

13 March 2017 - Tom Harbour

Fire and the Farm Bill  
Lives and Landscapes

I'm Tom Harbour and I'm pleased to be asked to testify to Congress. Wildland fire has been the focus of my professional life since 1970 when I picked up a shovel for the United States Forest Service (USFS) in central California for my first wildfire. I spent 46 years with the United States Forest Service (USFS). I had an opportunity to deal with forest and rangeland fires in every region of these United States. I represented our Nation in international wildfire situations. I retired in January 2016 after 11 years as the National Director of Fire and Aviation Management (basically, the National Fire Chief) for the USFS, the longest serving Fire Director in the Agency history. I worked my way up from the bottom and over the course of my career had the opportunity to serve in many capacities including duties at every organizational level of the USFS and every component of the fire program. I was an Incident Commander at the highest level, Area Commander, Regional Director, and National Deputy Director. In 2014, I was honored to have the State Foresters present me with the Earl Peterson Current Achievement Award for Fire Protection. I believe this was the first time a USFS Fire Director was honored with this award. Now I am a concerned citizen with continuing interest in fire. Today I have the notable privilege to interact with you.

We have the best fire suppression system in the world, the best people, the best scientists, but we need the best fire management system in the world. The fire management we need to do is more than we as a nation are doing now. It is thinking about what we do before, during, and after any fire, acting for the long term, based on accumulated wisdom. In too many ways we are bound to traditions and past practices. The laws, rules, regulations and practices of the past need to be evaluated and updated to deal with the future. Fire management is more than fire suppression. We can be leaders in fire suppression, as well as fire management, natural resource management, forestry, and conservation, but only if we learn from what is happening now.

We know fire played an important role in establishing the forests and grasslands of our Nation. Fire needs to play an important role in sustaining and promoting healthy forests and rangelands. We've known for years that a singular focus on fire suppression is not sustainable. For example, forests in the southeastern part of our United States have adopted aggressive prescribed burning programs, especially in pine forests. Forests in the northeastern part of our United States have their own interesting fire management concerns. Large blocks of federal lands out west are the "poster child" for unwanted wildfire. Essentially, the USFS was "born of fire", but as early as the 1970s, federal agencies clearly understood fundamental principles of fire management. By 1978, for example, the USFS changed the title of its Fire Control division to Fire Management. General ideas about fire management became more well known through the 80's and 90's. In 2001 an update of a review done of federal wildland fire policy resulted in important guiding principles and endorsement of a key doctrinal statement. That statement is:

"Fire, as a critical natural process, will be integrated into land and resource management plans and activities on a landscape scale, and across agency boundaries. Response to

wildland fire is based on ecological, social, and legal consequences of fire. The circumstances under which a fire occurs, and the likely consequences on firefighter and public safety and welfare, natural and cultural resources, and values to be protected dictate the appropriate management response to fire.”

That statement encompasses the basics of wildland fire management. Fire management includes wise suppression practices while encouraging long term conservation principles. Fire management can be equally applicable to private and public lands. Said collectively about our United States, our conceptual understanding of fire management has preceded and progressed faster than our practices. That is why the forthcoming Forestry title of the Farm Bill is an opportunity. We need to help encourage policies and practices which move us more aggressively to fire management. Without change, our nation faces a future where wildfires increasingly darken our skies, degrade our lands, destroy our homes, and empty our coffers. If that bleak future happens, and it will without change, vibrant young women and men will die more frequently as they put themselves between the flames and the people they serve.

Wildfire has been a significant national concern since the firestorms of 1910 in northern Idaho killed 87 people, burned several communities, and consumed timber on three million forested acres. Building on the concern of a nation that had two thousand people die in a single wildfire (Peshtigo) in northern Wisconsin in 1871, those 1910 fires spawned a debate about how we deal with wildfire. That debate continues today, but we have the benefit of over a century of learning, perspective, and science to help us form better public policy and improved practices about fire in our United States. As you know, we simply can not put out every fire every time, nor is it wise to do so.

