The Nature Conservancy
Protecting nature. Preserving life.™

Worldwide Office
4245 North Fairfax Drive
Suite 100
Arlington, Virginia 22203-1606

TEL 703 841-5300
FAX 703 841-7400
www.tnc.org

Statement of Christopher Topik
Director, *Restoring America's Forests*
The Nature Conservancy

Proactive Forest Restoration and Wildfire Risk Reduction:
A Responsible Investment for People and Nature
Committee on Energy and Natural Resources, United States Senate
June 4, 2013

Mr. Chairman and members of the Committee, thank you for the opportunity to participate in this important conversation about the role of fire in our nation's forests and communities. My name is Christopher Topik and I am the Director of The Nature Conservancy's *Restoring America's Forests* Program. The Nature Conservancy is an international, non-profit conservation organization working around the world to protect ecologically important lands and waters for people and nature. Our mission is to conserve the lands and waters upon which all life depends.

The Conservancy's work across North America is guided by an ambitious vision that involves developing nature-based solutions to some of humanity's most pressing global challenges. Primary among our North American priorities is our *Restoring America's Forests* program, through which we aim to foster a dramatic increase in the proactive, science-based restoration of our nation's federal forests, thereby reducing the tremendous human and environmental costs associated with unnaturally large and damaging megafires.

The Nature Conservancy is deeply vested in forest conservation and the use of fire. We conducted our first prescribed burn on a TNC preserve 50 years ago, and we work with a wide variety of communities and partners to restore forests in a way that makes people, water and wildlife more resilient in the face of wildfire. Our collaborative approach supports management and planning that increases the capacity of forests to sustainably provide Americans with myriad benefits and services, now and into the future. Our leadership roles in facilitating the national Fire Learning Network and LANDFIRE science team are examples of this work.

The values at stake in our forests are enormous and serve to underline the important role forested landscapes play in our quality of life. Forests cover more than a third of our nation; they store and filter half our nation's water supply; provide jobs to nearly a million forest product workers; absorb 13% of our nation's carbon emissions; generate more than $13 billion in recreation and other related economic activity on Forest Service lands alone; and, of course, provide habitat to

thousands of American wildlife and plant species. These are not benefits restricted to rural or forest-dependent communities; rather they are integral to the well-being of every single American.

The new reality of ever larger and more frequent megafires is stretching the capacity of our forests to sustainably provide a full-range of benefits and services – and our public coffers to provide the funding to address wildfire suppression and post-fire recovery needs. Time is of the essence in shifting our nation's approach to wildfire from an emphasis on costly and reactive emergency response to a more balanced approach that includes significant investment in proactively restoring and maintaining resilient landscapes and creating truly fire adapted communities. The U.S. Forest Service's 2012 Report *on Increasing the Pace of Restoration and Job Creation on Our National Forests* [1] estimates that there are as many as 65 million acres of National Forest System land at high or very high risk of catastrophic wildfires. These numbers are further magnified when the condition and management needs on other federal and non-federal lands are considered.

The societal, environmental and fiscal costs of fire in our nation's forests continue their precipitous climb. During the 2012 wildfire season, alone, a relatively small 68,000 fires burned across nearly 10 million acres and resulted in a $1.9 billion bill for federal wildfire suppression (on top of the nearly $1.5 billion required to staff the federal fire programs). The cost of wildfire management currently consumes more than 40% of the U.S. Forest Service budget, leaving an ever smaller pool of funds to support hazardous fuels reduction, timber management, wildlife habitat improvement, recreational access, watershed protection and the wide variety of other important services that the American people value and expect.

Climate change is exacerbating the fire problem as our forests are becoming warmer, dryer and subject to both more extreme weather events and longer fire seasons. The Forest Service itself expects severe fires to double by 2050 [2]. Last year was the third biggest fire year since 1960, with 9.3 million acres burned— the Forest Service is estimating 20 million acres to burn by 2050. We are already seeing these impacts: the Four Corners region has documented temperature increases of 1.5-2 degrees Fahrenheit over the last 60 years [3]. It should come as no surprise that New Mexico has had back-to-back record fires the last two years, Arizona had its largest fire in 2011, and Colorado had its most damaging fire in 2012.

