

Angeles National Forest Monitoring

Are we meeting our goals?

SNAPSHOT

State of the Forest

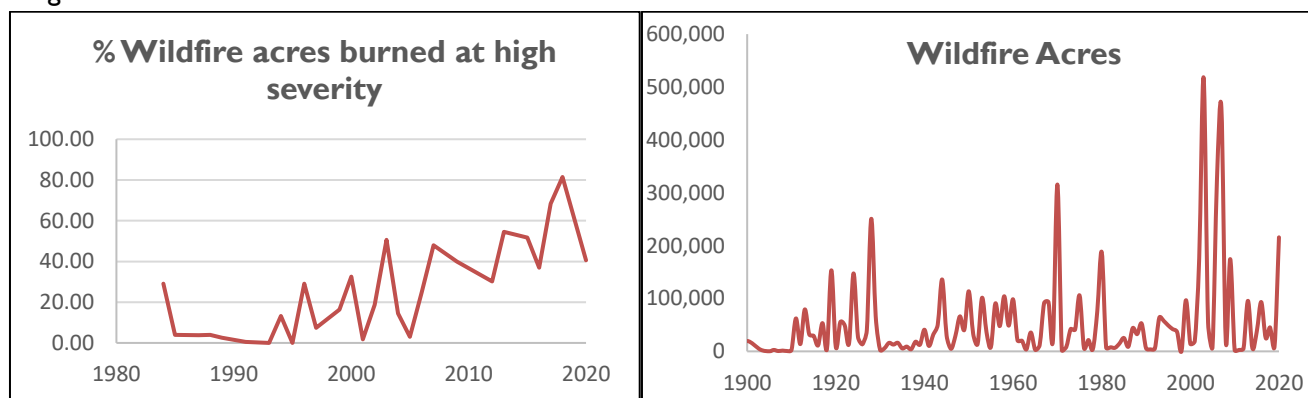
In 2019 and 2020, the Angeles National Forest faced a global pandemic, regional closures, and statewide prolonged and intense wildfires. Despite these challenges, we continued to protect our communities and the incredible ecosystem diversity of our Forest, and to deliver culturally and economically important resources. We also evaluated trends in our important public resources. Here are some important findings:

- During 2019 and 2020, we continued to prioritize community protection. We conducted nearly 9,000 acres of fuel reduction treatments in our Wildland Urban Interface.
- Wildfire size is fluctuating, fire severity in our forested landscapes is increasing, and fires can occur in any month of the year.
- Fire-adapted ecosystems are outside the range of natural fire frequencies. Two thirds of our montane conifer forests are burning less frequently than they would historically. Nearly half of our shrub and chaparral communities and 80% of our desert-associated communities are burning more frequently than they would historically.
- Our forests are feeling the effects of climate change. Conifer tree mortality peaked in 2015 and 2017, coinciding with the period of extreme drought.

Summary of Key Monitoring Results

Wildfire

Since the turn of the 20th century, wildfire size has fluctuated on our Forest and our neighboring Forests (Angeles and San Bernardino). The percent of wildfires burning at high severity, where over 75% of our live tree volumes are killed, has been increasing. Fires have burned in every month. Peak wildfire months are July and August, but the largest fires occur in the autumn when we experience extreme wind events. Wildfire frequency and seasonality are projected to increase with climate change.



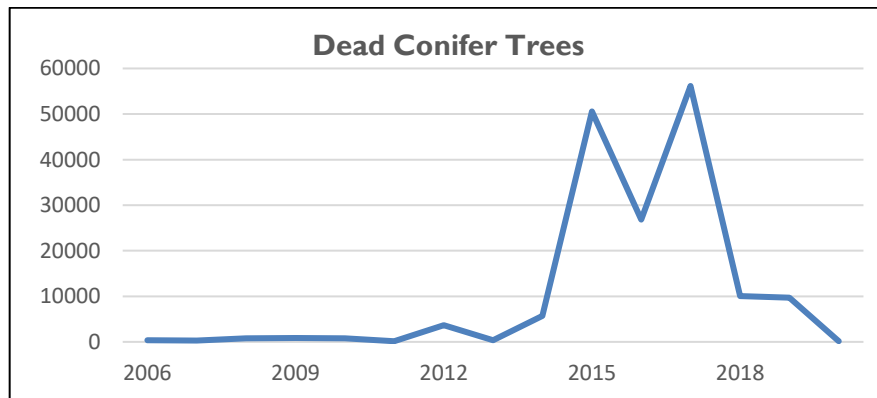
Status of Fire-Adapted Ecosystems

Our montane conifer forests are accustomed to frequent, low severity fires. Since 2006 when our Land Management Plan was signed, we have seen an increase (20% to 35%) in the proportion of our forested landscape experiencing frequent, low severity fires. Despite this success, two thirds of this ecosystem type is burning much less frequently than historically. These areas may have altered ecological conditions like a build-up of fuels and risk losing key ecosystem components. About 80% of our fuel reduction treatments in montane conifer forests target these areas burning much less frequently to help reduce fuels, restore structure, and mimic natural disturbance.

Shrub and chaparral ecosystems have historically experienced stand-replacing fires infrequently (35 – 100+ years). Since 2006 when our Land Management Plan was signed, we have seen an increase (40% to 50%) in the proportion of shrub and chaparral communities burning within this natural fire interval. Despite this positive trend, 50% of these communities remain departed, burning more frequently than we would expect naturally.

Tree Mortality

Conifer tree mortality peaked in 2015 and 2017, coinciding with the drought period. We lost an estimated 50,000-55,000 trees in each peak year. Jeffrey and ponderosa pine mortality peaked in 2015 and white fir mortality lagged with a peak in 2017. As drought is expected to increase over time due to climate change, there will be an increasing trend in either gradual or drought-induced mortality.



Community Protection

A desired condition of our 2006 Land Management Plan is to have vegetation treated to enhance community protection and reduce the risk of loss of human life, structures, improvements, and natural resources from wildland fire and subsequent floods. During 2019 and 2020, we conducted 8,900 acres of fuel reduction treatments in our Wildland Urban Interface, with over 8,500 acres in the WUI defense and threat zones, the areas closest to our communities. Our primary treatments included thinning to reduce hazardous fuels, selective tree falling/removal, creating piles and rearranging the understory structure of thinned and slash material, removing fuels from sites, burning piles, and broadcast burning.