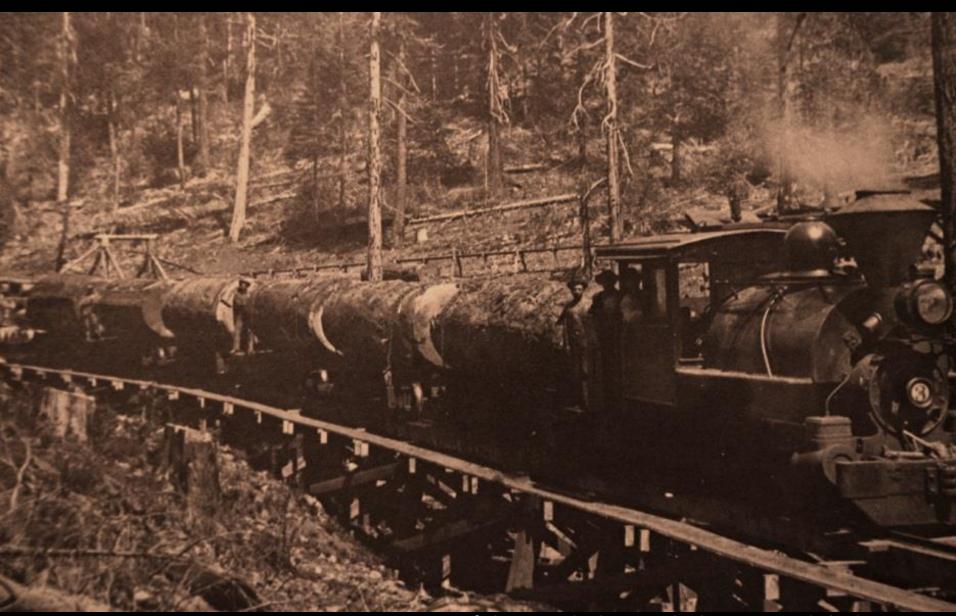


Logging has been part of Northern California since the gold rush



Timber barons from the upper Midwest and elsewhere bought many of California's most productive timber lands in the late 1800s and early 1900s - before the US Forest Service even existed.

This history is expressed in current land ownership patterns.



Butte County, 1930s. Big trees are coming out of the woods, leaving little trees and slash.



Butte County, 1940s. A train traverses a burn which was likely driven by slash and regeneration from earlier logging.



Clearcuts on private lands in the past 20 years.

Most of this land is currently highly susceptible to wildfire.

Momentum is building for more holistic wildfire management But most major California industrial timberland owners are not on board.



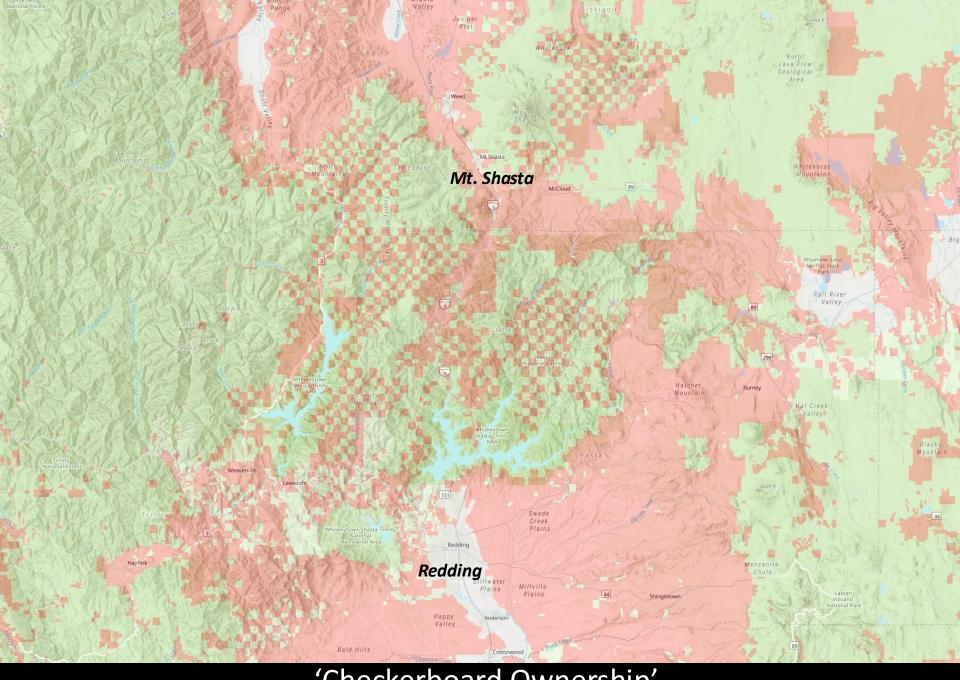
2019 Klamath River Prescribed Fire Training Exchange (TREX)



