

CAL FIRE & THE GIANT SEQUOIA: REFORESTING & REVIVING NATURE'S GRANDEUR

Amidst the daunting challenges of post fire reforestation and climate change, Mountain Home Demonstration Forest (MHDSF) and CAL FIRE's part in the wider effort to protect and reforest giant sequoia offers a ray of hope. Located in Tulare County, California and nestled in the heart of California Sierra Nevada foothills, MHDSF is a forested sanctuary witnessing a revival, thanks to the efforts of CAL FIRE.

The landscape at MHDSF was radically affected by the 2020 Castle Fire. Approximately 40 per cent of the forest was subject to intense fire (see map below). Of the 4,750 old growth giant sequoia (OGGS) within Mountain Home, 349 perished. The current mortality rate of OGGS within the forest is approximately 7.2 percent, much lower than the 13 to 19 percent of the world's large sequoias that are estimated to have died in the Castle Fire, the KNP Complex and Windy fires combined, or 8,431 to 11,897 trees.

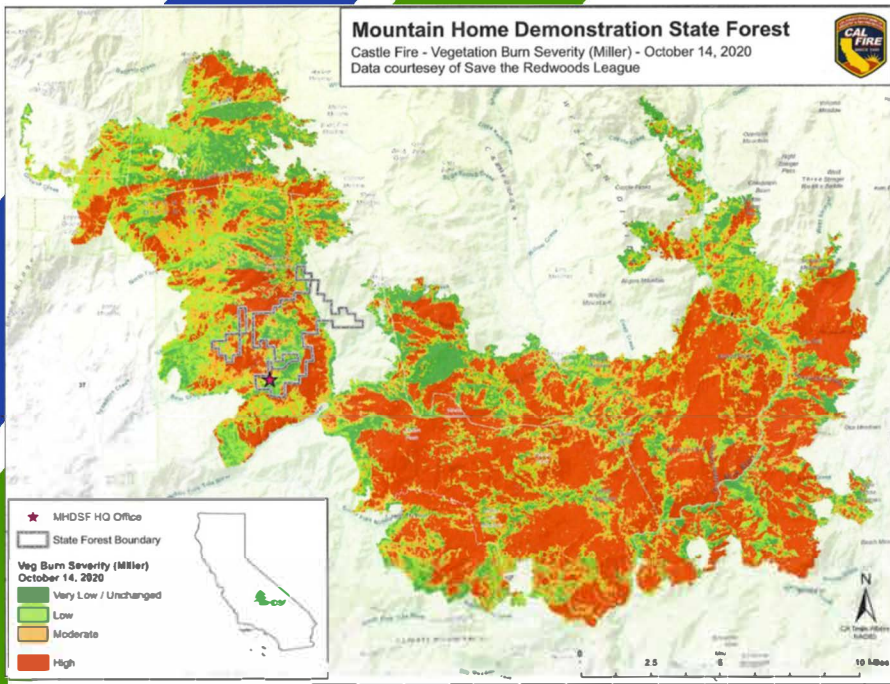
Since these catastrophic events of 2020, CAL FIRE has been dedicated to reforestation efforts in Mountain Home. In 2021 and 2022, [CAL FIRE replanted over 200,000 seedlings at MHDSF, including 25,000 sequoia seedlings.](#) Road improvements, hazard tree mitigation, erosion control, and site preparation were done as part of salvage logging activities.

CAL FIRE's giant sequoia reforestation efforts do not end at Mountain Home though. While this may be the only area of land with OGGS that CAL FIRE directly manages, the Department has formed an integral part of the cooperative effort to reforest these stunning trees post-Castle Fire.

Since 2020, CAL FIRE's L.A. Moran Reforestation Center (LAMRC) has produced and distributed over 43,000 giant sequoia seedlings in the Southern Sierra to both private ownership and MHDSF. LAMRC can produce approximately 3 million more giant sequoia seedlings from its inventory currently stored in the state's seed bank. Additionally, private sector inventory can produce approximately 7.2 million seedlings.

The Adam Tree at MHDSF is the 21st largest giant sequoia on earth by trunk volume. It sustained fire damage during the 2020 Castle Fire.





Furthermore, CAL FIRE is an active member in the Giant Sequoia Lands Coalition (GSLC), which is an organized collaboration of public and non-governmental organizations with a shared commitment aimed at the conservation of giant sequoia grove ecosystems. The GSLC coalition is comprised of all federal, tribal, state, local agencies and organizations that manage giant sequoia groves in public, tribal or private non-profit ownership. The coordinated efforts of the GSLC represent a shared

commitment to protect giant sequoias and their ecosystems from emerging threats associated with climate change and the extended absence of natural, low severity wildfire processes on the landscape.

CAL FIRE's Forest Health grants programs also continue to support giant sequoia replanting and resilience. Forest Health grants have provided over \$12 million of funding over the past five years for projects pertaining to safeguarding giant sequoias and reforestation. These projects include protecting the Mariposa Grove project, which will reduce fuels and help firefighters protect invaluable trees. This project and its previous phases helped to protect OGGs in Yosemite National Park during the 2022 Washburn Fire by providing ingress and egress routes for firefighters.



Reforestation and salvage operations underway at MHDSF in the spring of 2021. The small flags in the foreground show the locations of seedlings.

Another example of Forest Health grants at work is the \$2.4 million that the Save the Redwoods League Giant Sequoia Forest Resilience Project in Calaveras and Tuolumne received in 2018. This project will increase carbon sequestration storage potential, augment climate change and fire resilience, enhance critical habitat, and improve water quality in the Calaveras Big Trees State Park and Beaver Creek - an adjacent Save the Redwoods League property.



Looking ahead, CAL FIRE remains committed to nurturing and expanding giant sequoia reforestation efforts at MHDSF and across the Sierra. CAL FIRE's vision extends far beyond the boundaries of this forest, acting as a catalyst for statewide reforestation initiatives and instilling hope for a more resilient and sustainable future for California's forests.



A healthy giant sequoia at MHDSF in the early 2023 snow.