

Responses to Questions for the Record for Tom Boggus, Texas State Forester
Hearing: Air Quality Impacts of Wildfires: Mitigation and Management Strategies
(Sept 13, 2018)

Questions from The Honorable John Shimkus

- 1. What is necessary to increase the pace and scale of prescribed burning and other active forest management activities? More specifically what needs to happen at the Federal level vs State and local levels?**

Increasing both prescribed burning and active forest management are critical to improving forest health and supporting economic prosperity and safety in rural communities across the country. At the state and local levels, it is imperative that we help communities and citizens understand the dire risks from catastrophic wildfire, and the tie between prescribed burning and active management to reducing that risk. Maintaining the social license to burn and harvest has always been a key to our successful forest management in Texas and many other parts of the South, but it is becoming increasingly challenging as our country is urbanizing. Increasing awareness within the regulatory community is also important, helping state environmental authorities understand the benefit to allowing some prescribed fire smoke in lieu of an egregious amount of wildfire smoke and potentially catastrophic tree and property losses sometime down the road.

At the federal level, public land management agencies need more tools and resources to facilitate and streamline active forest management. Our federal forests are in dire need of restoration and fire risk reduction, and it is very much in the public interest to find ways to support getting that work done. The Good Neighbor Authority is particularly helpful, as it allows state agencies to carry out work on federal lands. Texas was an early adopter of this authority and continues to find ways to help our federal partners restore the health of our federal forests. Federal programs that support technical assistance to private landowners through the state forestry agencies are also critical to keeping our forests actively managed and healthy. In particular, the Forest Stewardship Program (FSP) of the USDA Forest Service is the gateway through which private landowners are encouraged and educated on how to burn and manage their acres to keep them healthy. Supporting FSP and other critical State and Private Forestry programs is essential to keeping up the pace of active management and prescribed burning.

- 2. Can you provide your perspective on whether more coordination among federal and state authorities is needed to make a meaningful difference in reducing the risks of catastrophic wildfires?**

Increasing coordination between public agencies and authorities is crucial, whether that be at the state, federal or local level, to address wildfire suppression and mitigation challenges. The recently released report from the USDA Forest Service “*Toward Shared Stewardship Across Landscapes: An Outcome Based Investment Strategy*” presents an unprecedented opportunity to foster that collaboration among fire and forest managers. The forested landscape in our country is a patchwork of ownerships (private, state, federal, tribal, etc), and fire, insects, disease and other challenges know no boundaries. To make a meaningful difference in addressing any of these challenges we need to work together, draw from each other’s strengths, and coordinate our resources to be most efficient with the tools we have.

3. Should air quality considerations play a greater role in informing decisions related to wildfire suppression and forestry management planning, and if so, how so?

The air quality impacts of fire on communities are becoming increasingly apparent as fires get larger and more people move closer to forested areas. These and other changes necessitate an intentional assessment of air quality impacts alongside any plans for forest management, prescribed fire, or wildfire suppression. Health and human impact data is increasingly showing that the serious risks to humans from wildfire are not confined to the flames on the ground, but that smoke impacts dozens or even hundreds of miles away could be the greatest human threat from fire.

As such, this should be a wake-up call to do more prescribed burning under manageable conditions as well as forest thinning and active management to reduce hazardous fuels. If we have the ability to do preventive work in our forests to reduce air quality impacts on communities from wildfire, then our management decisions need to be informed by that opportunity. At the federal level, National Environmental Policy Act (NEPA) analyses should include assessments of the benefits of proposed forestry projects on potential wildfire air quality emissions which would be of detriment to the environment and human communities, and that information considered by line officers in their decision making.

Questions from The Honorable Bill Flores.

1. Your testimony mentions both prescribed burning and tree thinning as important tools available to make our forests healthier and less fire prone.

- a. As a forester, could you explain how cutting trees makes the remaining forests healthier?**
- b. How successful has tree thinning been in Texas and the rest of the country? Should we be doing more?**

In any forest, there is a finite amount of resources (water, nutrients, etc) to be shared among the trees and associated vegetation. The trees are in competition for these resources. When some of the trees are removed, this allows the remaining trees to access more water and nutrients, grow larger, and get healthier. Healthier trees are more resistant to insects and disease and the forest more resilient to wildfire. As land managers, we aim to manage each forest stand at a density that allows the trees to be as healthy as possible. When the density gets too high, we cut the smaller trees (i.e. – forest thinning) or use prescribed burning to thin out the smaller trees and brush to reduce the stand density to an ideal level for forest health.

Additionally, reducing hazardous fuels through either prescribed burning or forest thinning makes the remaining forest more resilient to wildfire. Without the ground fuels and small trees that act as “ladder fuels” that would otherwise transport fire into the upper canopy and damage or destroy the trees, wildfires in thinned managed stands take on a healthier more historically appropriate role. These fires stay closer to the ground, produce less smoke and air quality pollutants, are easier to contain, and have many ecological and wildlife benefits. This is all made possible by proper tree cutting and/or prescribed fire.

We need to be doing more tree thinning all across this country, especially on federal lands where we see millions of acres in need of restoration. There is a need for more resources at all levels to support federal land managers, state agencies, private landowners, and other stakeholders to conduct these thinning operations that benefit all of society. A critical component to getting enough thinning done on the landscape is having forest products markets for biomass and the

small diameter trees that are thinned out. Often times this is the limiting factor in how much good work can be done on the ground – if there are no markets then sound management will be limited. We need to be doing more to support domestic markets for small diameter thinned wood.

In Texas, we partner with the USDA Forest Service to deliver the Forest Inventory & Analysis program. This program collects tree and forest data from all across Texas to provide meaningful information about forest health and timber availability. Because of FIA, we were able to demonstrate that Texas has enough trees to sustainably supply a brand-new oriented strand board (OSB - similar to plywood) mill in Corrigan, TX, as well as a brand-new sawmill in Lufkin, TX. These two mills will provide hundreds of jobs and will create new markets for Texas forest owners.

As stated in my written and oral testimony, Texas was an early adopter of the Good Neighbor Authority and continues to work with our federal partners to restore healthy forests on our Texas National Forests and Grasslands through both prescribed fire and forest thinning.

Questions from The Honorable Richard Hudson

- 1. In your testimony you say that “our forests are currently more fire-prone than ever.” Why is this the case? How did we get to the point where our forests are at such high risk of fire? Are there any regulations inhibiting the ability to lower our forests risks-of fire?**

As I stated in my written testimony, our nation’s forests are indeed currently more fire-prone than ever. Fire is a natural phenomenon for nearly every forest ecosystem in this country. It has shaped the occurrence and distribution of different ecosystems for centuries, simultaneously impacting the human and natural communities that live in and around those forests. However, over the past century, a culture of fire suppression has unfortunately removed the natural role of fire from the public consciousness to varying degrees in different regions. When combined with a reduced level of forest management in many areas of the country this culture has also led to the build-up of hazardous fuels and unhealthy forests to historic levels.

Of these two factors, the level of forest management is more easily addressed through policy and regulation. As discussed at the hearing, prescribed fire and active forest management are both key tools to lowering fire risk. National Environmental Policy Act (NEPA) processes and regulations have taken on an increasingly cumbersome role for federal land managers in the past three decades, straying far from the original intent of the law and delaying good and necessary forest management work that would also reduce fire risk.

Air quality regulations relative to prescribed burning can also play a role in inhibiting prescribed fire that would otherwise reduce wildfire risk. At both the federal level through the EPA, as well as at the state level, regulations need to be flexible enough to recognize that allowing smoke now in lieu of a lot of smoke later is a good policy outcome.