



Building Climate and Fire Resilience

Pepperwood's *Building Climate and Fire Resilience* initiative is focused on increasing our resilience to accelerating climate and fire hazards while maintaining or enhancing the health of our watersheds and ecosystems.

PREPARING COMMUNITIES TO FACE CLIMATE CHANGE THREATS

The impact of climate change on our natural world has emerged as the most urgent issue of our times. Warming global temperatures and changing weather patterns have given rise to unprecedented conditions—extreme heat, more intense storms, droughts, sea level rise, and catastrophic wildfires—all generated by an average increase just shy of 2° Fahrenheit. As an institution which has been directly burned by two megafires in the last three years, Pepperwood is in the trenches at the front lines of the global climate crisis.

Unless we find a path to both reversing our emissions trajectory and increasing our adaptive capacity within the next ten years, this warming trend will triple by this century's end. Threats to life and property will upend our communities and economy if we do not identify and implement effective climate and fire resilience strategies. This initiative applies a regional approach to promote resilience in Northern California and to provide models for nature-based resilience throughout Mediterranean-type ecosystems worldwide.

PRESSING NEED	KEY ACTIVITIES	OUTCOMES
<p>Recent warming trends just shy of two degrees Fahrenheit has already contributed to extreme events, including heat waves, drought, wildfire, flooding, and rising tides.</p> <p>Under business-as-usual conditions, warming is projected to triple by the end of this century, which will in turn create far more arid and fire-prone conditions in Northern California.</p> <p>We need to take action now to leverage nature-based solutions that protect communities by building resilience and reducing greenhouse gas emissions.</p>	<p>Host the Terrestrial Biodiversity Climate Change Collaborative (TBC3.org) in partnership with University of California's Rausser College of Natural Resources.</p> <p>Work with public and private land and water managers to co-produce and interpret high-resolution climate, hydrology, forest and fire data, to support next-generation real-time hazard warning systems.</p> <p>Inform regional water security and fire resilience strategies and serve as a demonstration site for post-fire watershed and ecosystem restoration and wildfire preparedness.</p>	<p>Increase the capacity of communities to take preventive action to save lives, avoid property damage, and limit liabilities.</p> <p>Ensure we have enough high-quality water available to meet the needs of both our environment and our community.</p> <p>Validate and demonstrate nature-based solutions for climate and fire resilience.</p> <p>Model a reproducible regional framework for climate and fire resilience for Mediterranean-type ecosystems worldwide.</p>