahela National Forest. By working together on the West Virginia Venture Partnership, NRCS and the Forest Service are identifying and implementing projects in high-priority restoration landscapes that have resulted in measurable improvements in local water quality and wildlife habitat across a much broader landscape. For example, in 2014, the project accomplished 1,500 acres of red spruce restoration, planted more than 20,000 trees, installed 3,300 feet of use exclusion fence, decommissioned 12.7 miles of road, performed inventories on 200 miles of road and 55 miles of stream, completed 600 acres of prescribed burning, and finalized 7 conservation plans and 86 contracts with local land owners for conservation on private land through the NRCS Environmental Quality Incentives Program. This project was jointly funded in 2014 and 2015 through the Forest Service/NRCS Joint Chiefs' Landscape Restoration Partnership program, investing over $3.5 million of Forest Service funding and $2.8 million of NRCS funding for cross-boundary restoration.

Implementation Highlight: Upgrading Road-Stream Crossings

(USDA Forest Service)

Aquatic organism passages at road-stream crossings increase habitat for important fish and other aquatic organisms. Road-stream crossings, particularly culverts and fords, are vulnerable to failure, damage, and loss of access and can modify or obstruct the upstream movement of fish and other aquatic- and riparian-dependent organisms. Recognized as a national leader in technical stream simulation approaches, the Forest Service has been providing training sessions on the approaches for more than a decade. Requests to attend these sessions by agency partners continue to increase. **In 2015, the Forest Service will achieve the impressive 1,000th road-stream crossing upgrade since Congress enacted the Legacy Roads and Trails Program in 2008.** Reconnecting streams and rivers beneath the road network—both on and adjacent to NFS lands—constitutes a major component of the agency's watershed restoration efforts. More than $48 million in aquatic organism passages projects are listed in current Watershed Action Plan Essential Projects. Restoring stream connectivity so fish can move freely to find cold water and high-quality habitat is a fundamental strategy for helping salmon, trout, and many other fish species thrive. Restoring aquatic organism passage also helps meet agency responsibilities for tribal treaty fishing rights and the Endangered Species and Clean Water Acts.

Focusing Investments in Collaboration With Partners and the Public

The health of the Nation's forests and the communities they serve is a shared priority. The Forest Service is investing in collaborative approaches to forest restoration across the country as a way to prioritize investments, work across larger landscapes, build public support for forest restoration and management, and reduce/avoid litigation. Collaborative efforts are being implemented at all scales and serve to identify shared goals and landscape objectives, as well as prioritize areas where projects that address forest restoration, supply wood to local mills, conserve watersheds, and provide a range of other benefits will have the greatest impact.

Implementation Highlight: The National Cohesive Wildland Fire Management Strategy

Developed with other Federal, State, local, and tribal governments, nongovernmental organizations, and public stakeholders, the National Cohesive Wildland Fire Management Strategy (Cohesive Strategy) and National Action Plan provide the framework to meaningfully reduce risks posed by wildfire. The Forest Service is implementing the principles and commitments within the Cohesive Strategy in a variety of ways. By identifying and assessing risks both in the short and long term, the Forest Service is able to make investments in the near term, where they will have lasting benefits to landscapes and communities. By identifying shared goals with stakeholders, the Forest Service is working collaboratively with partners across jurisdictional boundaries to achieve greater collective investment and impact. Importantly, the Forest Service continues to work toward strategic alignment of programs, policies, and actions both within the agency and with its stakeholders, such as through the efforts of the Wildland Fire Leadership Council. Ten Cohesive Strategy pilot projects have been implemented, ranging in investment from $100,000 to more than $2 million. These projects not only reduce risk to communities and important resources, but also foster the Cohesive Strategy mindset that all stakeholders share responsibilities for managing the Nation's lands; protecting the Nation's natural, tribal, and cultural resources; and making communities safe and resilient for future generations. Examples of partnerships the Forest Service is supporting include the Blue Mountains Collaborative in Oregon, Mid-Klamath Partnership in California, and the Utah Statewide Catastrophic Wildfire Reduction Strategy.