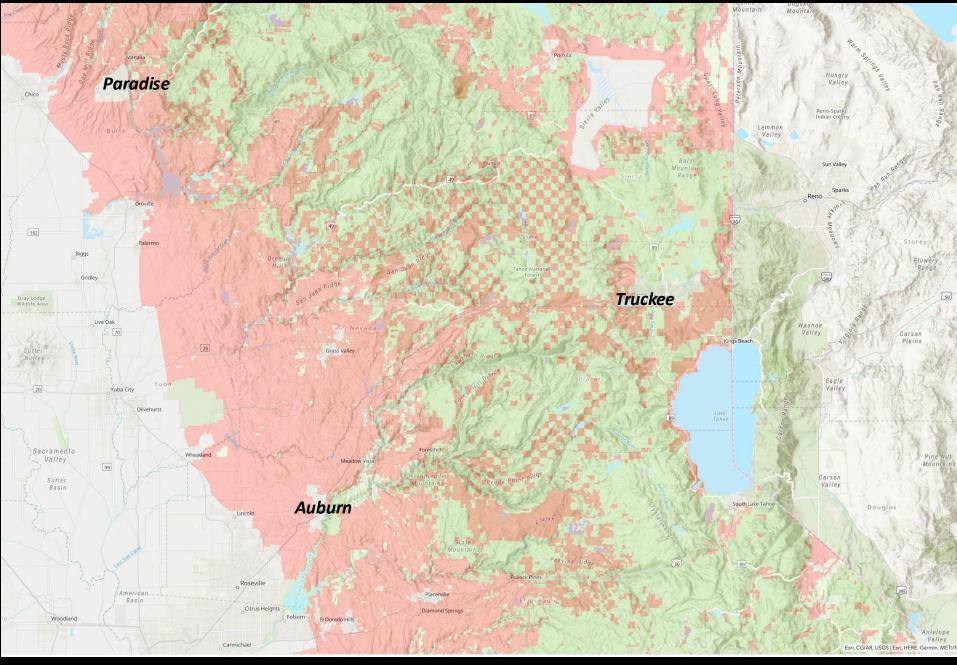
Understory burn in tanoak and Douglas fir to improve acorn quality and wildfire resiliency



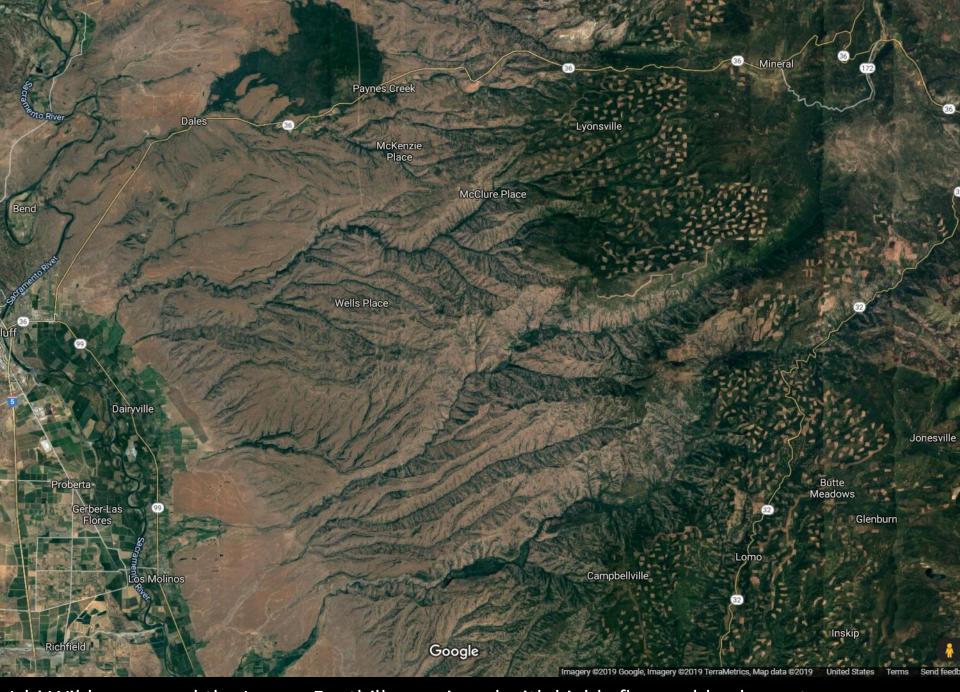




'Checkerboard Ownership'



'Checkerboard Ownership'



Ishi Wilderness and the Lassen Foothills are ringed with highly flammable clearcuts.