The *National Cohesive Wildland Fire Management Strategy* (Cohesive Strategy) establishes a helpful framework for guiding us toward a more balanced approach to fire, forests and communities, but it will take more than a document to enact the kind of fundamental and swift

[1] http://www.fs.fed.us/publications/restoration/restoration.pdf
[2] http://www.globalchange.gov/what-we-do/assessment/nca-overview; http://www.denverpost.com/breakingnews/ci_22943189/feds-project-climate-change-will-double-wildfire-risk?source=email
[3] Managing Changing Landscapes in the Southwestern United States, Center for Science and Public Policy, 2011, find here: http://azconservation.org/downloads/category/southwest_regional

change that is needed. We must also collectively put our time, money and resources behind our words.

During this time of tight federal budgets and pressing forest restoration needs, it is essential that we invest the limited resources we have both strategically and proactively in order to maximize the benefit for people, water and wildlife, while also reducing the costs for future generations.

Below are some additional thoughts on how to pursue this important course of action.

1. **Collaboration is a Foundation for Success**

The scale and complexity of the situation facing our nation's forests and communities means that we must find ways to forge agreement among diverse interests about the "where, when and how" of forest management and then focus our resources on those landscapes that are poised for success. Collaboration, once considered "innovative" and "new," has become an essential tool in the tool box of those hoping to reduce wildfire risks, increase forest restoration and contribute to the sustainability of local economies. By bringing together county commissioners, local mill owners, water and utility managers, fire protection officials, conservation groups, scientists and others, collaborative groups can identify mutually beneficial solutions to forest health challenges and, sometimes by enduring a few bumps and bruises, pave the way for smooth and successful projects on the ground.

Although effective collaboration takes many forms, the Collaborative Forest Landscape Restoration (CFLR) Program has been a valuable vehicle for prioritizing and testing a variety of collaborative, science-based approaches to forest restoration that both reduce wildfire risks and contribute to local jobs and economic opportunities.

In just three short years since its inception, the CFLR Program has provided support to 20 projects in 14 states, with an additional 3 high priority restoration projects receiving support from non-CFLR funds. Through these projects, the CFLR Program is demonstrating that collaboratively-developed forest restoration plans can be implemented at a large scale with benefits for people and the forests. From fiscal year 2010 – fiscal year 2012, the cumulative outputs generated by the funded projects already total: 94.1 million cubic feet of timber; 7,949 jobs created or maintained; $290 million in labor income; 383,000 acres of hazardous fuels reduction to protect communities; 229,000 acres of fire prone forest restoration; and 6,000 miles of improved road conditions to reduce sediment in waterways.

Equally important is the long-term commitment these projects have fostered to both community sustainability and forest resilience.

We must continue to fully fund the CFLR Program as authorized by this Committee, including the matching fund and monitoring requirements, as well as the project planning and preparation activities that facilitate implementation success, over the ten year life span of the projects. We must also increase our emphasis on and support for collaboration as a fundamental aspect of successful forest restoration planning and implementation. This should involve applying lessons learned through the CFLR Program to improve National Forest management throughout the system as collaborative, large-scale projects are created and new land management plans are developed under the new forest planning rule.

2. Proactive Management is a Responsible Investment

Across the nation, communities and land managers are struggling with how to address tens of millions of acres of National Forest, and several million acres of other federal and non-federal lands, in need of treatment to reduce the risk of unnaturally large or damaging wildfires. In the absence of large-scale restoration management, the federal government spends up to $2 billion annually on emergency fire suppression to minimize loss of lives, property, community infrastructure and vital natural resources. Hundreds of millions more are spent by local, state and federal governments, as well as private citizens, to address the devastating and often long-lasting impacts left in the wake of wildfires.

Strategic, proactive hazardous fuels treatments have proven to be a safe and cost-effective way to reduce risks to communities and forests by removing overgrown brush and trees, leaving forests in a more natural condition resilient to wildfires. When implemented strategically, at a meaningful scale, these treatments can make a crucial difference in the size, spread and severity of wildfires. They can improve the safety and effectiveness of firefighters and provide protection for a community or essential watershed that might otherwise see extensive loss.

