



## Fire!

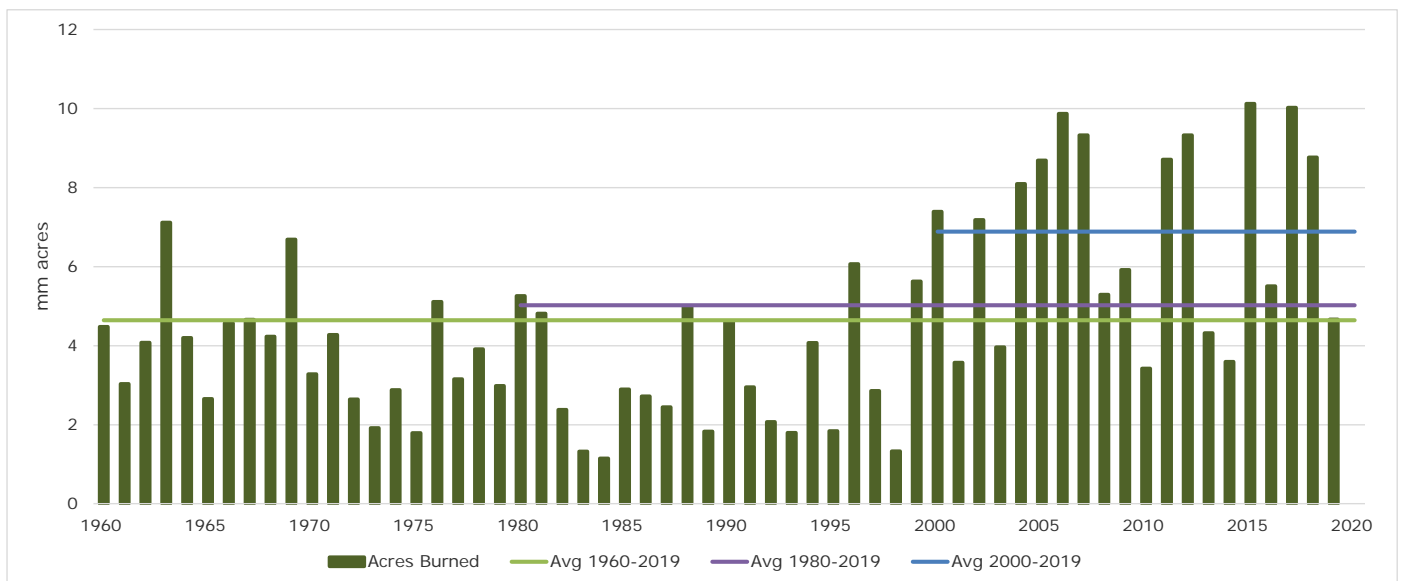


The very first issue of Forest Research Notes in the first quarter of 2004 looked at fire and its impact on timberland in the United States. Seventeen years' worth of data have been published since then.

Those seventeen years have not been good for US wildlands. Figure 1 shows the total acres of *wildland*

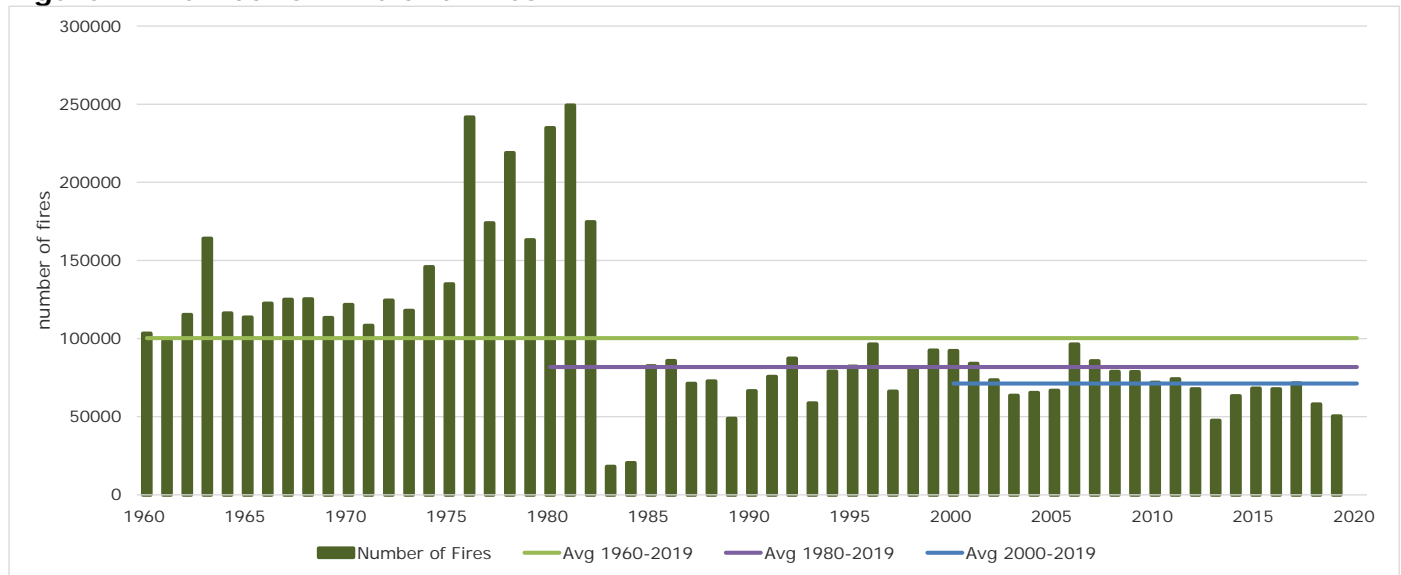
acres burned since 1960. (Some of this land is timberland.) It clearly shows an increase in acres burned after 1999. Before then, there were only 3 years with over 6 million acres (nearly 2.5 mm hectares) burned, but there have been 11 years in the 2000s, and nearly a 12<sup>th</sup> in 2009.