Wildfire hazard changes over time. Recent clearcut and slash – Butte County, 2019



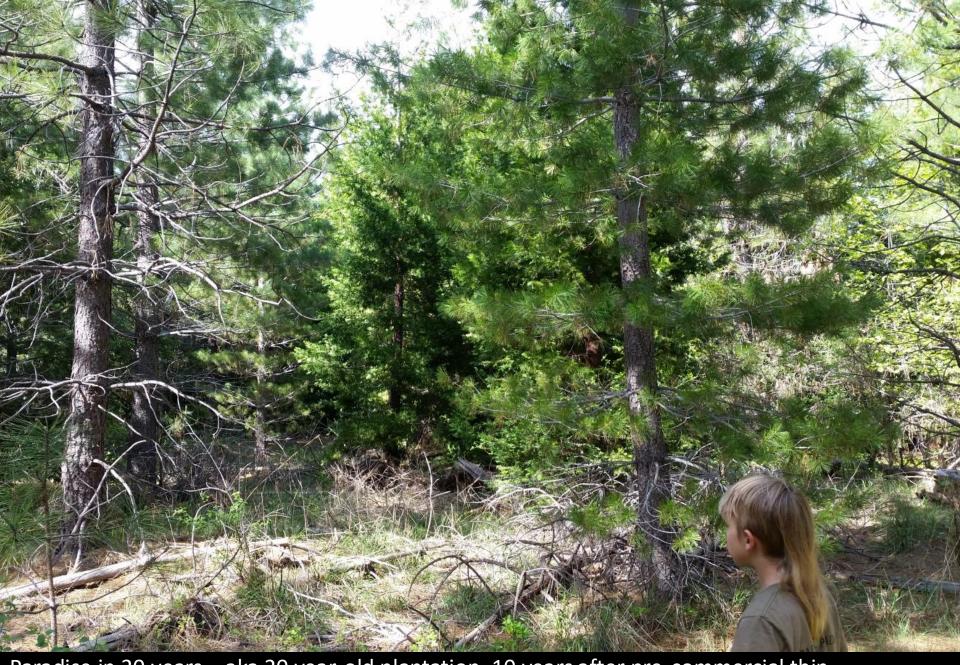
7 year-old plantation — Butte County



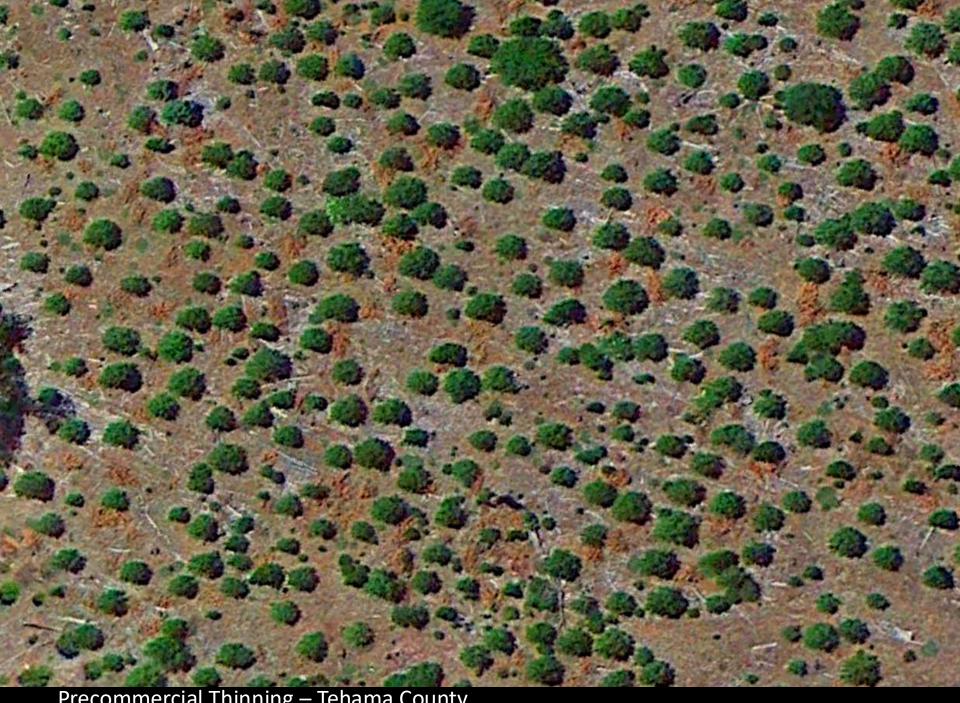
10-12 year-old plantation — Butte County