Many of these hazardous fuels reduction projects are also providing jobs and other economic benefits to rural communities. For example, a recent economic assessment of forest restoration in Oregon revealed that "an investment in forest health restoration has the potential to save millions of dollars in state and federal funds by avoiding costs associated with fire suppression, social service programs and unemployment benefits."[4] In addition, for every $1 million invested in hazardous fuels treatments, approximately 16 full-time equivalent jobs are created or maintained, along with more than half a million in wages and over $2 million in overall economic activity.[5]

It is absolutely essential that we maintain federal investments and skilled capacity in reducing hazardous fuels. The Ecological Restoration Institute's (ERI) valuable new study on the efficacy

[4] National Forest Health Restoration: An Economic Assessment of Forest Restoration on Oregon's Eastside National Forests. Prepared for Governor John Kitzhaber and Oregon's Legislative Leaders. November 26, 2012. Quote on page (iv). http://www.oregon.gov/odf/BOARD/docs/2013_January/BOFATTCH_20130109_08_03.pdf.

[5] The Employment and Economic Impacts of Forest and Watershed Restoration in Oregon. Max Nielsen-Pincus and Cassandra Moseley, Institute for Sustainable Environment, University of Oregon. Spring 2010, page 1.

of hazardous fuels treatments presented at this hearing is part of a growing body of literature documenting the many instances in which on-the-ground actions have modified wildfire behavior, thereby allowing firefighters to safely engage in protecting infrastructure and landscapes.[6] Others have also compiled evaluations of a number of studies of hazardous fuels treatments that show that in most areas, when done right, the activities are effective. Rather than repeat those references, I will described a couple instances where I personally witnessed the role strategic fuels reduction treatments can play in enabling an entire community to survive a horrific wildfire.

I refer first to the Esperanza Fire, an arson caused blaze which tragically cost the lives of five firefighters in California's San Bernardino National Forest in October 2006. The Esperanza Fire also destroyed 30 homes, but the entire town of Idyllwild may well have been destroyed if not for the extensive hazard reduction activities that were implemented in the area thanks to funding from the U.S. Forest Service and Natural Resources Conservation Service. During an official oversight trip for my previous job with the House Appropriations Committee, I toured the entire Idyllwild area the day before the fire, and then witnessed the fire's progression from a distance. Defensible space treatments implemented along the main roads into and out of Idyllwild fostered the safe passage of citizens and firefighters; areas where strategic thinning had reduced overly dense stands of trees served to modify the potential for crown fire; and reduced brush in proximity of structures helped to slow fire spread.

The post-fire assessment of Arizona's record-setting 2011 Wallow Fire also clearly demonstrated that homes and forest were saved in and around the town of Alpine by management treatments applied in tandem with FireSafe practices near structures. I had the good fortune of flying with Project Lighthawk last summer over the entire Wallow Fire burn site. The fire area was huge, over half a million acres, and a very complicated and complex burn pattern occurred. It was clear that the extensive tree thinning treatments around the town of Alpine caused the fire to calm down so that firefighters, including the Conservancy's own Southern Rockies Wildland Fire Module, could protect extensive infrastructure.

My informal case studies, along with those that have been more formally documented in recent publications, provide further evidence that proactive forest management pays. But it is also clear that the scale and pace of this proactive forest management must increase and that treatments must be balanced between both developed and wildland areas.

The Nature Conservancy was very disappointed to see that the President's FY 2014 Budget proposes devastating cuts to the Hazardous Fuels Reduction programs for both the U.S. Forest Service and the Department of the Interior. The nation has experienced a 57% increase in acres burned this past decade; the National Interagency Fire Center is predicting extreme fire potential

[6] http://library.eri.nau.edu/gsdl/collect/erilibra/index/assoc/D2013004.dir/doc.pdf

for most of the West this summer[7]. It does not make sense to reduce the nation's investment in one of the few proven federal programs that get us ahead of the problem.

We are also concerned to see that the President's FY 2014 Budget emphasizes protecting structures nearly to the exclusion of natural areas that support life and livelihood. The Conservancy agrees that funding is urgently needed to create community protection buffer zones that can limit the damage from wildfire. Fighting fires will remain costly until such buffers are in place and people feel safe.

