

# Increasing wildfire awareness and reducing human-caused ignitions in Northern New Mexico

## SUMMARY

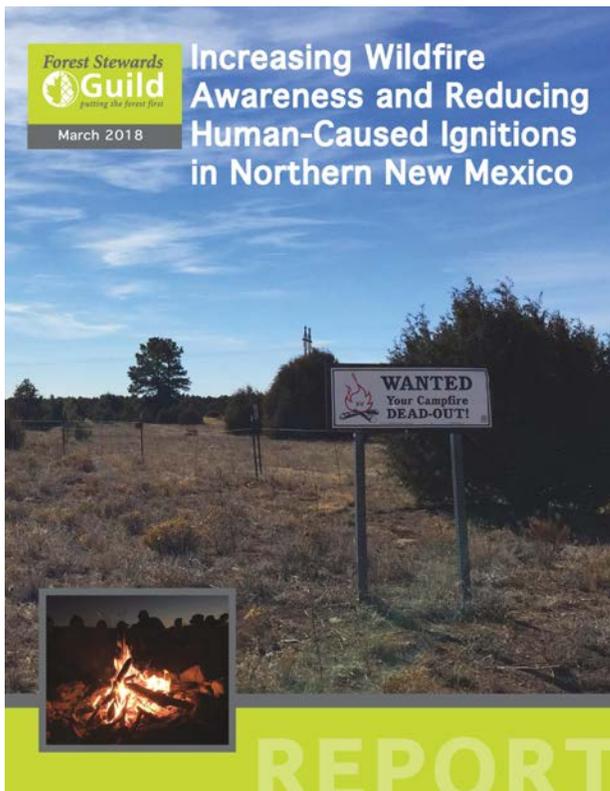
Large, high severity wildfires are now a common occurrence in the forests of northern New Mexico. These wildfires burn through forests that are not adapted to high-severity fire and can devastate ecosystems and human communities. For example, the Las Conchas Fire of 2011 burned across 156,593 acres, caused severe flooding, and converted ponderosa pine forests to shrub fields, perhaps forever. Although lightning causes many wildfires in the Southwest, human ignitions are a significant risk. Since human ignitions are preventable, raising education and awareness could be the key to reducing the number of large wildfires.

People start wildfires with their vehicles, cigarette butts, campfires, fireworks, debris burning, powerlines, arson, and other activities. This study was designed help support wildfire prevention by better understanding how people start wildfires, common locations of human-caused wildfires, existing public awareness campaigns, and current investments in public awareness of wildfire.



### Key findings from the report

- Abandoned campfires account for 44% of the human-caused wildfires since 2001.
  - *Campfire bans have limited effectiveness because campfires are particularly important to people recreating in the forest.*
- Electrical power lines are a significant cause of wildfires. In New Mexico, three major wildfires in the last decade were all caused by electrical lines, including the Las Conchas fire, which cost more than one billion dollars.
- More knowledge about the spatial patterns of human ignitions presents the opportunity for targeted outreach and education, which is a cost-effective way to reduce wildfire impacts.
  - *In New Mexico 80 percent of wildfires started by campfires are within a quarter mile of a road.*
  - *Hotspot modeling to identify areas of high arson potential can help law enforcement reduce wildfire threats.*
- Currently, federal agency budgets for prevention programs do not reflect their importance.
  - *The National Wildfire Prevention Program only has an annual budget of \$95,000 and one full-time staff person to help coordinate national awareness efforts.*
  - *Research has shown that the savings from the reduction in wildfire damages can be as much as 35 times greater than the cost of prevention education.*
- Public awareness campaigns, such as Smokey Bear and the more recent One Less Spark, seek to change behaviors, but there is little information about their effectiveness.
  - *The most recent investigation into the effectiveness of wildfire prevention signs was more than 40 years ago.*



## Opportunities

The tremendous cost of large, high-severity wildfires justifies much greater investment in prevention. No single solution will prevent all human ignitions, but incremental steps can make a difference. Avoiding wildfire costs and damages could justify replacing some electrical lines through forests with solar panels. Prevention education that reduces wildfires caused by escaped campfires, juveniles, smoking, and equipment are a great investment because it has been shown to reduce wildfire.

Another opportunity is to increase the integration of prevention messaging in programs such as Firewise that focus on homeowners in the wildland-urban interface (WUI) and Fire Adapted Communities that include the many facets of communities' relationship to fire. Linking human-caused ignitions to the risk WUI residents face could help build a strong group of advocates for wildfire prevention and reduce the high costs of wildfire suppression. Since people cause wildfires, we also have the power to prevent them.



## RESOURCES

- Fire Adapted Communities [www.facnm.org](http://www.facnm.org)
- One Less Spark Campaign [www.nmfireinfo.com/links/outdoor-fire-safety/one-less-spark](http://www.nmfireinfo.com/links/outdoor-fire-safety/one-less-spark)
- Ready, Set, Go! [www.readyforwildfire.org/Ready-Set-Go-Campaign/](http://www.readyforwildfire.org/Ready-Set-Go-Campaign/)
- Current fire restrictions [www.firerestrictions.us/nm/](http://www.firerestrictions.us/nm/)
- Statistics on human-caused wildfires [www.nifc.gov/fireInfo/fireInfo\\_stats\\_human.html](http://www.nifc.gov/fireInfo/fireInfo_stats_human.html)

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