2010 Precommercial Thinning in +/- 10 year old stand – Butte County



Paradise in 20 years – aka 20 year-old plantation, 10 years after pre-commercial thin – Closed canopy is creating shade, reducing eye-level winds, fine slash is rotting away



Precommercial Thinning – Tehama County



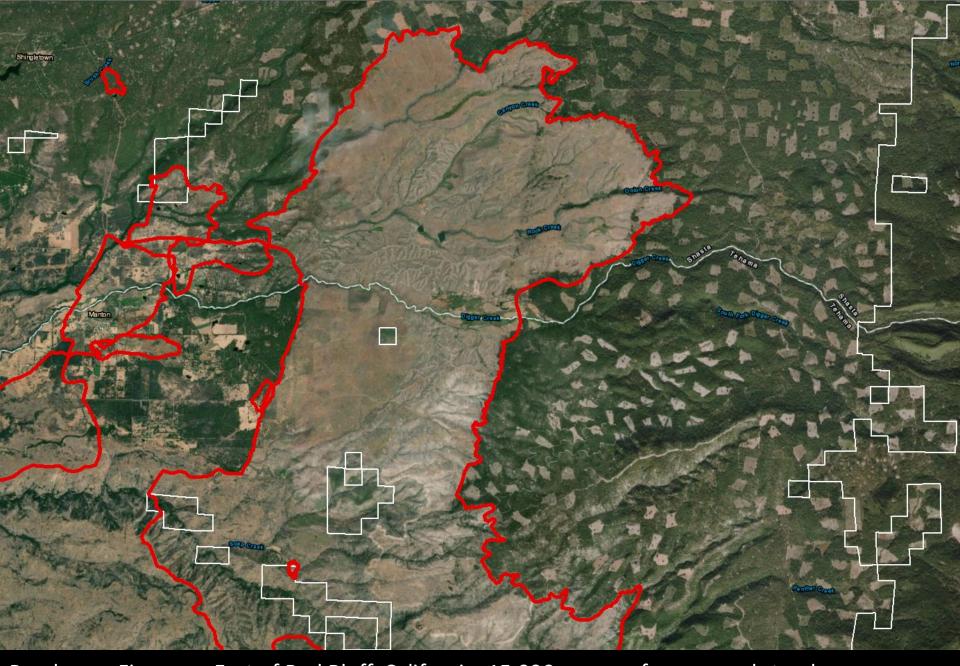
Taxpayers subsidize fire-prone plantation forestry with FREE fire protection.



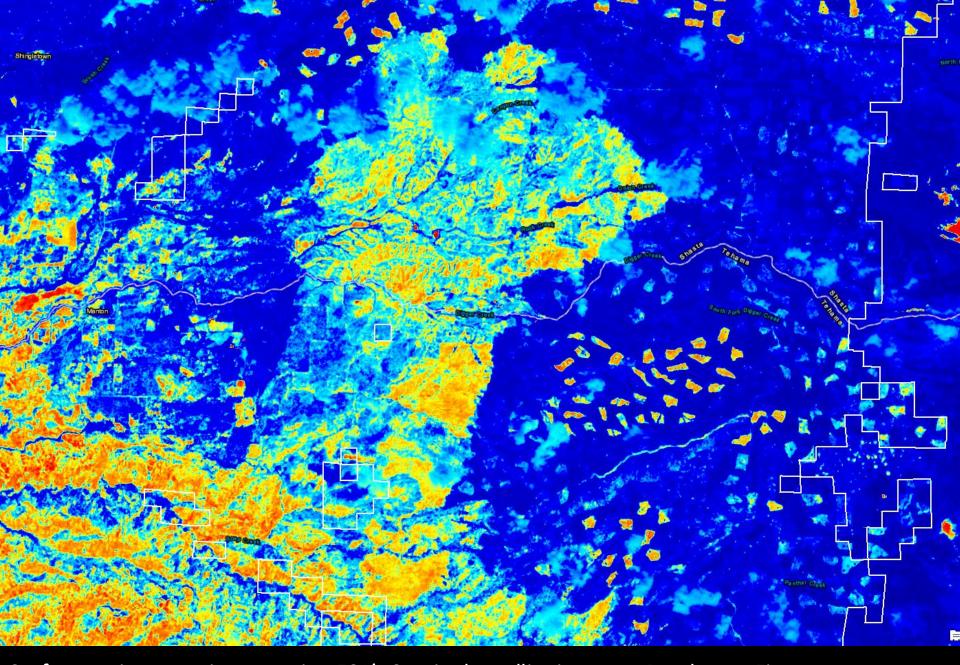
2012 Ponderosa Fire Area – Tehama County



2012 Ponderosa Fire Area after salvage logging – Tehama County



Ponderosa Fire area, East of Red Bluff, California. 15,000+ acres of even-aged stands. Fires and logging increase the dryness of the forest at a landscape-scale.

