



Watershed Restoration Using Ecological Forestry

American River Conservancy (ARC): American River Headwaters Restoration Project (ARHRP) and French Meadows Collaborative Watershed Restoration

French Meadows Partnership

The 28,000-acre French Meadows Forest Restoration Project is using a collaborative, all-lands approach to restore forest health and resilience and reduce the risk of high-severity wildfire in the headwaters of the Middle Fork of the American River, a critical municipal watershed located on the Tahoe National Forest in California's Sierra Nevada.



The Partnership: is made up of the U.S. Forest Service, American River Conservancy, Placer County Water Agency, The Nature Conservancy, Sierra Nevada Conservancy, Placer County and The Sierra Nevada Research Institute at UC Merced.

Collaborative Management: The diverse partnership utilizes the individual strength of each partner to increase the project's pace and scale.

Diverse Fundraising: The partners raised funds from federal, state, local, and private sources. The partnership could access a wider range of funds than each entity alone.

Innovative Project implementation: Thinning will be conducted under a master stewardship agreement between Placer County and USFS.

Watershed Research: The Sierra Nevada Research Institute is leading research to quantify the link between forest health, thinning activities and water supply benefits.



Figure 1. Before –Unhealthy and fire suppressed, pre-thinning stand conditions at the ARHRP. 76% canopy closure and 1,333 trees per acre.



Figure 3. Before the removal of mid-story, understory and selective harvest of merchantable timber.



Figure 2. After - Ecologically managed post-thinning stand conditions at the ARHRP. 43% canopy closure and 157 Trees per acre.



Figure 4. After the removal of mid-story and understory vegetation with the selective harvest of merchantable trees to achieve optimal spacing between individual stems and create openings in the canopy. This significantly reduces the fuel load, fire intensity and the vertical transfer of fire from surface to canopy fuels. This is often the prelude to reintroducing prescribed fire and natural fire return.

Megafires and the Solution

In recent years California has seen a significant increase in large and catastrophic fires, now being referred to as megafires. Many factors contribute to this issue including history of fire suppression, excessive fuel load, past forest management and climate change.

Ecological Forestry focuses on forest health and targets smaller diameter trees and vegetation, with some selective/partial harvest of merchantable timber while leaving the healthiest and dominant trees in the stand. Thinning is then followed by **prescribed fire**. We urge policy makers to maintain and allocate funds for ecological thinning efforts and prescribed fire. Proactive management of our forests can mitigate the devastating effects of megafires on human life, health and property.