But shifting too much funding away from undeveloped forest areas where fires have been excluded for a century, and conditions remain overly dense and susceptible to unnaturally damaging wildfire, will have a long-term negative impact on forest health and resiliency. The Nature Conservancy urges a balanced allocation of funding between treatments in wildland and developed areas.

Strategic mechanical fuels reduction in wildlands, combined with controlled burning to reduce fuels across large areas, can significantly reduce the chance that megafires will adversely impact the water supply, utility infrastructure, recreational areas and rural economic opportunities on which communities depend.

We hope that this Committee will work with the Appropriations Committee, the Administration and others to foster funding that facilitates proactive management and hazardous fuels reduction, including the use of fire as a safe and cost-effective management tool, at a meaningful scale. We also encourage sustained investment in applied research, such as the Joint Fire Science Program, that develop both information and tools that enable land managers to maximize the effectiveness and ecological benefit of fuels treatments.

3. Provide Sufficient Funding for Emergency Wildfire Response

The Nature Conservancy recognizes that even with a robust, proactive approach to land management, federal fire preparedness and suppression resources will need to be maintained at an effective level to protect life, property and natural resources. Unfortunately, wildfire suppression expenditures are currently far out of balance and threaten to overtake the vital management and conservation purposes for which the USDA Forest Service and Department of the Interior bureaus were established.

The dramatic increase of homes near natural areas that are prone to frequent and unnaturally damaging fire has added significantly to the cost of fire suppression. In the past, paying for this tremendous cost often resulted in "borrowing" or outright transfer of funding from critical land management and conservation programs into fire suppression accounts. Fire borrowing, and the

[7] http://www.predictiveservices.nifc.gov/outlooks/outlooks.htm

threat of fire borrowing, has a chilling effect on the ability of land managers to plan the complex activities that modern forestry requires and retain skilled contractors and workforce. Previous hearings and GAO work documented the tremendous adverse impacts of this fire borrowing helping to generate the public outcry and Congressional action that led to the FLAME Act[8].

The FLAME Act of 2009[9] was signed into law as part of a bipartisan effort to change the funding mechanism for wildfire suppression by establishing two emergency wildfire accounts funded above annual suppression. The original version of this Act passed the House of Representatives in March 2009 with a vote of 412-3. These FLAME reserve accounts were intended to serve as a safeguard against harmful fire borrowing and should have represented an important change in the funding mechanism for wildfire suppression.

One of the cornerstones of the FLAME Act was the establishment of two FLAME wildfire suppression reserve accounts, one each for the Forest Service and the Interior Department. In passing the FLAME Act, Congress intended to fully fund federal wildfire suppression needs, while avoiding the need to transfer monies from other agency programs to fund emergency wildfire suppression expenses. Annual suppression was to be calculated using an improved predictive modeling that included the ten-year average and other indicators. The FLAME reserve accounts were to be funded at levels beyond average annual suppression expenditures and not at the expense of other agency programs. Additionally, any balances remaining in the FLAME accounts were to carry-over into future years so that funds retained in years when we have less than average expenditures could be held over for the inevitable, high cost years.

Disappointingly, the implementation of the FLAME Act has not proceeded as intended. Due to several factors, last year the Administration again transferred hundreds of millions of dollars from the agencies' non-suppression programs into emergency response accounts before the end of FY 2012.

Forecasts for the fiscal year 2013 wildfire season suggest another costly year ahead and strongly indicate that funds will again be transferred from non-suppression accounts, resulting in severe disruption of agency programs, including the hazardous fuel reduction and other forest management programs that would help to reduce wildfire suppression costs in the future.

In order to move beyond this harmful and disruptive cycle of underfunding suppression needs and then robbing from other critical programs to fill the gaps, we recommend that the FLAME Accounts be fully funded as intended, separately from and above the ten-year average used to calculate annual wildfire suppression needs. We also recommend that annual suppression needs

[8] Wildfire Suppression Funding Transfers Cause Project Cancellations and Delays, Strained Relationships, and Management Disruptions GAO-04-612, June 2004

[9] Federal Land Assistance, Management and Enhancement Act of 2009. Title V of Division A of 123 STAT. 2904 PUBLIC LAW 111–88—OCT. 30, 2009.

be fully funded using the ten-year average along with more predictive modeling based on current weather conditions, fuel loads and other data that contribute to wildfire risk. Finally, we ask that any remaining balance in the FLAME accounts at the end of FY 2013 carry over into FY 2014.