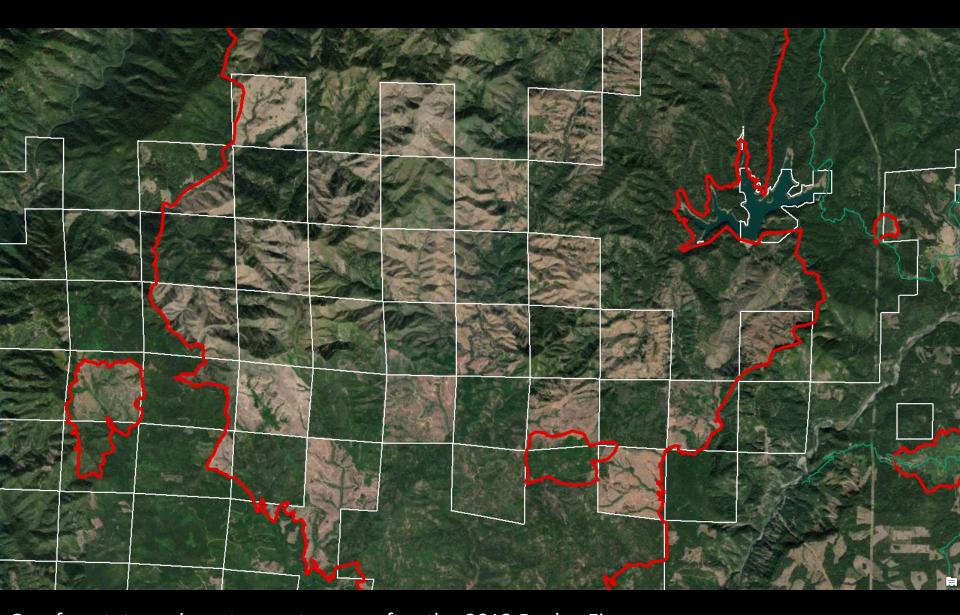


Surface moisture estimates using ESA's Sentinel satellite imagery. Ponderosa Fire area. Fires and logging increase the dryness of the forest at a landscape-scale.

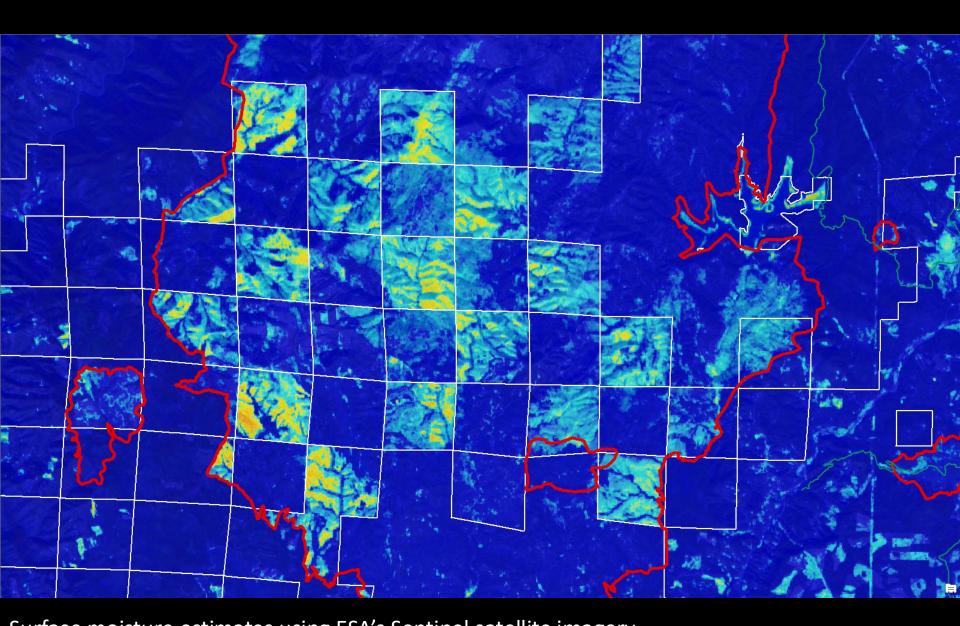


Checkerboard ownership constrains landscape-scale fire management. Prescribed fire needs to be implemented at a large scale.

