

Wildfire and Forest Roads



Roads Increase Wildfires, Change Burn Behavior & Cause Damage

Background

The U.S. Forest Service:

- Manages 193 million acres and over 370,000 miles of roads.
- The 5-yr average cost spent on fire suppression is \$1,956,295,500. *
- People cause an average of 60,467 wildfires each year, amounting to 2.7 million acres. *
- Lighting causes 9,753 wildfires annually, amounting to 2.2 million acres (excluding Alaska). *

(*See-https://www.nifc.gov/fireInfo/fireInfo_statistics.html)

Forests evolved with wildfires and they serve a crucial ecological role, yet the Forest Service spends millions on suppression, while ignoring the role roads play in human-caused ignitions, burn severity and post-fire ecological recovery.

Forest Roads Increase Wildfires

- A review of 1.5 million fire records over 20 years found human-caused fires were responsible for 84% of wildfires and 44% of the total area burned.
- Road density has been linked with increases in human-caused wildfires, as the density of roads increases so does the number of fire ignitions.
- Roads change microclimates far into the forest which increases wildfire risks by making areas dryer, hotter and windier.
- An increase in lightning-caused fires in roaded areas may be due to roadside edge effects.
- Roaded areas create a distinct fire fuels profile which may influence ignition risk and burn severity.





Logging and Prescribed Burning Will Not Stop Wildfires

Ecological Impacts

- Forest roads can change where and when fires burn, which harms ecological communities.
- After a wildfire, roads are susceptible to erosion and catastrophic culvert failures, which delivers sediment to streams and reduces the quality of aquatic habitat.
- Post-burn roads are prone to noxious weed invasions.
- After a wildfire, roads that were previously well vegetated often burn or are bladed for fire suppression access or firebreaks, which reduces wildlife habitat security for at-risk and big game species.
- Heavily roaded watersheds typically have received intensive management in the past leaving forests in a condition of high fire vulnerability.

For additional details and references see our report:
<https://guardiansaction.org/roads-lit-review>

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Wildfire Management Fiction

The Forest Service's main approaches to stopping wildfires is logging and fire suppression, even though experts agree such actions are ineffective and may even increase burn severity. In order to implement this failed management approach the agency relies on forest roads, which is why officials only consider them as a benefit while ignoring their role in contributing to wildfire ignitions and severity. Typically, the Forest Service "treats" forests by thinning tree density and creating large openings (i.e. clearcuts) followed by prescribed fire, claiming that such actions mimic nature. However, one can see evidence of this failed approach in the ashes of treated areas.

The best way to manage wildfires is by allowing them to play their natural ecological role wherever possible, strategically reintroducing fire through prescribed burns, and helping people create defensible space around their homes and property. At the same time, the agency can reduce human-caused wildfires by removing unneeded roads, which will also create larger tracts of intact forests that tend to burn in patches of varying severities. Ultimately, the Forest Service must abandon the idea that it can mimic nature and focus on ReWilding forests through true restoration.



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