



The multiple tragedies during the siege represent a devastating blow to the firefighting community.

Epilogue

This document is a chronicle of an extraordinary fire event and the exceptional response of thousands of dedicated fire fighters. While this treatment of the 2008 June Fire Siege ends on August 5, the fire season certainly did not. This was still the middle of the typical fire season for the western United States. Several of the siege fires continued to burn well into the late summer and some were not declared fully contained until the fall. There were additional periods of extreme fire behavior and rapid-fire growth, with tens of thousands of additional acres that burned after August 5. There was an additional fire fighter fatality as 77 year old Curtis Hillman, a member of the Karuk Indian Tribe, died on September 11 from head injuries sustained August 25 while operating a road grader on the Six Rivers National Forest. The siege itself ended simply because successful fire suppression efforts greatly reduced the number of active fires and the ongoing fire fighting efforts became more typical of peak fire season.

The great number of fires that started with the June 20 and 21 lightning storms was certainly atypical, but it was probably not completely unprecedented. Fire history records from tree rings do show that there have been years when widespread fire occurred throughout the state. Both the initial attack and ongoing fire fighting efforts were extraordinarily effective, given the limited resources that were available to manage an extraordinarily complex fire situation. If the fire suppression efforts had not been waged, the resulting area burned would have been dramatically different. There is little question that many of these

fires would have burned unchecked into the late fall, perhaps covering several million additional acres. The potential effect of those additional acres exemplifies the complexity of the situation facing today's fire, ecosystem and land managers.

We put out fires for a reason, and fire suppression has clear, immediate, and tangible benefits to society. The fires themselves pose a direct threat to communities and public safety. Wildfire smoke is a health hazard to many individuals and a nuisance to many more over a very large geographic area. Fires are a direct threat to forests, wildlife, habitat and watersheds. There is no question that the suppression of the hundreds of wildfires during the 2008 June Fire Siege resulted in much smaller areas burned over a much shorter time, reduced threat to communities, significantly improved in air quality, and reduced direct impacts to ecosystems.

Fire is also a natural process within most if not all of the ecosystems burned. While it is still too early to draw final conclusions, preliminary assessment of the effects of fire on the vegetation and habitats show that burn severity patterns resulting from the 2008 June Fire Siege are mostly typical of the ecosystems burned. Perhaps because the siege occurred in the early part of the fire season the fires within the forests were mostly of low to moderate severity. High severity fires mostly occurred in chaparral and other shrublands. While there is a range of effects, widespread stand replacing forest fires seem to be the exception rather than the rule.



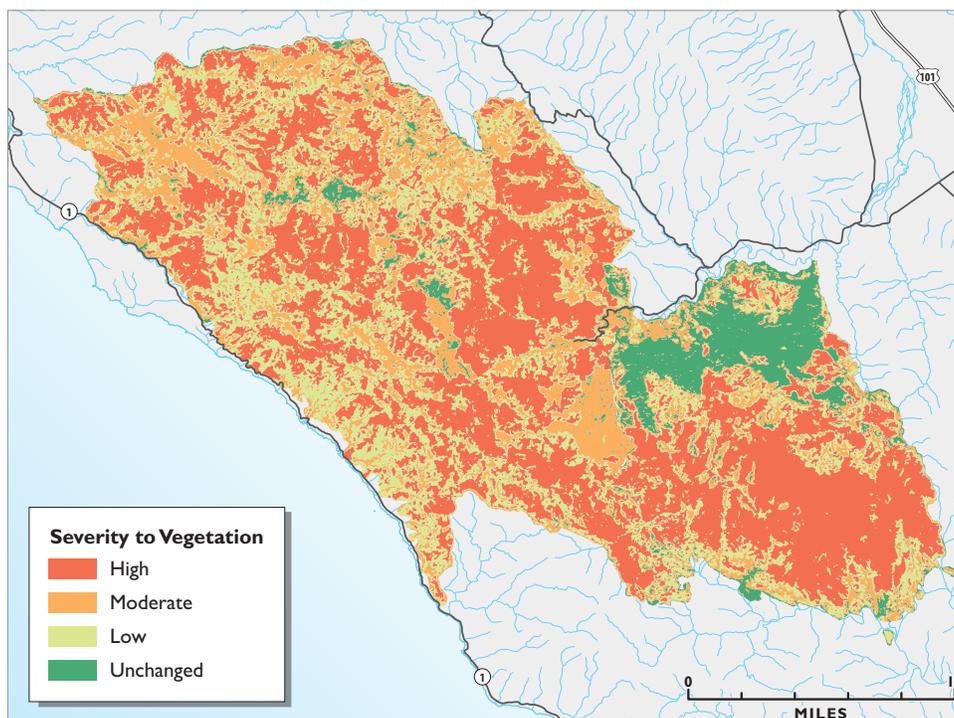
Residents throughout the state showed their appreciation.

Suppression of the 2008 June Fire Siege fires has also contributed to the exclusion of fire as a natural process on extensive wildland within California.