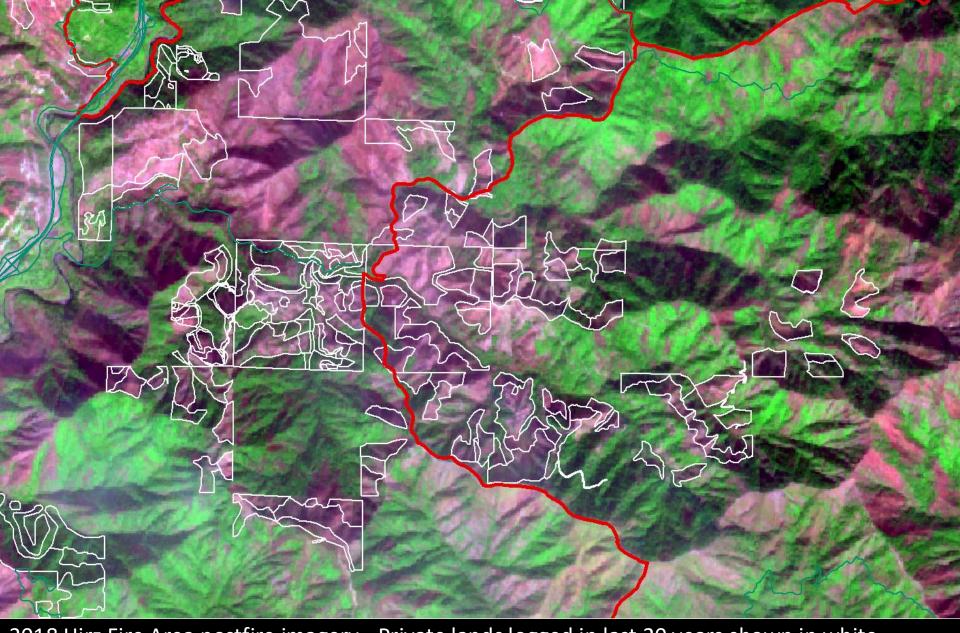
This is nearly impossible anywhere there is intermixed private timber land.



One forest, two plans, two outcomes after the 2012 Bagley Fire.
Public lands are on a trajectory for a more fire-resilient future, but need fire again soon.



Surface moisture estimates using ESA's Sentinel satellite imagery. Fire scars and clearcuts increase the dryness of the forest floor for large portions of the year.



2018 Hirz Fire Area postfire imagery - Private lands logged in last 20 years shown in white. Many unlogged areas still have living trees (green areas).

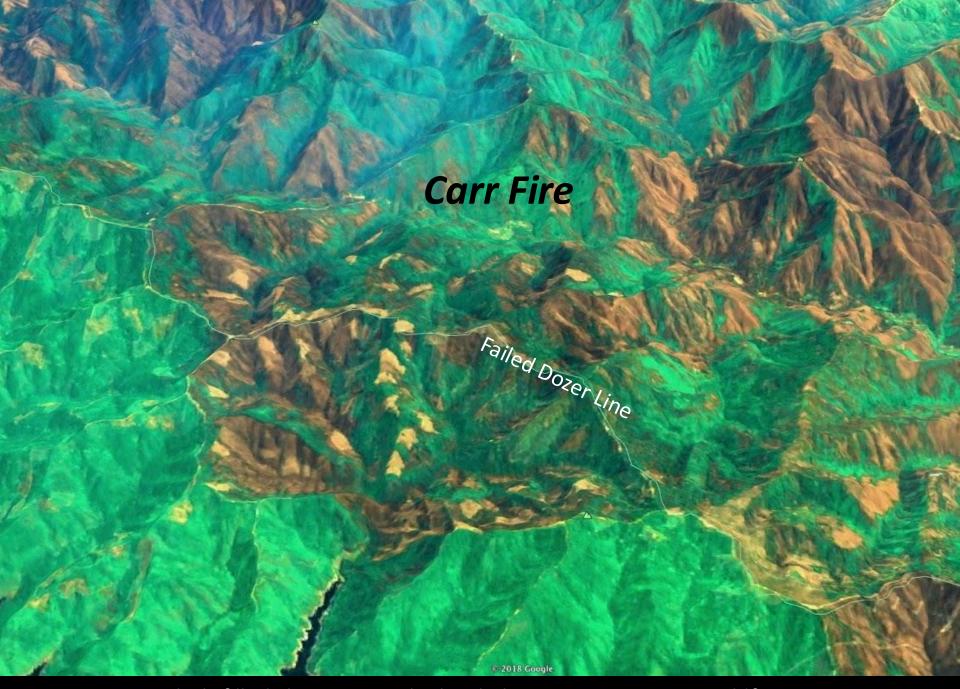
Timber interests pressured USFS fire team for more aggressive firefighting.