Northern Blue Mountain Cohesive Wildfire Strategy Partnership

Oregon: Partners in the Blue Mountains of northeast Oregon and southeast Washington have turned the threat of wildfire into a chance for new collaboration. In 2013, the Northern Blue Mountain Cohesive Wildfire Strategy Partnership was funded as a pilot to bring strategic alignment to the efforts of stakeholders across nearly 3.5 million acres of Forest Service lands covering two national forests; more than 2 million acres of private land protected by the Oregon Department of Forestry and the Washington Department of Natural Resources; and approximately 2 million acres of land managed or protected by a variety of entities, including the Bureau of Land Management, Bureau of Indian Affairs, and Rural Fire Protection Districts. By identifying goals and priorities for forest restoration, fuels reduction, and other work, implementation is focused on landscapes rather than ownership lines. The collaboration also resulted in a 70,000-acre planning area for restoration activities across multiple land ownerships and technical assistance provided to more than 50 private landowners, who will be treating more than 6,000 acres when the project is completed. With expanded support from Forest Service and Natural Resources Conservation Service Joint Chiefs' Landscape Restoration Partnership initiative and the Forest Service Landscape Scale Restoration Program, the Forest Service continues to work with the Oregon Department of Forestry and representatives of local governments, State and Federal agencies, and private landowners to collectively implement landscape-scale restoration as part of this partnership.

Before (above) and after. By removing hazardous fuels buildup, fuel treatments help restore forests to be more resilient to wildfire.
(USDA Forest Service)

Leveraging Resources Across Landscapes

The Forest Service leverages technical and financial resources with a diversity of partners across landscapes. Coordinating efforts to restore lands across large landscapes, regardless of land ownership, often requires the agency to work across traditional boundaries. Together, Forest Service investments in coordinated, cross-boundary planning ensure that actions are more efficient and effective at creating and maintaining healthy, resilient ecosystems.

Implementation Highlight: Good Neighbor Authority

Congress expanded the Good Neighbor Authority, which was previously authorized only in Colorado and Utah, to apply nationwide. The Good Neighbor Authority allows the Forest Service to enter into cooperative agreements or contracts with States and Puerto Rico, which enables these entities to perform forest, rangeland, and watershed restoration services on Federal lands. In this way, the Good Neighbor Authority fosters a collaborative approach to better leverage resources and address land management challenges across boundaries. After gaining approval for the new agreement templates to implement Good Neighbor Authority, the first agreements with States were signed within weeks. Currently agreements are in place with Wisconsin and Utah, and more are expected. As the authority is implemented, the Forest Service and Congress continue to study and explore policy and legislative approaches to ensure the authority empowers Federal/State partnerships and provides an effective tool for achieving cross-boundary landscape restoration.

Implementing Good Neighbor Authority

Wisconsin: In August 2015, the Chequamegon-Nicolet National Forest and Wisconsin Department of Natural Resources (WDNR) signed an agreement for implementation of Good Neighbor Authority in Wisconsin. Per the agreement, the WDNR will supplement the work being done by the Forest Service on the Chequamegon-Nicolet. The WDNR will prepare, award, and administer national forest timber sales where the forest has already completed all necessary inventory and planning work. These timber sales will add approximately 25 million board feet to the forest's regular sale volume of 85 million board feet, which has been planned for FY 2016. In subsequent years, agreements will continue to support higher levels of timber sales and increased levels of watershed restoration activities. The use of the Good Neighbor Authority will provide more wood and jobs to Wisconsin's important forest products industry, while creating and maintaining forest conditions adaptive and resilient to climate change and other stressors.

(USDA Forest Service)

Broadening Restoration to Landscape-Scales and Working Across Land Ownerships

The Forest Service continues to build collaborative partnerships and increase capacity for on-the-ground project implementation and monitoring in support of local communities and their economies. Many Forest Service initiatives have become a catalyst for turning local discussions about restoration among diverse interests into on-the-ground implementation by various partners. Dozens of collaborative planning and implementation efforts across the country are enabling the Forest Service and its partners to get more work done. These collaborative partnerships are locally led efforts from local communities, environmental groups, forest industry, and others.