Fire has long been a concern of Congress. I know a better future with fire is a concern of this committee. After congressional action, a large group of partners affected by wildfire, led by Governors, County Commissioners, Mayors, and the Secretaries of Agriculture, the Interior, and Homeland Security have agreed upon broad goals to guide future actions. This agreement is known as the National Cohesive Wildfire Strategy (the Cohesive Strategy). The Cohesive Strategy has three goals:

1. Resilient Landscapes
2. Fire Adapted Communities
3. Safe and Effective Wildfire Response

The Farm Bill Forestry title should be used, and added to, as one of the pieces of good public policy, to promote positive action on all these worthy goals. It has done so before and should in the future. In the 2014 Farm Bill, key pieces of the Forestry title, specifically Stewardship Contracting, Good Neighbor Authority, State based Statewide assessments, and Reimbursement of Funds to assist states were all good enduring public policy and good practices with wide application.

Fire touches every state. Fire of the future, without change, will be a significant detrimental impact in every Region of the United States. As highlighted by the tragedy which befell

Gatlinburg, Tennessee in December, and by the prairie fires of last week, wildfire is a continuing year round problem in our United States. Wildfire threatens lives of civilians and firefighters, it threatens landscapes which supply our water, our timber, and wild places. Fire can threaten entire communities. It threatens agencies like the USFS who increasingly see the bulk of their work directed towards fire suppression. The kind of wildfire we are seeing today and which will occur without a change in our approach, threatens not only firefighters and the public, but our national forestry conservation ethic and nearly every other forestry initiative. Specifically:

- Currently, around 75,000 wildfires per year burn between 5 to 10 million acres per year in the US. Without change, these figures will rise in the future. Most of the fires occur on private, local, and state lands. Most of the acres burn on federal lands.
- Up to \$100 billion damage to infrastructure, public health, and natural resources may be occurring each year from wildfire.
- An estimated 120 million people in over 46 million homes are at risk due to wildfire.
- About 3,000 homes per year are being lost. With more than 86% of undeveloped private lands proximate to public land, future increased fire severity, and increased development, even more homes will burn. In 2015, about 5,000 structures were lost.
- \$5 billion per year (or more) in direct fire suppression costs are being spent by Local, State, and Federal agencies. Future costs are likely to increase dramatically without a change in approach.
- The impact of high intensity fire on private lands can be devastating to the property owner and of significant negative impact to those “downstream”.
- The integrity of the forest and rangeland conservation mission in some agencies, for example, the USFS, is threatened by fire because of the extraordinary expense of fire suppression. By the year 2025, 2/3 of the USFS budget could be devoted solely to fire. The need to deal with wildfire is dramatically changing the USFS. Other agencies face similar challenges.
- Wildland firefighters die at a rate 5 to 10 times higher than their sisters and brothers who battle fires in buildings and homes (structure firefighters)
- Intense fire activity, extended time away from home, “near misses”, tragic deaths, and the nature of our personal connections with other firefighters, have caused depression, and suicide, in an increasing number of wildland firefighters.
- Despite all our efforts, between 15 to 20 wildland firefighters, vibrant young women and men, continue to die each year in the line of duty.

Through a series of well intended decisions made over the last several decades, wildfire has slowly become an increasingly significant problem. Wildfire occurs too frequently at the wrong time in the wrong places. More and more of the values we treasure, our lives, our homes, and our landscapes, are being threatened by fire. The threat of fire is increasing as many important and critical values increase on private lands, not within the public domain, but very near.

Conundrums abound with our current approach. The “wildfire paradox” (coined by Dr. Dave Calkin et al) is that “current fire suppression practices invariably lead to wildfires which can not be suppressed”.

Increasingly volatile fire behavior in increasingly frequent and difficult tactical situations endangers not only people, communities, community improvements, and natural resource values, but the most talented fire responders in the world. Increasing values on private lands proximate to public lands are the focus of much of the threat of wildfire and increasingly the place where our firefighters are deployed. As an example in 2015, my last year of active duty, the largest fire in terms of direct property loss (monetary property damage) in the United States was the "Valley Fire" in California with a loss of \$1.5 billion. In nine of the ten years before 2015, a wildfire (not a warehouse fire, not a building fire, not a depot fire, etc) was the largest single direct property loss fire of the year. The Mayor of Gatlinburg, Tennessee estimated \$500 million of damage to his town from the recent "Chimney Tops 2 Fire". Unless we change, our future may have been previewed in Canada when on May 1, 2016 a wildfire broke out in the Alberta city of Fort McMurray. The fire became the costliest ever Canadian natural disaster for insurers, with 1,600 buildings destroyed. Two fatalities were attributed to the fire and the entire population of about 90,000 were evacuated.

