

The Path to Healthy Headwater Forests

February 11, 2021

Henry McCann

Supported with funding from the S. D. Bechtel, Jr. Foundation



PPIC

PUBLIC POLICY
INSTITUTE OF CALIFORNIA

PPIC WATER POLICY CENTER

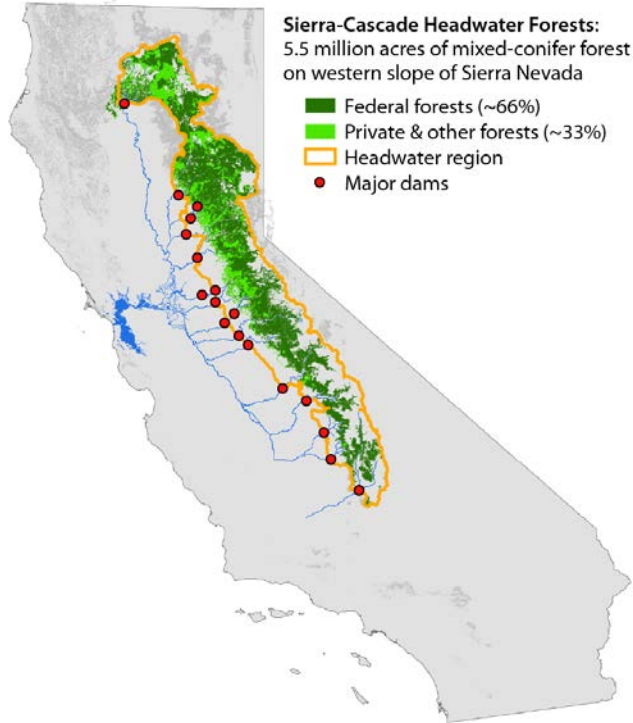
Enthusiasm for improving forest health in headwaters is rising, but information is lacking

- Policymakers and forest managers plan to ramp up the pace and scale of work
- But understanding of the pace, scale of forest management is limited
- Our first-step accounting of past efforts helps clarify the problem, identify priority needs



Forest health project map

Headwater forests are key to California's water supply



- Half of state's surface water supplies originate in these mountains
- Region has very high wildfire risk, vulnerability to droughts and pests
- Management techniques and benefits are specific to this region

California's headwater forests have changed

Feather River 1890



Resilient mosaic forest

Feather River 1993



Overly dense forest

We need to manage for resilient mosaic forests

The goal: A patchwork of varied tree densities, openings, tree sizes



A mosaic of trees in the Stanislaus-Tuolumne Experimental Forest

A variety of management techniques are used

Strategic use of fire



Prescribed burning & managed wildfire

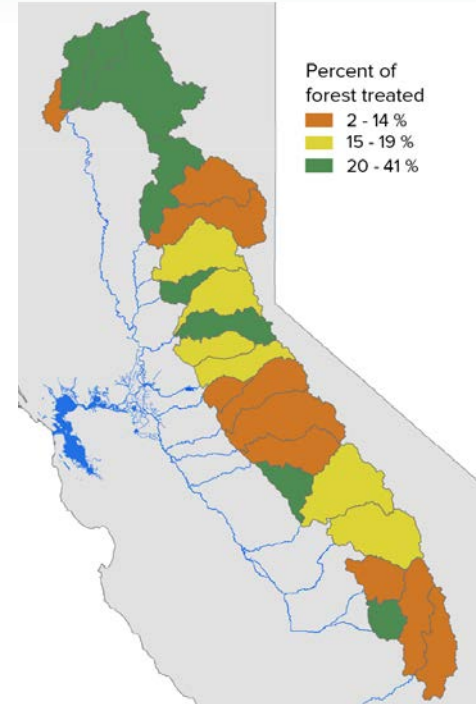
Mechanical treatments



Mechanical thinning & timber harvest

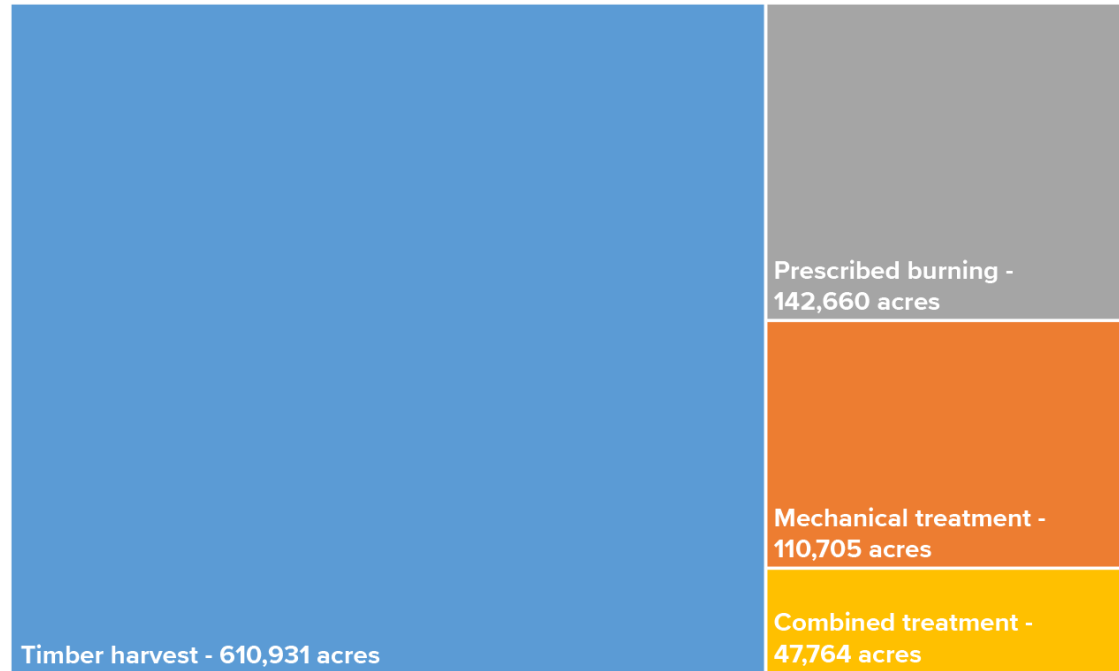
Forest management is not scaling up fast enough