Implementation Highlight: Landscape Scale Restoration Program

As part of Forest Service State and Private Forestry (S&PF), the Landscape Scale Restoration (LSR) program consolidates several existing programs into a single budget line item to help States and communities work collaboratively across boundaries to achieve restoration outcomes. The Forest Service has been developing the LSR approach for several years and in the FY 2015 budget, Congress provided the new authority to utilize $14 million for the LSR program. The LSR program builds on State Forest Action Plans, enabling State forestry agencies and partners to target forest landscapes recognized as high priorities for restoration treatments. It also allows local partners to integrate the functions of several current S&PF programs, including Urban and Community Forestry, Forest Health Management, Forest Stewardship, and State Fire Assistance. Using the LSR approach, S&PF competitively allocated $12.5 million for 49 projects in 39 States and Territories in FY 2014. These allocations enabled the Forest Service to leverage over $13.2 million in partner dollars and in-kind contributions. This ongoing investment in cross-boundary, landscape-scale projects on State and private lands is spurring innovation, bringing partners to the table, supporting resilience to a changing climate, and allowing the agency to leverage partner contributions.

(USDA Forest Service)

Longleaf Pine Restoration

Longleaf pine forests once encompassed more than 90 million acres of the North American landscape from Virginia to Texas. However, these forests have diminished to less than 3 percent of their original range. In 2007, a regional working group of diverse organizations was formed to develop America's Longleaf Initiative and a plan to restore this ecosystem. The Range-wide Conservation Plan for Longleaf Pine was developed in 2009 with a goal of restoring 8 million acres of longleaf by 2024. Today, we are at 4.7 million acres. Range-wide, about 150,000 acres of longleaf pine reestablishment are estimated to occur annually, with 153,000 acres reestablished in 2014. Contributing to the restoration goal in the conservation plan, the Collaborative Forest Landscape Restoration (CFLR) projects on the Osceola National Forest in Florida and National Forests in Mississippi seek to restore longleaf pine forest ecosystems. These CFLR projects re-establish native longleaf pine forests by planting native seedlings, increasing prescribed fire, and reducing fuel loads via harvesting of woody biomass. Through the Landscape Scale Restoration Program (LSR), the Forest Service is also working with State governments and private landowners to fund and implement restoration projects in nine States in the longleaf pine range. Since 2008, the Forest Service has funded 17 projects, and, in FY 2015 alone, the Forest Service awarded more than $650,000 through LSR for longleaf restoration projects.

Providing Benefits Beyond National Forest and Grassland Boundaries

Forests provide a broad range of values and benefits. Covering a third of the country's landmass, they store and filter more than half of the Nation's water supply and absorb approximately 12 percent of the country's carbon emissions. The Forest Service recognizes the value of ecosystem services provided by the Nation's forests and grasslands—including clean drinking water. The Forest Service, along with public and private stakeholders, is investing in watershed restoration across the Nation to avoid catastrophic losses.

Implementation Highlight: Economic Justification for Watershed Investment Partnerships

Catalyzed by the devastation resulting from the 2013 Sierra Nevada Rim Fire, the Forest Service and The Nature Conservancy co-sponsored an economic analysis of proactive fuel treatment and restoration in the Mokelumne watershed.[7] The study found the benefits of management actions to exceed the cost of treatment by a ratio of two to one. These benefits stem from saved structures and timber; avoided fire cleanup, road repairs, and sediment treatment for utilities; and sequestered carbon. Bolstered by the results of this analysis and the devastating impacts of past wildfires and other stressors, public and private-sector partners in Denver, CO; Flagstaff, AZ; Upper Delaware River Region; Santa Fe, NM; Eugene, OR; the Sierra Nevada Range in California; and others have adopted investment strategies designed to support restoration of headwaters to increase resiliency and protect source water. Implicit in these partnerships is public consensus around the need for collective action and financial support in order to manage ecosystem threats before wildfires become a reality.

7 For more information, visit http://www.sierranevadaconservancy.ca.gov/mokelumne.

Investments in Fuels Reduction Assist Firefighters on the San Juan Fire

Arizona: In June 2014, hazardous fuels treatments showed their value during the San Juan Fire on the Apache Sitgreaves National Forest. Treated areas are meant to slow a fire's advance and restore a forest's natural ability to self-regulate. This was evident during the San Juan Fire. "Fire crews and incident management teams reported that when the fire burned into areas that had been thinned, it burned with low severity and on the ground, not in treetops. The dry, frequent-fire forests of the West evolved with this type of fire; slow-moving, low-severity surface fire that would remove young trees and revitalize understory grasses and forbs," according to Dr. Wally Covington, Director of the Ecological Restoration Institute at Northern Arizona University. The treatments provided a safe place for firefighters to work, helped keep fire out of nearby communities, and reduced negative impacts of fire to natural resources including aquatic habitat, soils, and timber. The combination of thinning with follow-up prescribed burning was most effective at reducing fire behavior and providing for favorable ecological outcomes. In FY 2015, the Forest Service implemented additional strategically placed treatments in high-priority areas as a result of an increase in Hazardous Fuels funding, including more than $4.1 million for additional treatments in Arizona.