We have the best fire suppression system in the world, the best people, the best scientists, but we need the best fire management system in the world. Let's keep what we have for that amazing fire suppression system, while we enhance fire management.

The Forestry title of the Farm Bill can help shape a better future.

In the vernacular of fire, when a fire is running uncontrolled, we decide where we can begin our work. We call it an "anchor". An "anchor point" in our world is somewhere where we can start, stay, and endure safely. It is a place where we are sure things will "hold". Working as a team, we "anchor", then go from that point to begin the long arduous process of dealing with the fire. As you debate the new Farm Bill there are several "anchor points" to start from as we focus on better fire management.

We need to invest the dollar ahead of the wildfire instead of the comparable ten or hundred dollars after. Utilizing Farm Bill Forestry title incentives to help promote practices which reduce risk on private lands would benefit neighboring public lands. For example, we should encourage prescribed burning on private lands by encouraging adoption of statutes which promote burning. We need more incentives and markets to remove small woody biomass from our forests, public and private, large and small. Wood-based nanotechnology as a biomass use, by creating high-value, high-volume markets, would create cost-effective ways to enable enough hazardous fuels to be removed from America's forests so wildfires remain smaller and begin again to be a tool for improved forest health as opposed to destructive behemoths that destroy lives, communities and landscapes. The future of nanotechnology may revolutionize small woody biomass, but for now we need to remove it since the "small stuff" is what causes the "big stuff" to burn. We need more responsible, active, forest management on private and public lands. We need to learn from the exciting insights of the best fire scientists in the world to improve our understanding and practice of risk management in the context of fire and natural resource management. Those risk management practices could help us determine where and when we take effective action. Since fire knows no boundaries, we need to be even better in

reaching seamlessly across jurisdictions ahead of wildfire with treatments, planning, and coordination. We need better ways, tools, and incentives for citizens to engage in understanding and mitigating the risks to their homes and forest property. We need to find ways to encourage and reward local government for adopting land use policies and building practices which reduce wildfire risk. We need to find ways to facilitate local and state based solutions to the problems of wildfire. State and local voices will be important to shaping a different future. We need a greater focus on improving efficiency. We need to determine how we maintain a focus on natural resource management while we strive for greater excellence in fire management. We need to learn from programs which save firefighter lives, for example, adapting the "Everyone Goes Home" program from the National Fallen Firefighter Foundation for wildland fire.

We do need to light the candle at both ends! Doing "nothing", or continuing to do what we have done, is a choice, one which brings tragedy. There are local needs which can be incentivized and encouraged, things like better planning, zoning, application of existing codes, prescribed burning, improved forest management for small landowners, training, coordination, and equipment. There are state needs and there are national needs, like improving federal/state/local/private coordination, setting priorities, ensuring cross boundary coordination, reducing the liability risk of burning, maintaining the excellence of our firefighters and their assets, all while we implement the goals of the Cohesive Strategy. The Farm Bill could play a role in these important conservation activities.

I suppose in some sense, you could say my time to be of significant influence in this debate about conservation, forestry, and wildfire has passed. I retired from active duty with the USFS. However, I look into the faces of my dear little granddaughters and I know what I want for them. I want them to enjoy the fruits of our efforts in wildland fire management and natural resource conservation. I want them to have the benefit of water and timber and scenery and wildlife which comes from the private and public lands which comprise our nation's forests and grasslands. If they are so inclined, I want them to be able to follow in the footsteps of their Grandpa, their Smokejumper Dad/Uncle, and be a professional in wildland fire. But I'm here today because if we don't make some important changes, if we think today is "good enough", and if we don't take this opportunity with the Farm Bill, our forests will be forever changed and wildfire will be even more dangerous.