



Angeles National Forest

Summary of monitoring results from 2021–2022

Are we meeting our goals?

The Angeles National Forest—a vast area of mountains, trails, and creeks—makes up almost three-quarters of Los Angeles County’s open space. Southern California is home to 25 million people and has the nation’s highest concentration of high-risk firesheds. Large areas of southern California are experiencing wildfire at higher frequencies than what was the norm before European settlement, making the urgency of forest management and fuels reduction even more pressing. The southern California landscape has been selected as a U.S. Forest Service [Wildfire Crisis Strategy \(WCS\) Priority Landscape](#) which will facilitate an increase in the pace and scale of treatments.

- The forest conducted about 9,000 activity acres of fuels treatments on about 4,500 footprint acres from 2021–2022. Activity acres are the total acres of treatment regardless of geographic overlap. Footprint acres are the geographic area of treatment activities.
- When compared to presettlement conditions, large areas in southern California are burning at higher frequencies due to human-caused ignitions—half of our shrublands and chaparral ecosystems are burning more frequently than under historical conditions.
- Wildfire acres burned and insect and disease-related conifer mortality were lower this monitoring period than previously.
- The Angeles NF treated nearly 700 acres of invasive plants during the 2021–2022 monitoring period.
- Stream flows in 2021 were relatively low but close to median levels in 2022.
- Ongoing targeted removal of invasive weeds and trash is important to improve stream and riparian habitat conditions.

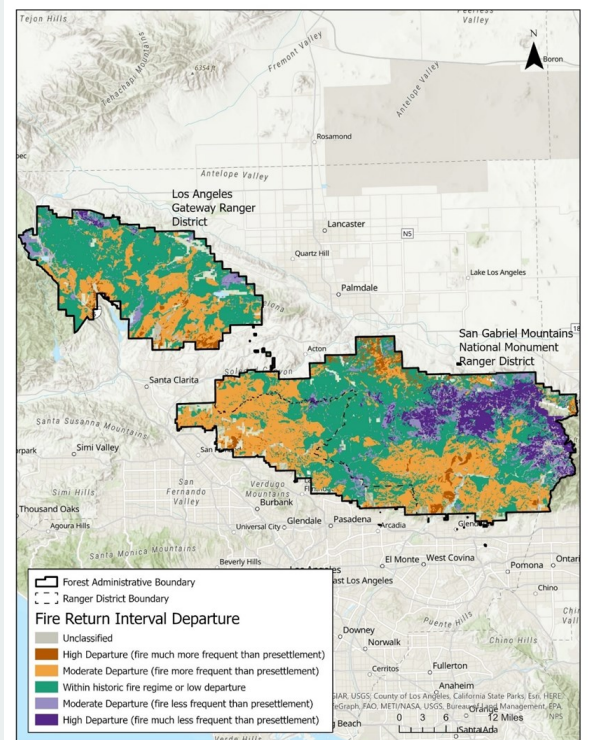
Summary of monitoring results

Community protection and fire regime change

The Angeles conducted fewer fuel reduction treatments in 2020, during the onset of the pandemic, but has been steadily increasing treatments — we treated over 2,000 footprint acres in both 2021 and 2022. The most common fuel reduction treatments were invasive control using pesticides, creating and burning piles, and thinning for hazardous fuel reduction.

Roughly half of the shrubland and chaparral ecosystems on the Angeles are burning more frequently than under presettlement conditions (orange and red colors in figure on right) — and 80 percent of desert scrub is burning with far greater frequency than historically. Frequent fire in shrublands can lead to type-conversion from native woody species to non-native highly flammable grasses.

Conversely, 64 percent of montane conifer forests are burning less frequently compared to historical fire frequencies (purple colors in figure on right). In the absence of regular, low intensity wildfires, these areas become less resilient to wildfire, insects and disease, and drought. The forest is emphasizing treatments in these areas to reduce fuels and restore resilience.



Invasive species

Non-native invasive grass cover has been increasing, driven by precipitation and drought, although the total percentage remains low.