(USDA Forest Service)

Creating Efficiencies and Sustainable Partnerships and Practices

The Forest Service will continue to work with States, local government, tribes, and many other partners to improve its forest management program through increased collaboration, new efficiencies, and implementation of sustainable practices.

Implementation Highlight: Expediting NEPA Procedures for Insect and Disease Designation Areas

The 2014 Farm Bill contains a wide range of forestry provisions that are aiding the Forest Service in increasing the pace and scale of restoration, as well as gaining efficiencies at implementing activities. For example, the 2014 Farm Bill amended the Healthy Forests Restoration Act of 2003 and gave Governors experiencing declining forest health the opportunity to request the Secretary of Agriculture to designate areas for treatment. In response to requests from Governors, the Chief of the Forest Service has designated approximately 46.7 million acres of NFS lands in 36 States. Efforts to mitigate risks and impacts are being implemented on the ground. To improve efficiencies in implementation, the Farm Bill authorizes use of expedited NEPA procedures within the designation areas, as outlined in the Healthy Forests Restoration Act. It also allows for application of the newly legislated Categorical Exclusion (CE). As of August 2015, 19 projects have been proposed. Of these projects, 16 are utilizing the new CE authorities, and 3 are using the expedited Environmental Assessments (EA) authority. The unique EA authority allows more efficient analysis by considering two alternatives: one action and one no-action alternative. Proposed treatment acres range from 131 to 3,000 acres.

Implementation Highlight: Watershed Best Management Practices

The National Best Management Practices (BMP) program[8] was established to improve the management of water quality to be consistent with the Federal Clean Water Act and State water quality programs. A national technical guide was drafted in 2012, in coordination with a monitoring technical guide, revised directives, and a national database to collect information on BMP monitoring at different geographic scales. "Train the Trainer" sessions were held in each of the nine Forest Service regions to teach water resource specialists how to effectively monitor and update the database. Forest Service efforts to increase the effectiveness of monitoring efforts helps ensure that data collected is more readily usable in analysis and trends assessment to inform and adapt restoration activities.

8 For more information, visit http://www.fs.fed.us/biology/watershed/BMP.html.

Before (above) and after images of stream restoration. (USDA Forest Service)

Preparing for Ecological, Social, and Economic Change

Forests provide a multitude of services, from clean air and water to food and fiber to places for outdoor recreation and spiritual reflection. Even as demand for these services grows, forests are being lost and degraded as a result of climate change impacts, fires, invasive pests, diseases, and fragmentation. The Forest Service is working to better understand and anticipate changing conditions in, and demands on, forest resources to enhance the effectiveness of management policies and actions.

Implementation Highlight: Addressing Impacts to Natural Resources From a Changing Climate

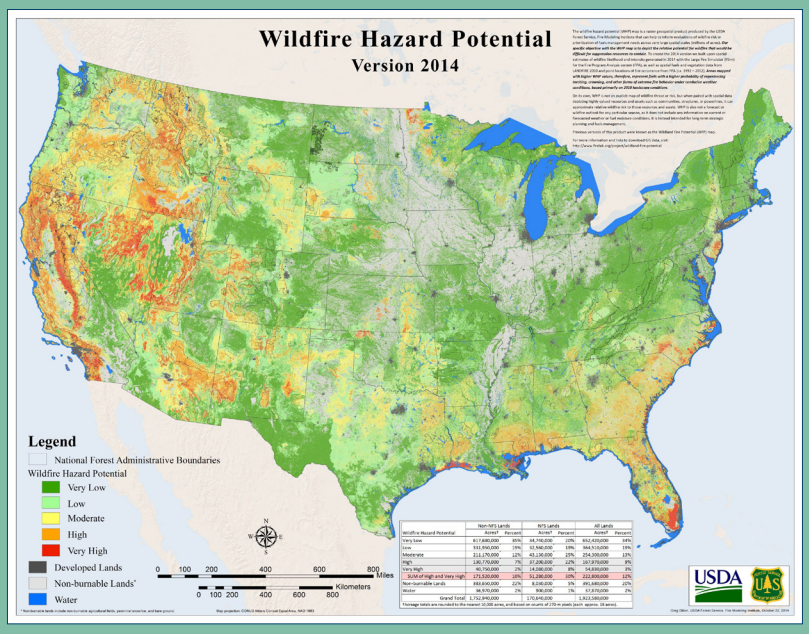
The Forest Service has forged numerous partnerships across the country to respond to climate change on Federal lands, including major efforts in the Western[9] and Eastern[10] United States. The Climate Change Response Framework (CCRF)[11] is a collaborative approach to helping land managers understand the potential effects of climate change on forest ecosystems and integrating climate change considerations into management. The CCRF is a collaborative, cross-boundary approach among scientists, managers, and landowners to incorporate climate change considerations into natural resource management. It provides an integrated set of tools, partnerships, and actions to support climate-informed conservation and forest management. Six projects encompass 19 States, including 14 national forests and millions of acres of forest land. Each regional project interweaves four components: science and management partnerships, vulnerability assessments, adaptation resources, and demonstration projects.