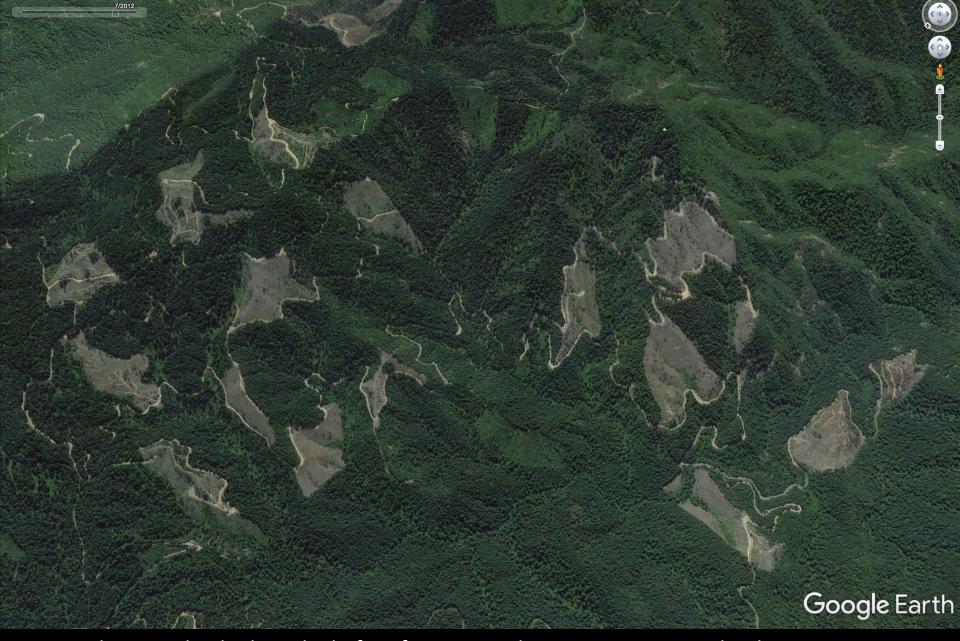
Ridgetop dozer line on Hirz Fire.



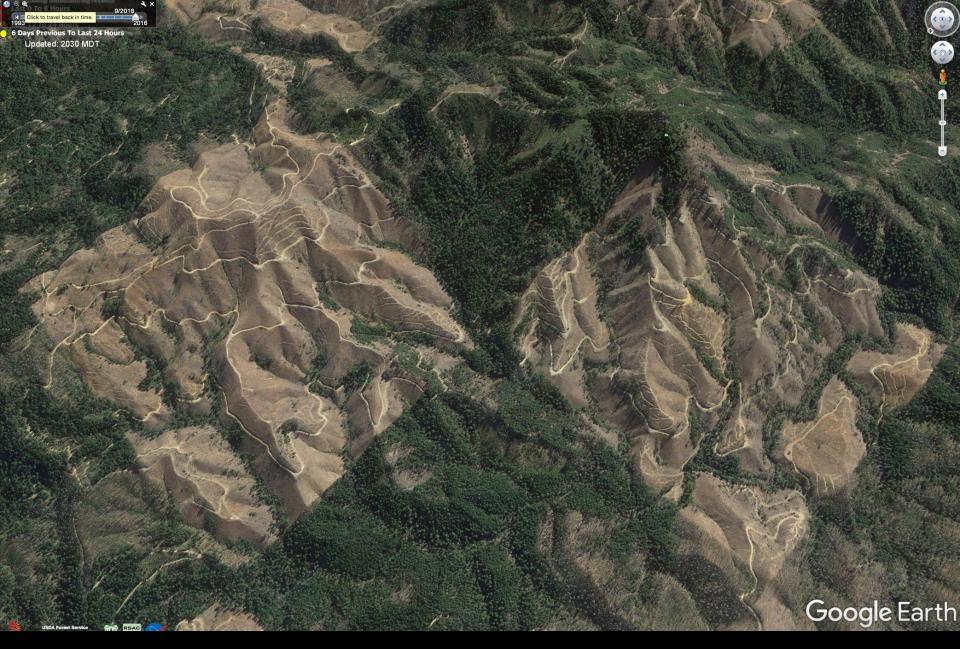
2018 Hirz Fire area - Slash-filled clearcuts can be hard places to stop a major wildfire.