- Broad treatment goal is 20–30% of the landscape
- From 2010–20, overall management footprint was about 16%
- Major differences in progress by land ownership type and regionally



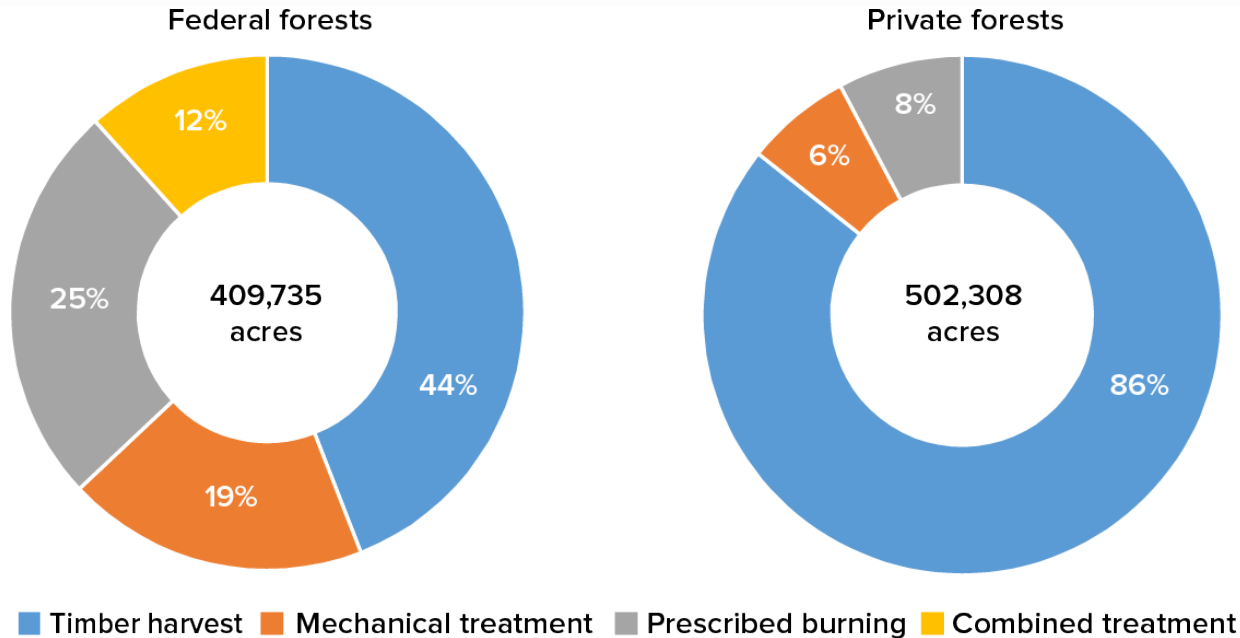
Timber harvest has been the main management approach