The Nature Conservancy further recommends that an expert panel be commissioned to provide options for a more effective and sustainable approach to federal emergency wildfire suppression funding. The critical life and safety mission associated with wildfire suppression should be guaranteed adequate funding, with oversight and efficiency safeguards, but this funding should not come at the expense of the other vital conservation, public service and science activities for which the federal land management agencies, and other agencies and bureaus which share the same federal funding source, were established. The Conservancy recommends that a new, separate federal funding source be established so vital fire suppression activities are funded distinct from existing land management requirements. One option the Committee might consider is the establishment of a "Disaster Prevention Fund" that could be utilized to support vital federal fire suppression actions during emergencies just as the Disaster Relief Fund is utilized to help communities recover after disasters. Fire suppression is different from other natural disasters, since the federal response is needed most acutely during the actual event. Such support should complement prevention and risk reduction activities discussed earlier, and post-fire recovery and restoration actions.

4. Communities Must Be Part of the Solution

Federal agencies alone cannot prevent the loss of homes, infrastructure and other values in the wildland-urban interface (WUI). Individuals and communities living in the WUI must meaningfully invest in preparing for and reducing their own risk from fire. Post-fire studies repeatedly show that using fire resistant building materials and reducing flammable fuels in and around the home ignition zone are the most effective ways to reduce the likelihood that a home will burn.[10] Similarly, community investments in improved ingress and egress routes, clear evacuation strategies, strategic fuel breaks and increased firefighting capacity can go a long way toward enabling the community to successfully weather a wildfire event.

Many communities across the nation are already deeply engaged in trying to proactively address their role within fire driven forest ecosystems, but this engagement must be both sustained and increased. For more than 10 years, the Nature Conservancy has worked cooperatively with the U.S. Forest Service and the Department of the Interior to foster the Fire Learning Network (FLN) that brings communities together and helps them build collaborative, science-based strategies that protect both people and ecosystems. The FLN supports public-private landscape partnerships that engage in collaborative planning and implementation, and provides a means for sharing the tools and innovations that help them scale up. Locally, the FLN helps federal land managers to: convene

[10] See, for example, Four Mile Canyon Fire Findings. Graham, et al. Pages 64-69. http://www.fs.fed.us/rm/pubs/rmrs_gtr289.pdf.

collaborative planning efforts; build trust and understanding among stakeholders; improve community capacity to live with fire; access training that helps fire professionals work with local communities; and address climate change and other emerging threats.

Community commitment is also necessary to effectively shift our national approach to wildfire from a costly emphasis on disaster response to a balanced and proactive strategy with multiple benefits. Research increasingly shows that rising wildfire suppression costs are directly linked to the growing presence of homes and related infrastructure in the wildland-urban interface.[11] A corresponding analysis by Headwaters Economics revealed that with 84% of the WUI is still undeveloped, so there is tremendous potential for the costs associated with wildfire protection to exponentially increase.[12] According to the same study, if just half of the WUI is developed in the future, annual firefighting costs could explode to between $2.3 and $4.3 billion. By comparison, the U.S. Forest Service's total average annual budget is $5.5 billion.

Given the potential for devastating increases in both values lost and public expense, a diverse range of agencies and organizations (including The Nature Conservancy) have begun promoting the concept of "fire-adapted communities." The Fire Adapted Communities Coalition established and hosts www.fireadapted.org, which provides access to a wide variety of educational materials and tools in support of community wildfire protection planning and action.

The U.S. Forest Service defines a fire-adapted community as a knowledgeable and engaged community in which the awareness and actions of residents regarding infrastructure, buildings, landscaping, and the surrounding ecosystem lessen the need for extensive protection actions and enables the community to safely accept fire as a part of the surrounding landscape.[13] This level of individual and community preparedness goes beyond just developing a plan and begins to make the fundamental shift that must occur if we are going to get beyond our current wildfire suppression burden and toward restoring resilience to our nation's forests.