2018 Carr Fire - Slash-filled clearcuts can be hard places to stop a major wildfire.



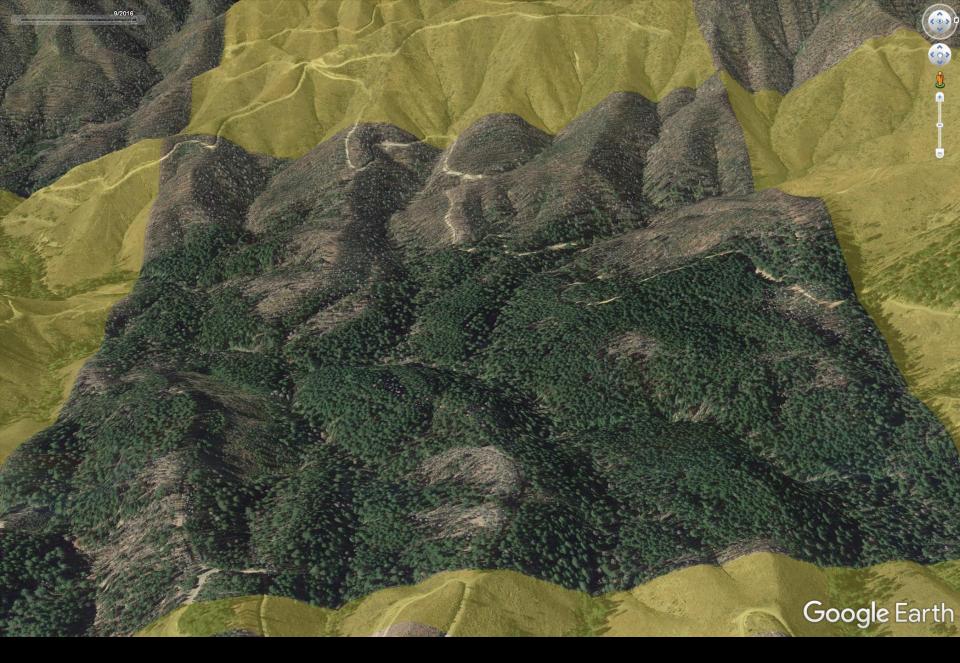
2012 Bagley Fire checkerboard – before fire. Recent harvest is on private lands.



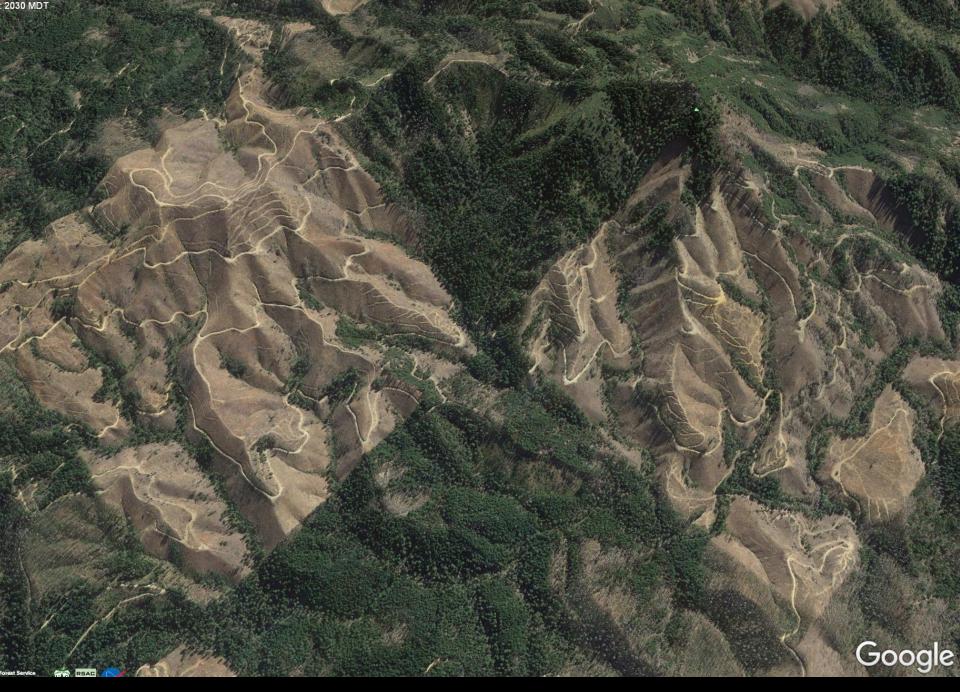
Bagley Fire checkerboard – after fire. Private lands have been salvage logged and replanted. Public lands were thinned by the fire, and ready for follow-up underburning.



Bagley Fire checkerboard – before fire. Private lands in yellow.



Bagley Fire checkerboard – after fire. Private lands have been salvage logged and replanted. Public lands were thinned by the fire, and ready for follow-up underburning.



Prescribed burning is nearly impossible if you have to stop the fire on straight midslope lines.