Total Amount: ~912,000 acres



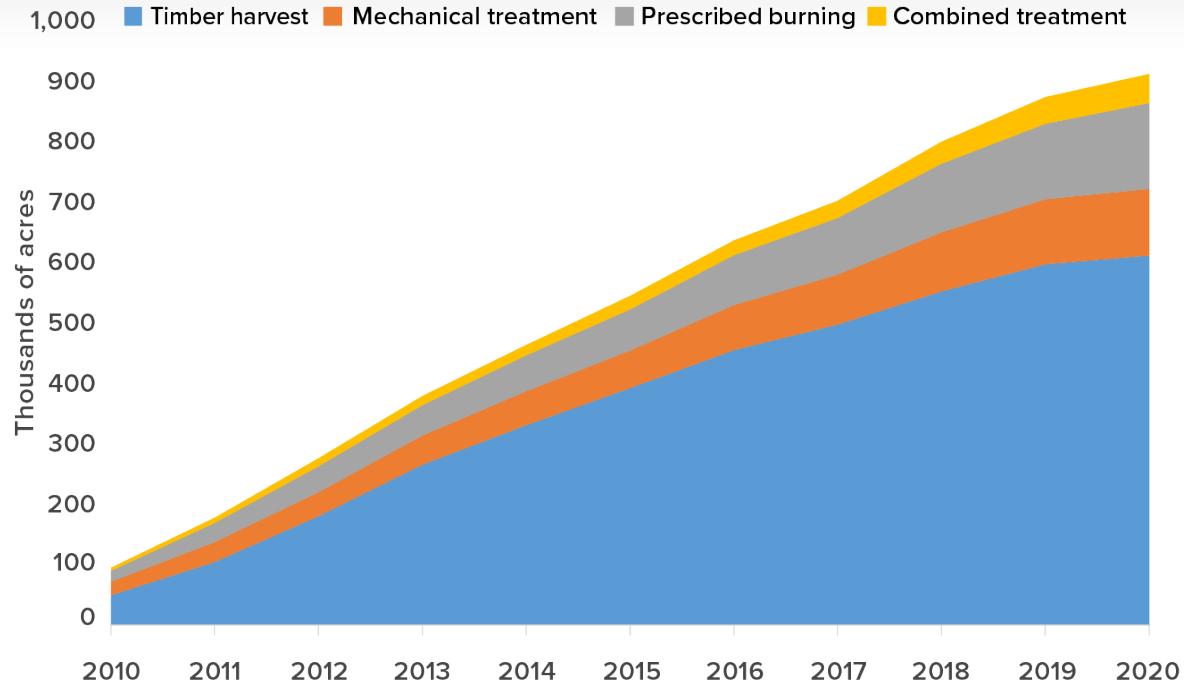
McCann and Xiong (PPIC Blog, February 8, 2021)

Stark differences in management approaches based on landownership



McCann and Xiong (PPIC Blog, February 8, 2021)

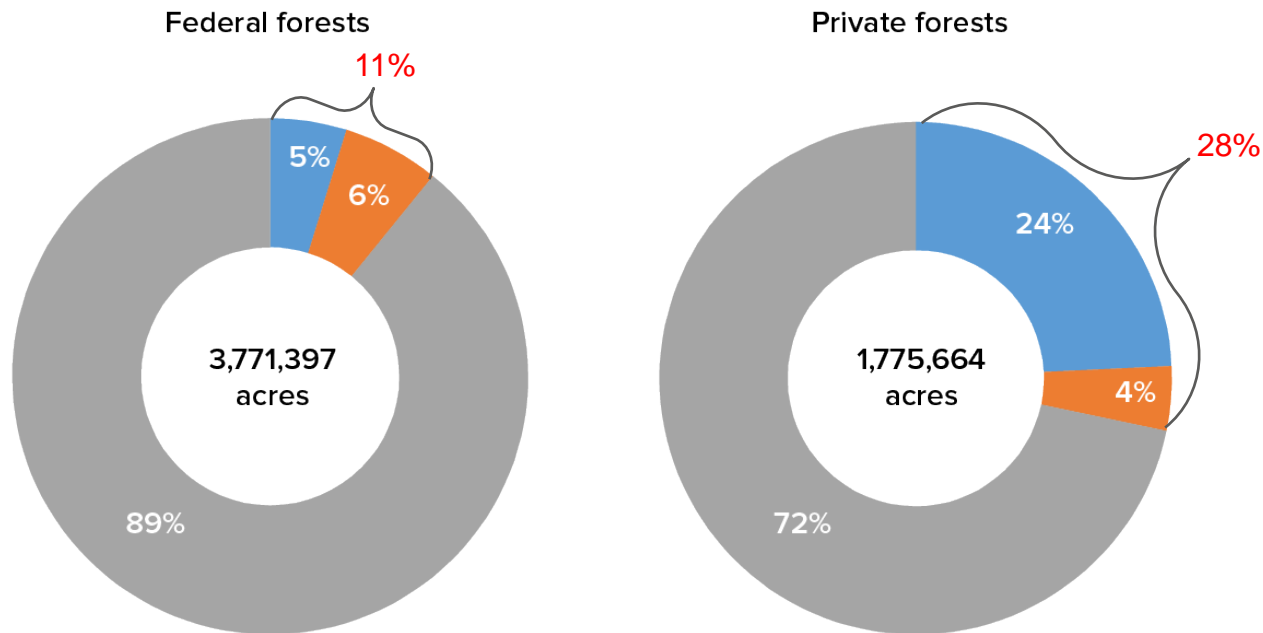
The pace of management has been flat



McCann and Xiong (PPIC Blog, February 8, 2021)

Differences in pace and type of management raise two key challenges

Treatment goal: 20-30%



■ Timber harvest ■ All others ■ Untreated

We are at a pivotal moment to set direction on headwater forest management

- State and federal commitment to jointly ramp up forest management efforts within next 4 years
- First-ever statewide action plan for improving forest health
- Proposal to increase state funding for forest health, extending funding timeline



Thank you!

These slides were created to accompany a presentation. They do not include full documentation of sources, data samples, methods, and interpretations. To avoid misinterpretations, please contact:

Henry McCann (McCann@ppic.org;
415-291-4491)

Thank you for your interest in this work.