Ecologically Managed Forest

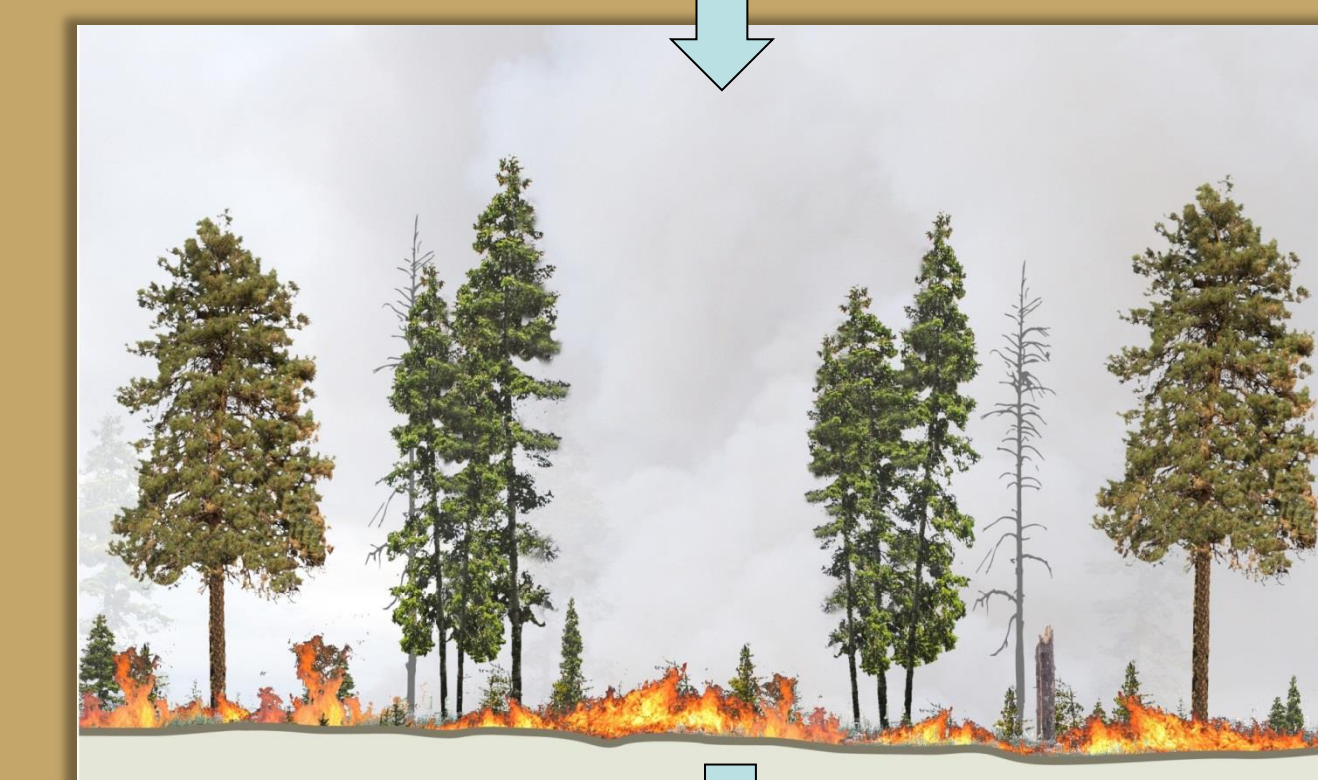


Figure 5. Ecological Thinning of the understory and mid-story vegetation can reduce fuel load so prescribed fire can be safely reintroduced. Moderate to low severity fire is a natural ecosystem process that maintains healthy forests. © Erica Simek Sloniker and TNC

Fire Suppressed –Unmanaged Forest

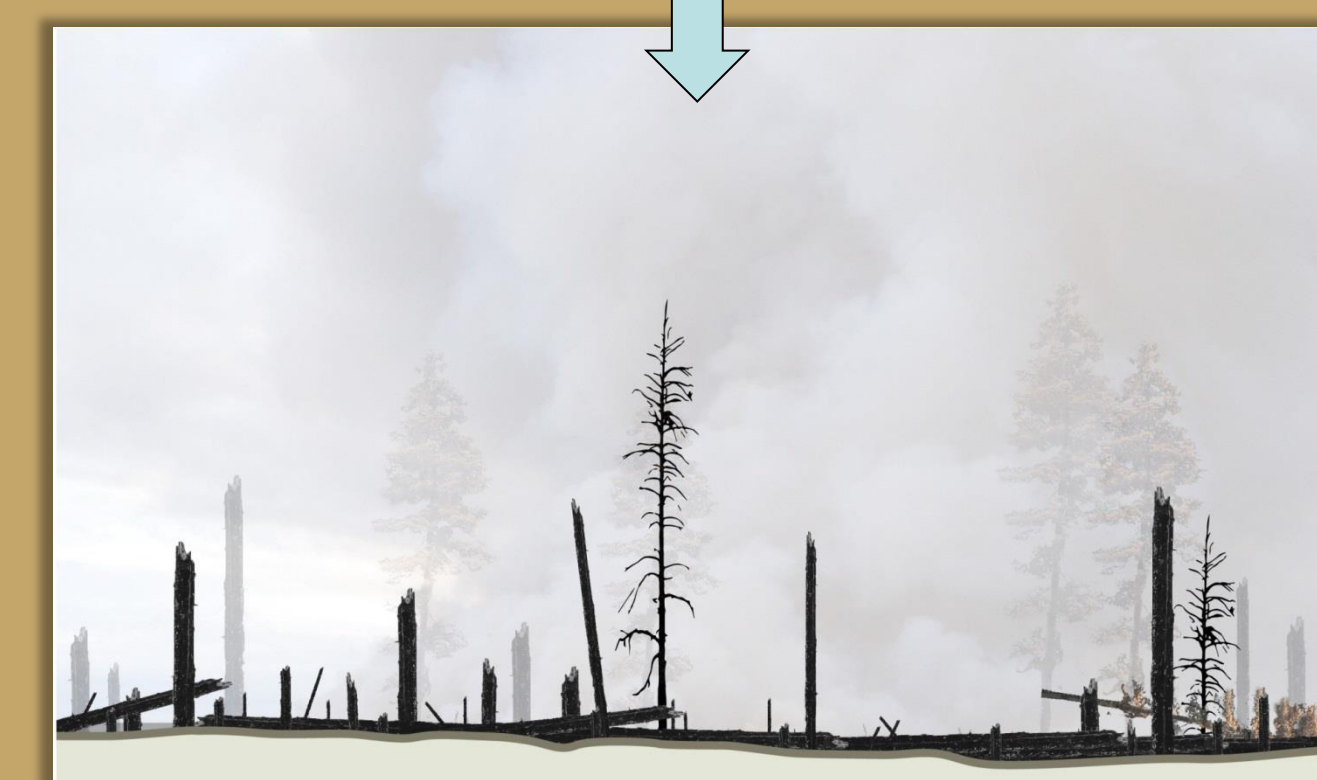


Figure 6. Unmanaged forests with decades of fire suppression and lack of management are dense in vegetation and have excessive fuel loads. These forests typically burn with high severity and have ground to canopy fire that kill most trees, even the largest fire resistant trees. © Erica Simek Sloniker and TNC

Ecological thinning, prescribed fire and managed wildfire can reduce the risk of high severity devastating megafires, protecting human life and watershed health. Ecological thinning also provides jobs using the same tools as traditional logging but with an emphasis on forest health as opposed to profit-based forest management of the past.

Autumn Gronborg
American River Conservancy
autumn@arconservancy.org
Phone: (530) 621-1224
www.arconservancy.org