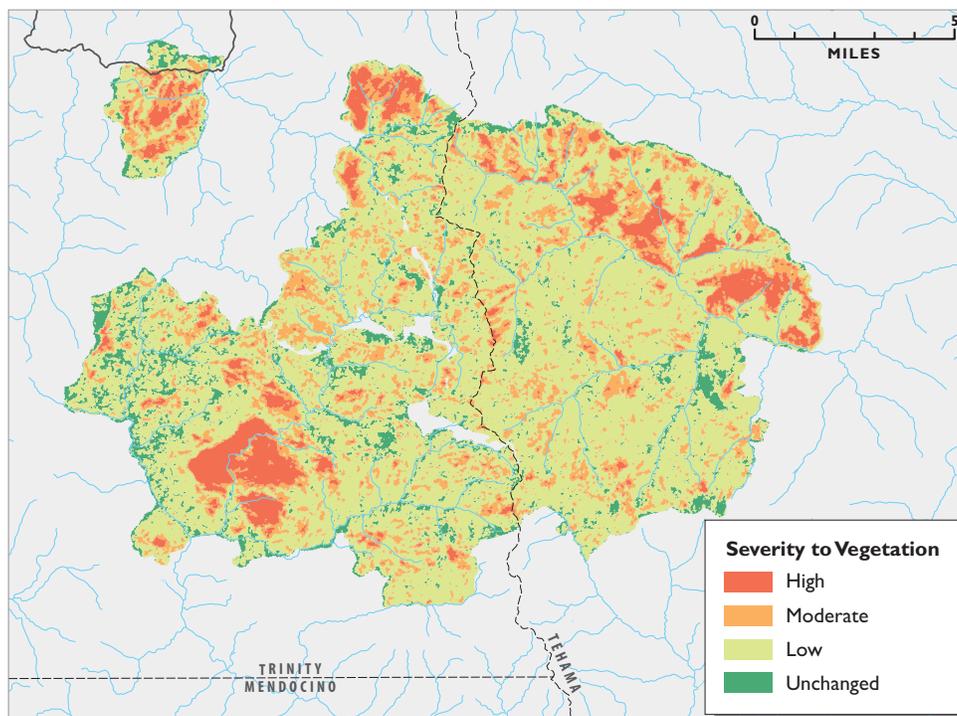
Managing fire in wildlands is complex and controversial. Fire has effects both positive and negative effects on humans and ecosystems, and balancing these effects is the goal of public and private land managers. While public safety and health are clearly the priority in management of the 2008 June Fire Siege, the suppression of wildfires also removed fire from large areas of the state where fire exclusion has caused fuel accumulations, forest densification, altered wildlife habitat, and many other impacts.

Just as there are benefits and costs to the occurrence of these fires, there are also benefits and costs from suppression of the fires. Mitigating the costs of fire exclusion by treating fuel, thinning forests, and other management activities requires large commitments of funds and resources. Similarly, the costs of wildfires that do occur require great commitment of funds, resources and impact to society and ecosystems. The 2008 June Fire Siege was a very important fire event, and the commitments and efforts of firefighters and the effects of the fires and fire suppression will be with us for decades to come.

Fire Severity: Basin Complex Indians Fire



Fire Severity: Yolla Bolly Complex



Preliminary assessments of the effects of fire on vegetation and habitats show that burn severity was often typical of the ecosystems burned. High severity fire occurred in most shrublands while many forests burned with low to moderate severity.

RESTORATION AND REHABILITATION

As fires were contained, restoration and rehabilitation efforts started. State Emergency Assessment Teams (SEATs) coordinated by the Office of Emergency Services are tasked "...to facilitate the mitigation of the effects of the fires and the environmental restoration of the affected areas." Each team was comprised of combinations of geologists, hydrologists, soil scientists, archaeologists, foresters, Geographic Information System technicians, wildlife and fisheries biologists, and civil engineers. Teams developed plans and implement actions for rapid post-fire watershed assessment and recovery operations to:

- ▶ Identify on-site and downstream threats to public health and safety from landslides, mudslides, debris torrents, flooding, damaged infrastructure (e.g. roads and bridges), and other public safety hazards resulting from the fires.
- ▶ Identify impacts and threats to: soil productivity from erosion, impaired water quality, wildlife/fisheries habitat, native plant species, and prehistoric and cultural resources.
- ▶ Develop a report and recommendations for local jurisdictions to be used to guide implementation of timely mitigation of potential impacts.

SEAT specialists conducted rapid surveys on burned areas to determine if emergency rehabilitation treatment was needed to minimize the risk of threats to life and property. These surveys were used with other relevant, reliable sources of information to assess if emergency rehabilitation treatment was needed. Each report contained data and maps to help local officials quickly identify threatened areas.

The recommendations in each SEAT report fell into one of two broad categories: treatments considered temporary (short-term) measures designed as inexpensive "quick fixes", and long-term treatments designed to facilitate the recovery of entire watersheds while minimizing the exposure of the values at risk to the threats identified.

Commonly identified threats included: increased risk of in-channel flooding; debris torrents; mudslides; landslides; and rock falls. Manmade structures such as pedestrian bridges, homes, commercial buildings, highway bridges, roads and public gathering places were identified as at risk in several locations. Many of these structures were located within the confluence of natural drainages, near areas of natural instability that were further weakened by the loss of vegetation, or predisposed to mass movement from hydrophobic soils created by the fires.

On federal lands, Burned Area Environmental Rehabilitation (BAER) teams undertook similar tasks to determine if significant emergency threats to human health and safety, or natural resources existed. As these areas were identified, plans would be implemented to alleviate emergency conditions stabilizing soil, control water, sediment, and debris movement, prevent impairment of ecosystems, and mitigating threats to life, health, property, and downstream infrastructure and natural resource values at risk. The teams were also tasked to monitor the effectiveness of the implementation measures.

Thus, even before the fires were out, work began in earnest to repair the damages caused by the fire suppression operations, to mitigate the hazards and risks associated with the fire/flood cycle, and to begin restoration of environmental quality. Additional work was quickly undertaken by private timberland owners to begin immediate salvage logging of damaged timber stands, and make repairs to logging roads and bridges.

In all cases, the SEAT and BAER teams closely coordinated efforts with each other, appropriated local agencies, and private landowners to ensure continuity of operations across property boundaries and economies of scale.



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