9 For more information, visit http://adaptationpartners.org.

10 For more information, visit http://forestadaptation.org.

11 For more information, visit http://www.nrs.fs.fed.us/niacs/climate/framework/.

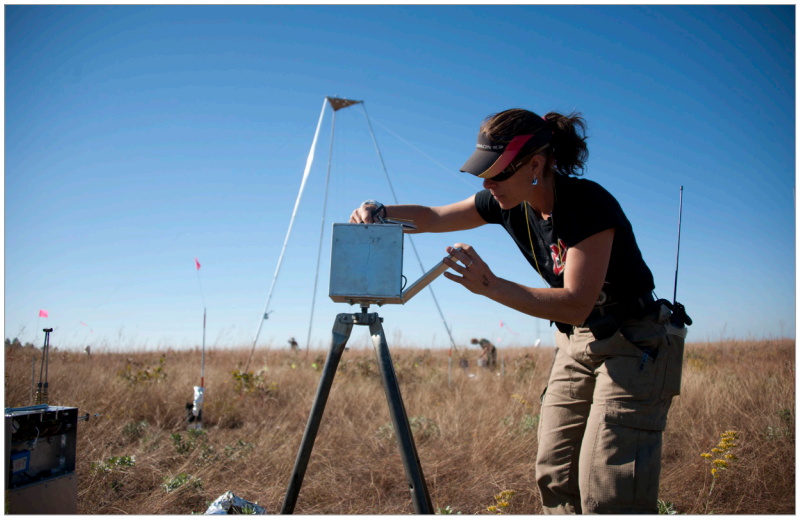
Understanding Wildfire Hazard Potential and Trends



Nationwide: Wildfire suppression costs have grown tremendously in recent years. Projections indicate this trend may continue to increase as a result of changes in climate conditions, increasingly populated wildland-urban interface areas, and hazardous fuel build-up creating unhealthy forests and grasslands that pose risk to surrounding communities. To better understand growing challenges, the Forest Service Fire Modeling Institute developed the wildfire hazard potential (WHP) map[1] in 2012 to support assessments of wildfire risk and the prioritization of fuels management needs across large landscapes. Updated in 2014, the WHP map depicts the relative potential for wildfire that would be difficult for suppression resources to contain. Areas mapped with higher WHP values represent areas with a high probability of fire and fuel conditions that are likely to result in torching, crowning, and other forms of extreme fire behavior. Utilizing the WHP map and other data, the Forest Service is additionally completing a national wildfire risk assessment to focus investments in risk mitigation to those places where probability of severe wildfire is high, and high-valued resources are vulnerable to damage from wildfire. Quantitative wildfire risk assessment helps the Forest Service understand where it needs to reduce fuels, where communities need to increase their fire-adaptation efforts, and where wildfire can be managed to reduce future wildfire risks.