**Figure 1. Wildland Acres Burned**



Source: National Interagency Fire Center

**Figure 2. Number of Wildland Fires**



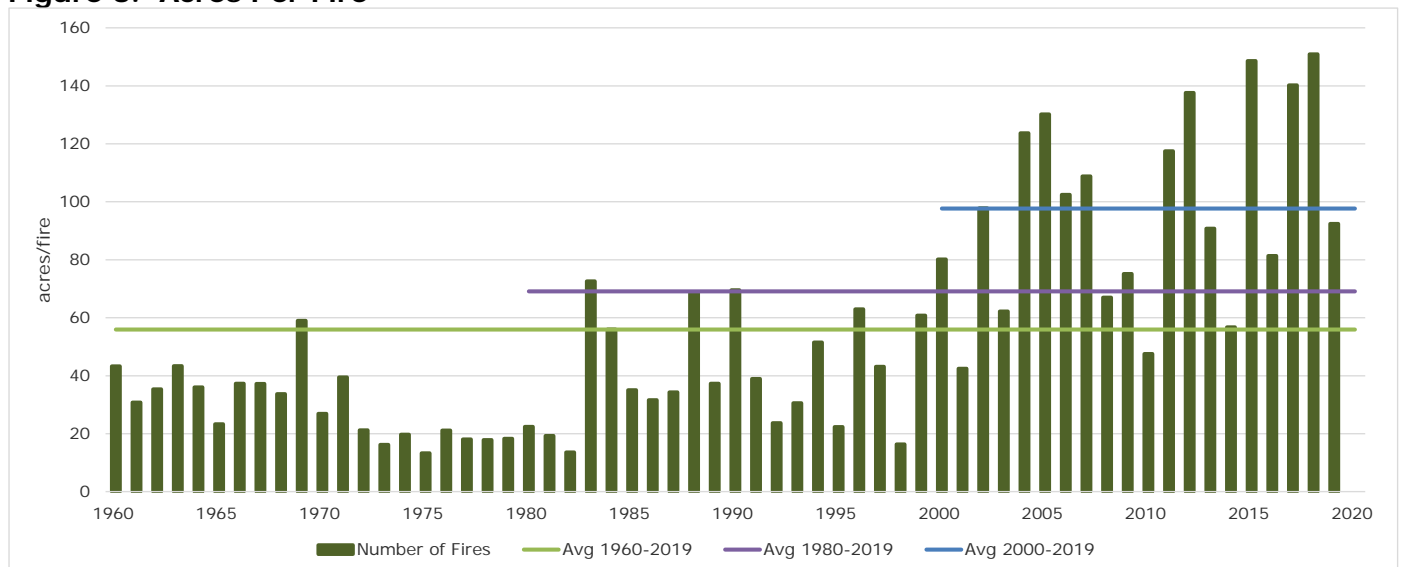
Source: National Interagency Fire Center

While the number of acres burned is up, the number of fires is down and decreasing steadily from a recent high of nearly 100,000 fires in 2006 (Figure 2). More acres burned and fewer fires means larger fires (Figure 3).

