

Mono Winds Cause Tree Damage in Yosemite National Park.

Mono winds occur when a high pressure airmass settles over the Great Basin with a trough of low pressure sittings near the coast. In a typical Mono Wind event, winds reach speeds of 50 mph while stronger events can see winds exceed 100 mph! Mono winds are common between October and April, and frequency peaks in December and January when colder, more dense air is most common.

While the broad area affected by Mono Winds is along the western slopes of the central Sierra Nevada, including the Stanislaus National Forest to the North, and the Sierra National Forest to the south, they are most common within Yosemite National Park. Interesting, due to the localized effects of terrain channeling these winds, they can often affect one area tremendously and barely impact another area just a few hundred feet away.

A significant Mono Wind event occurred in Yosemite National Park on January 19, 2021. Strong winds caused damage to facilities throughout the park, but especially in the southern area of the park near Wawona. Within the Mariposa Gove of Giant Sequoias, at least 15 mature giant sequoias fell. Thousands of other trees, both live and dead fell throughout Yosemite National Park and on the Stanislaus and Sierra National Forests.



Building in Wawona damaged by trees that fell during Mono winds on January 19, 2021 (Photo: National Park Service)

One of the challenges facing firefighters on the Washburn Fire is the volume of large dead trees in the fire area. While the drought and bark beetles of 2015 and 2016 created large amounts of dead trees, another event, a Mono Wind event, created another challenge. Creating firebreaks in tangled windfall trees is difficult, time-consuming work. Fire suppression in this tangled mess also results in significant efforts to search and destroy every ember that could flame up and cross the fireline.