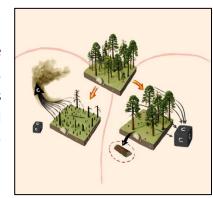
Fire Management in a Changing Climate

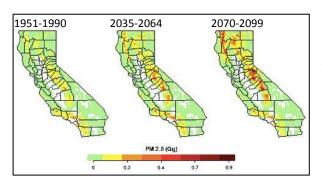
Fire suppression – A problem in dry forests

Fire suppression has altered forest structure in frequent-fire forests, such as those in the southeast and western US. Frequent fires historically kept forests more open and fuel loads low. Fire suppression has caused increased tree density and surface fuels, creating a ladder for fire to move from the surface to the canopy, leading to high-severity wildfire risk.



Thinning and burning treatments reduce wildfire risk.

Climate change – Adding fuel to the fire



Rising temperature and prolonged drought are increasing the flammability of forests. Large wildfires are projected to increase with climate change. Tree mortality, forest loss, and substantial fire emissions all pose risks to society. The projected effects of climate change on wildfire could increase emissions four-fold.

High levels of particulate matter and other emissions put society at risk.

Restoring Forests – Stabilizing Carbon

Forests help regulate the climate by storing carbon. Thinning removes carbon and prescribed fire releases carbon to the atmosphere. Yet, treatments reduce wildfire severity and tree mortality, adding stability to forest carbon. Fire is an important ecosystem process in many forests in the US. Restoring natural fire regimes reduces societal risk to large wildfires.

Treatments help stabilize forest carbon.

Matthew D. Hurteau Assistant Professor of Biology University of New Mexico Department of Biology

mhurteau@unm.edu www.hurteaulab.org