Programs such as State and Volunteer Fire Assistance provide important resources to help states and local communities develop and sustain community wildfire protection capacity. We encourage both the federal land management agencies and this Committee to prioritize programs that foster the development of fire-adapted communities and, specifically, to allocate other federal resources in a way that rewards communities for proactive actions that collectively result in national benefit. Building local community capacity to learn to live with fire is the most cost effective way of reducing harmful impacts to society, while also allowing for enhanced, safe and controlled use of fire to restore wildlands as appropriate.

---

[11] Wildfire, Wildlands and People: Understanding and Preparing for Wildfire in the Wildland Urban Interface. Stein, et al. Page 7. http://www.fs.fed.us/rm/pubs/rmrs_gtr299.pdf.
[12] http://headwaterseconomics.org/wildfire/fire-research-summary/.
[13] http://www.fs.fed.us/fire/prev_ed/index.html.

5. Efficiency and Innovation to Increase the Pace of Success

The Nature Conservancy strongly supports the Administration's goal of accelerating restoration in our Nation's forests as described in the February 2012 report, *Increasing the Pace of Restoration and Job Creation on Our National Forests*. In this report, the agency acknowledges that the pace and scale of restoration must dramatically increase if we're going to get ahead of the growing threats facing our forest ecosystems, watersheds and forest-dependent communities. In order to facilitate this accelerated rate of treatment, we must make effective use of all available management tools and explore opportunities to increase the efficiency of planning and implementation processes.

Stewardship contracting, for example, is an innovative and critical tool that allows the U.S. Forest Service and Bureau of Land Management to implement projects that restore and maintain healthy forest ecosystems, foster collaboration and provide business opportunities and local employment. Stewardship contracts are the only administrative tool that can ensure up to 10 year supplies of timber, a level of certainty that encourages job creation and long-term industry investment. Without Congressional action, Stewardship Contracting authority will sunset on September 30, 2013. Permanent reauthorization is urgently needed to provide surety for contractors and communities and to ensure that the USFS and BLM retain this important proactive tool to address our daunting forest restoration needs.

The beneficial use of fire as a tool for resource management is another area where greater forest restoration efficiency and effectiveness could be achieved. By increasing the use of both controlled burns and naturally ignited wildland fires to accomplish resource benefit, land managers can accomplish both ecological and community protection goals on a larger scale and at reduced cost. In fact, some states annually reduce fuels on more than 100,000 acres in wildlands with fire treatments. The Nature Conservancy recommends that both Congress and the Administration make it clear that the safe and effective use of fire is a priority for land management agencies, and provide the necessary funding, training and leadership support needed to foster increased fire use where appropriate.

We were pleased to see the emphasis on collaborative, science-based and adaptive management contained in the new National Forest System Land Management Planning Rule and draft Directives. We hope that, once finalized, this new framework will be promptly implemented and will guide a new round of forest planning that is both more meaningful *and* more efficient, and sets the stage for timely implementation of projects that achieve multiple benefits on the ground. Clear guidance and support for the development and implementation of monitoring strategies will also be essential to the Rule's success.

Finally, while we are committed to the principles of public engagement and environmental review embodied in the National Environmental Policy Act (NEPA), we believe there may be opportunities to significantly increase the efficiency of these processes through targeted adjustments in policy and implementation. The U.S. Forest Service is currently testing and tracking a variety of innovative NEPA strategies that hold promise for broader application. Adaptive NEPA, for example, is a relatively new approach in which the official record of decision allows sufficient leeway for some variety of subsequent federal actions, thereby greatly streamlining the analysis, allowing for more efficient project implementation, and enabling land managers to more effectively incorporate emerging science. These innovative approaches to NEPA should be expanded and additional opportunities sought for streamlining policies and processes in a way that increases the pace and scale of implementation while holding true to the core values inherent in the Act.

Conclusion

Thank you for your attention to the important issues related to wildfire, forests and communities. We appreciate the opportunity to offer the Nature Conservancy's perspective on how we might shift our focus toward a more proactive and cost-effective management approach that provides multiple benefits to people and nature. Please let us know if we can provide any additional information or assistance to the Committee as you move forward in this arena.