1 For more information, visit http://www.firelab.org/project/wildfire-hazard-potential.

Using Science To Inform Decisions



(USDA Forest Service)

Forest Service research addresses key questions surrounding functional restoration for diverse ecosystems, including grasslands, forests, and watersheds, in response to disturbances such as fire, pests, and diseases. Forest Service restoration science activities[12] are interdisciplinary; help to evaluate tradeoffs and synergies for restoration; develop and test management options, systems, practices, and products for sustainably delivering intended outcomes; and work with stakeholders to establish realistic goals that are adapted to future conditions. Forest Service researchers have produced more than 2,000 publications that provide a science basis for restoration actions. Recent publications include General Technical Report RMRS-GTR-310, *Restoring composition and structure in southwestern frequent-fire forests: A science-based framework for improving ecosystem resiliency;*[13] General Technical Report PSW-GTR-237, *Managing Sierra Nevada forests;*[14] and *Contemporary forest restoration: A review emphasizing function*[15] published in *Forest Ecology and Management*. Forest Service scientists are providing science and landscape-scale decision support tools to help landowners and managers develop options and strategies for restoration, and engage with State and local governments, as well as private landowners, to share the science behind restoration activities.

Implementation Highlight: Restoring Composition and Structure in Southwestern Frequent-Fire Forests

(USDA Forest Service)

Forest Service research is used to guide restoration strategies and management actions. In application, the research is tested on the landscape. For example, during the Wallow Fire in eastern Arizona and a small part of western New Mexico, fuel reduction treatments guided by ongoing research were tested at the Eager South Wildland-Urban Interface Fuel Reduction Project Area. Forest Service scientists and collaborators synthesized this research and presented a management framework for ponderosa pine and dry mixed-conifer forests in the Southwest United States in RMRS-GTR-310. The framework informs management strategies that can improve the resiliency of these frequent-fire forests and is serving as a guidebook for work in Colorado and other areas of the Southwest to restore ponderosa pine and dry-mixed conifer forests, reducing fire risk and improving forest health.

12 For more information, visit http://www.fs.fed.us/research/forest-restoration/.

13 For more information, visit http://www.treesearch.fs.fed.us/pubs/44885.

14 For more information, visit http://www.treesearch.fs.fed.us/pubs/40254.

15 For more information, visit http://www.treesearch.fs.fed.us/pubs/46976.

The Four Forest Restoration Initiative

Arizona: As 1 of the 10 initial Collaborative Forest Landscape Restoration Program projects, the Four Forest Restoration Initiative (4FRI) is a collaborative effort involving more than 30 stakeholder groups and the Forest Service. Collaborators and the Forest Service established the 4FRI to enhance the health and resilience of a 2.4-million-acre ponderosa pine forest landscape, including portions of the Coconino, Kaibab, Apache-Sitgreaves, and Tonto National Forests, in northern Arizona. After years of conflict, the 4FRI effort brings together stakeholders with diverse perspectives to work towards a shared vision to restore the structure, pattern, composition, and health of fire-adapted ponderosa pine ecosystems; reduce fuels and the risk of unnaturally severe wildfires; and provide for wildlife and plant diversity. Forest Service staff work hand in hand with the 4FRI stakeholder group and members of the community to harness science and technological innovation and enhance the efficacy of treatment planning, implementation, and monitoring on a large, landscape scale. In developing the vision and National Environment Policy Act analysis for a restoration project that was unprecedented in scale, collaborators relied on research studies later summarized in RMRS-GTR-310, *Restoring composition and structure in southwestern frequent-fire forests: A science-based framework for improving ecosystem resiliency*. In fact, the members of the stakeholder group provided unanimous support for the first 4FRI environmental analysis. When the Wallow Fire burned hundreds of thousands of acres in eastern Arizona and a small part of western New Mexico in 2011, the 4FRI project area was impacted. The crown fire was intense and hit the Eager South Wildland-Urban Interface Fuel Reduction Project Area with full force. The blast of hot air caused mortality at the edge of and into the treated area for a distance of up to 300 feet. The crown fire, however, did not penetrate the treatment area. The treatment area greatly reduced the fire's spread, stalled the fire for several hours, and was instrumental in saving homes in the communities of Alpine and Greer. The 4FRI treatment efforts based on Forest Service research proved to be successful.

(USDA Forest Service)

A Continuing Commitment to Restoration

Restoration helps ensure that forests and grasslands continue to provide the goods and services that Americans want and need, including clean air and water, wood products, energy, recreation opportunities, carbon management, and fish and wildlife habitat. The Forest Service has accomplished and learned much since beginning to implement the principles and actions outlined in 2012. Using a variety of techniques and approaches—including mechanical treatments, prescribed fire, wildfire management, invasive species control, and stream restoration—the agency has treated millions of acres each year to enhance their resilience.