Both ranger districts of the Angeles NF treated nearly 700 acres of invasive plants during the 2021-2022 monitoring period—fewer acres than during the previous monitoring period. Treatment areas included Big Tujunga Creek, San Francisquito Canyon, and San Gabriel River which provide critical habitat for special status species

Invasive species treated in 2021–2022

- Spanish broom
- Sweetclover
- Saltcedar
- Prickly Russian thistle
- Giant reed
- Soft brome
- Tall tumbleweed
- Shortpod mustard
- Compact brome
- Tree of heaven

Mineral and Energy Development

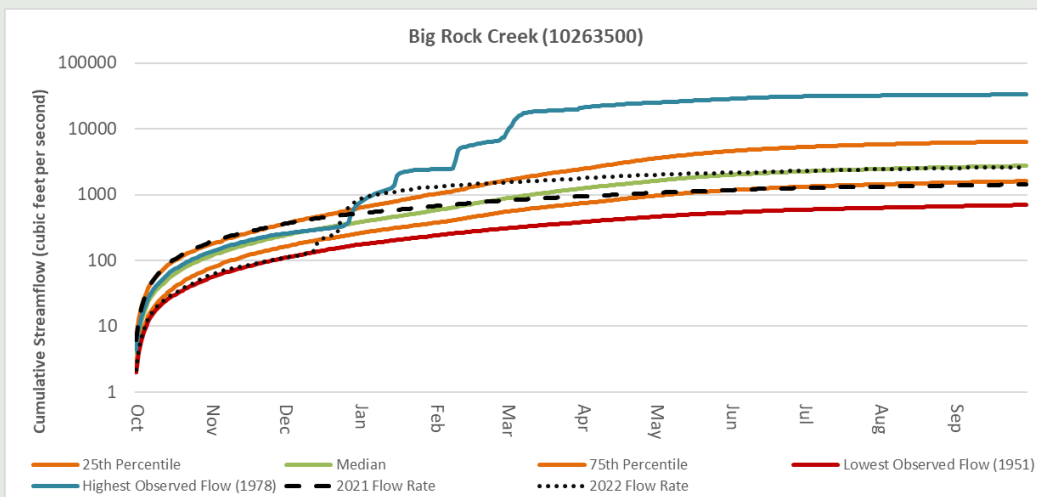
The Vulcan Mine has actively transitioned to reclamation phase. The Forest has approved reclamation plans for 2 of 4 mined areas. Due to the significant portion of the forest that is withdrawn from mineral uses, no new mining authorizations have been issued or are anticipated.

Watershed and riparian function

Targeted removal of invasive species and trash has improved watershed conditions but pressure from these disturbance-causing agents persists. Heavy precipitation in 2022 contributed to flooding, erosion, sedimentation, and damage to roads, trails, and culverts.

Working with the National Fish and Wildlife Foundation, the Angeles NF plans to restore stream and riparian habitat in San Francisquito Creek.

Stream flows on Arroyo Seco and Big Rock Creek on the Angeles NF experienced relatively low flows in 2021 but were around median levels in 2022.



Habitat conditions

Drought conditions continued to stress wildlife, particularly riparian and aquatic species. Removal of invasive weeds and trash improved habitats including in stream and riparian areas. However, sediment removal projects in the San Gabriel Reservoir involved the removal and some mortality of Santa Ana Sucker.

The Angeles restored native habitats in burned areas of Powerhouse, Copper, and Sayre fire scars including restoration in riparian areas, native conifer planting, and milkweed and perennial grass seeding. Two special status plants, slender mariposa lily and Nevin's barberry, were targeted during post-fire restoration efforts. Barriers were also placed to prevent off-route OHV use in post-fire areas.

Species-specific occupancy and population trends appear stable for some species like California condor and unarmored threespine stickleback, potentially declining for species like arroyo toad, mountain yellow-legged frog, and California red-legged frog, and uncertain for others.