The long-term (1960-2019) average fire size has been just under 60 acres, but the average fire over the past 19 years increased to just under 100 acres. This acres-per-fire number includes thousands of fires under 10 acres each year and one or (usually) more that are over 100,000 acres. Georgia and

Florida suffered a 560,000-acre fire in 2007 after a multi-year drought in the region, but most of the big fires occur in the dry interior West and California (which is mostly dry). Even the wetter parts of the West can have bad years. The picture at the top of the first page was taken from an airplane descending into Portland, Oregon in mid-September of 2017. You can see the early morning mist in the Cascade Range valleys between Mt Hood in the foreground and Mt Jefferson in the distance. Except this picture was taken shortly after noon, so that can't be early morning mist.

**Figure 3. Acres Per Fire**



Source: National Interagency Fire Center

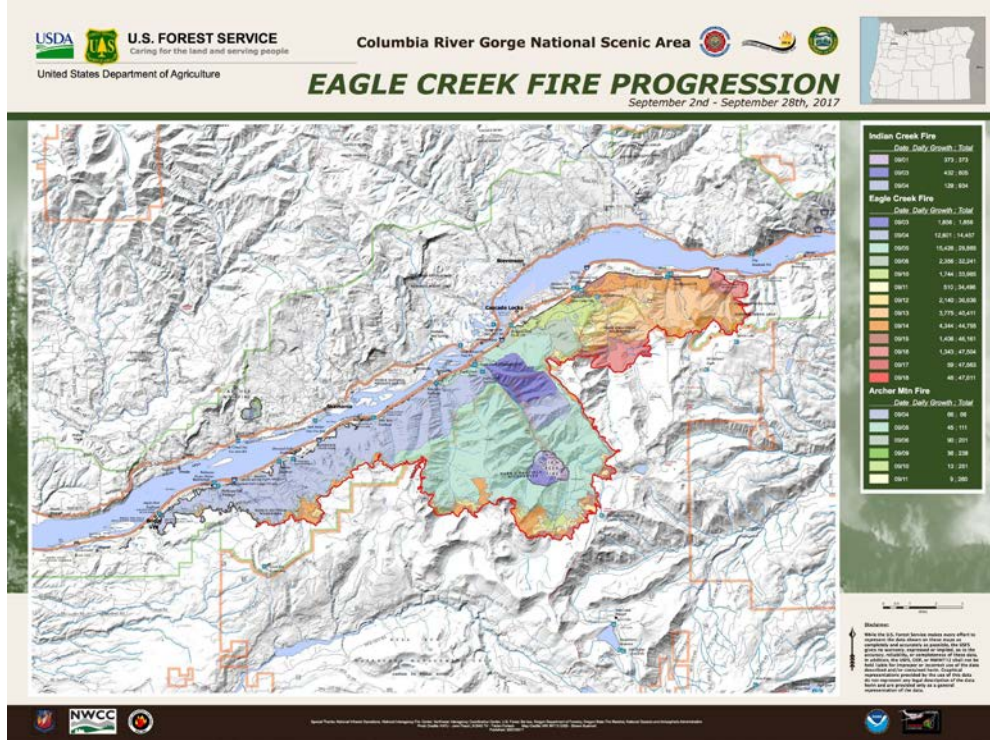
**Figure 4. Fire in the Cascades**



Figure 4 shows where the “mist” was coming from. This was part of the Eagle Creek Fire in the Columbia River Gorge. That fire was started on September 2 by a 15-year-old boy throwing firecrackers into the woods in the Gorge. It burned

nearly 49,000 acres (Figure 5), took until the end of November and an estimated \$20 million to contain. The region had experienced a wet Spring followed by two and a half months without any rain at all.

**Figure 5. Eagle Creek Fire**



Source: [https://www.fs.usda.gov/Internet/FSE\\_MEDIA/fsprd600996.jpeg](https://www.fs.usda.gov/Internet/FSE_MEDIA/fsprd600996.jpeg)

**Figure 6. One Year After a Fire Near Jasper, Texas**



*Source: Forest Research Group*

### **Aftermath**

As we noted in Vol 1 No1, fires do not turn a forest to a pile of ash, nor do they kill all the trees. Figure 5 shows an area in East Texas that had burned in 2011. Many of these young pines survived. The bark is charred and some of the lower branches were killed, but the trees are still alive.



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Jack Lutz, PhD  
Forest Economist  
Forest Research Group  
78 Stoneybrook Way  
Hermon, ME 04401  
207-605-0037  
207-717-5858 cell

[jlutz@forestresearchgroup.com](mailto:jlutz@forestresearchgroup.com)  
[www.forestresearchgroup.com](http://www.forestresearchgroup.com)