The Forest Service's priority is increasing the rate of restoration, despite mounting challenges such as record droughts and fire seasons in the West. For example, in 2015, an increase in Hazardous Fuels appropriations allowed the agency to focus on increasing risk mitigation efforts that put the principles of the intergovernmental Wildland Fire Management Cohesive Strategy into practice nationwide. Fuel treatments support all three goals of the Cohesive Strategy. Treatments are designed to increase the resilience of fire-adapted ecosystems by restoring conditions so wildfire can occur without devastating consequences, reducing risk to communities by treating fuels to reduce fire intensity in the wildland-urban interface or immediately adjacent to residential developments, and providing safe places and increasing response options for firefighters. Since 2012, the Forest Service Fuels Program has implemented treatments to reduce hazardous fuels on more than 5,346,000 acres across the country, including more than 2 million acres of mechanical treatments and more than 3.9 million acres treated with prescribed fire. Records show that, where fuel treatments are tested by wildfire, they reduce fire behavior and/or aid in suppression efforts in over 90 percent of cases.

While the term "restoration" often evokes a return to a past set of resource conditions or characteristics, landscapes are dynamic, and the pace of that change is accelerating. We cannot return to the past, but we strive to restore healthy function and resilience to ecosystems under stress. Private landowners and public land managers wish to improve the economic, ecological, and social capacities of landscapes to serve the needs of a rapidly growing human population in the face of a static or declining forest land base.

The Forest Service works to integrate science results and experience to inform restoration efforts and achieve desired outcomes more effectively and efficiently. The Forest Service will continue to work with stakeholders and partners to better understand the social drivers and demands surrounding forested landscapes and accomplish needed actions. The agency's focus on collaborative restoration, alignment of priorities with diverse stakeholders, and implementation of new authorities and efficiencies is resulting in better outcomes on the land, but there is a limit to the gains that can be realized through partnerships and efficiencies alone. Wildfires are becoming increasingly frequent and intense, making fire suppression more difficult and expensive. Projections indicate this trend might continue to increase. Trends in urbanization and development patterns have resulted in millions of citizens, homes, and entire communities located in fire-prone environments. Previous decades of aggressive fire suppression have resulted in widespread hazardous accumulations of flammable vegetation. And, as climate conditions change, fire seasons are growing longer, hotter, and drier. All of these factors indicate that wildfire can be expected to present an increasing challenge to the agency and to society.

Conclusion

In FY 1995, the Forest Service spent 16 percent of its budget on firefighting; today the Forest Service spends nearly half of its budget on fire management activities. This has enormous implications for how the agency carries out its mission. When all available fire resources from the Suppression and FLAME Fund accounts are exhausted, the Forest Service must transfer funds from non-fire accounts. The depletion of non-fire programs to pay for the ever-increasing costs of fire has real consequences. These represent lost opportunities for the Forest Service to undertake important work and deliver value to the American people, including to the agency's fire prevention and restoration work that could help prevent catastrophic wildfires. Fire funding transfers reduce the agency's ability to protect the natural and cultural resources that provide countless benefits and ecosystem services to the public. This threatens the thousands of jobs and billions of dollars of economic growth that national forests and grasslands and programs support across the country.

To solve this problem, the agency must change the way it pays for wildfire suppression. Instead of treating catastrophic wildfires as a normal agency expense, the Government must treat them more like other natural disasters, such as tornadoes or hurricanes. And, any solution must confront both parts of the funding quandary: it must limit or reverse the runaway growth of firefighting costs, and it must address the compounding disruption of fire transfers.

Bipartisan legislation that offers a more rational approach to funding wildfire, the Wildfire Disaster Funding Act, has been introduced in the House and Senate. It is mirrored by a similar option in the President's 2016 Budget. This proposal provides a fiscally responsible mechanism to treat wildfires more like other natural disasters, end transfers, and partially replenish agency capacity to restore resilient forests and protect against future fire outbreaks.

The USDA and the Forest Service stand ready to support the Wildfire Disaster Funding Act to address the growth of fire costs that is crippling the agency's ability to restore resilience to the Nation's forests and grasslands and to address the need for continued forest and rangeland restoration.

(USDA Forest Service)