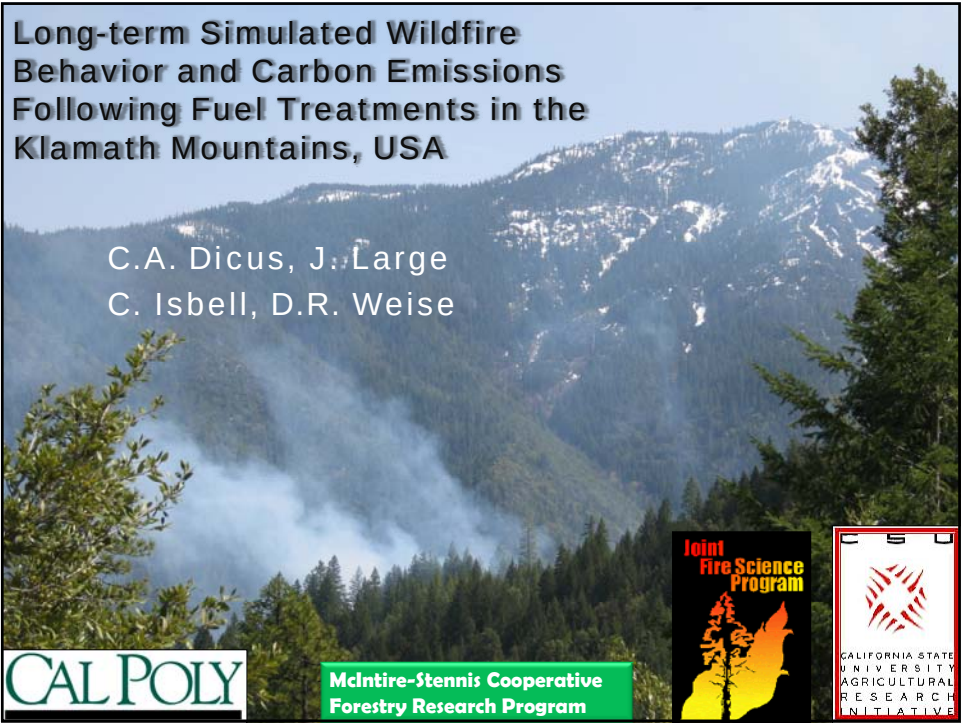


Long-term Simulated Wildfire Behavior and Carbon Emissions Following Fuel Treatments in the Klamath Mountains, USA

C.A. Dicus, J. Large
C. Isbell, D.R. Weise





Bridging the stereotypes in the WUI...

Stupid rednecks wanna pave the world, bro!

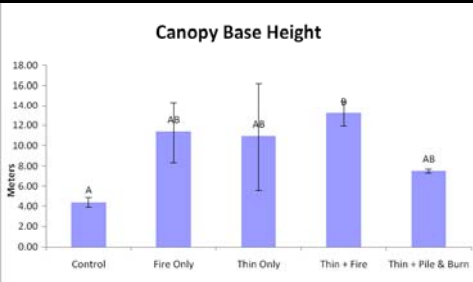
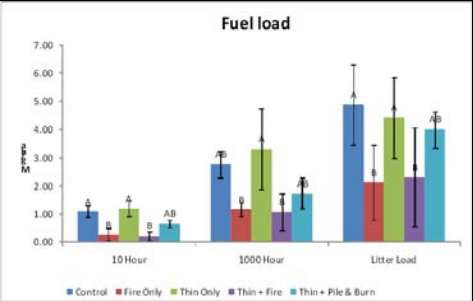
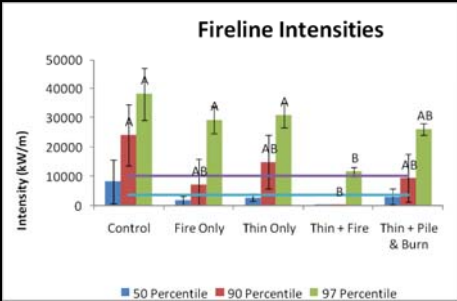
Dang hippies like bushes more than people!



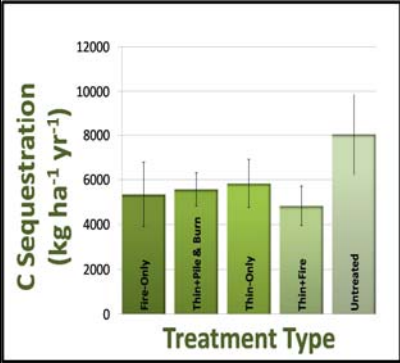
Treatments



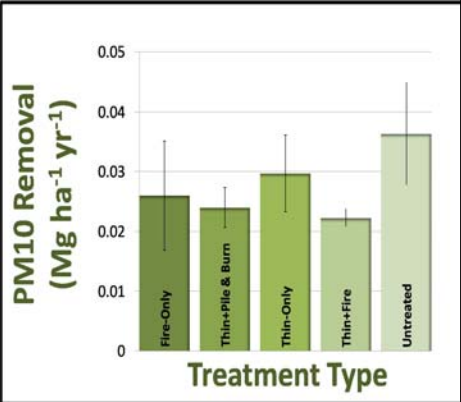
Fire Behavior



Ecosystem Services



Annual carbon sequestration



Annual air pollutant removal

Treatments are like cuddly,
innocent babies...



But forests grow up...
and sometimes get scary

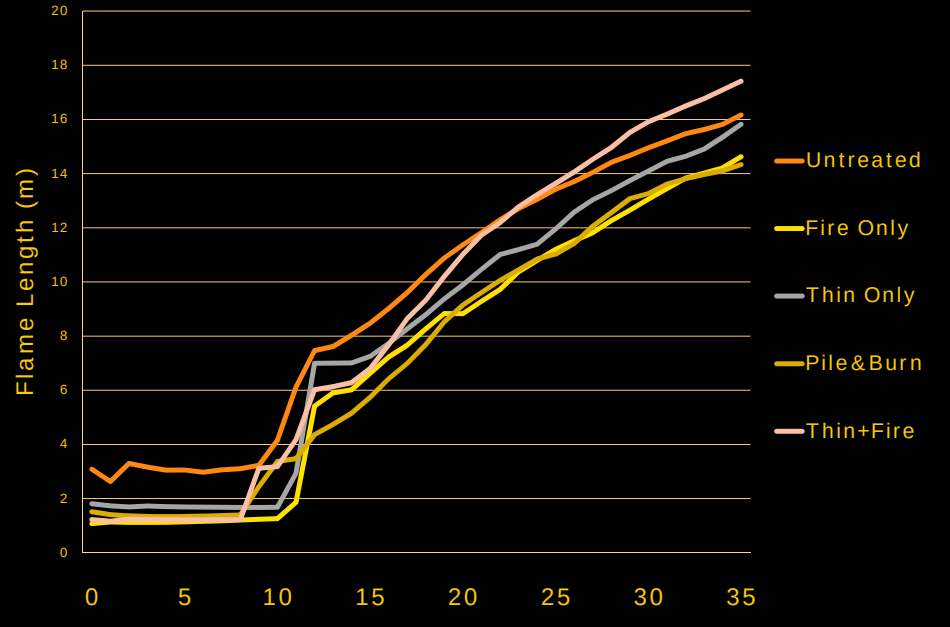
Methods

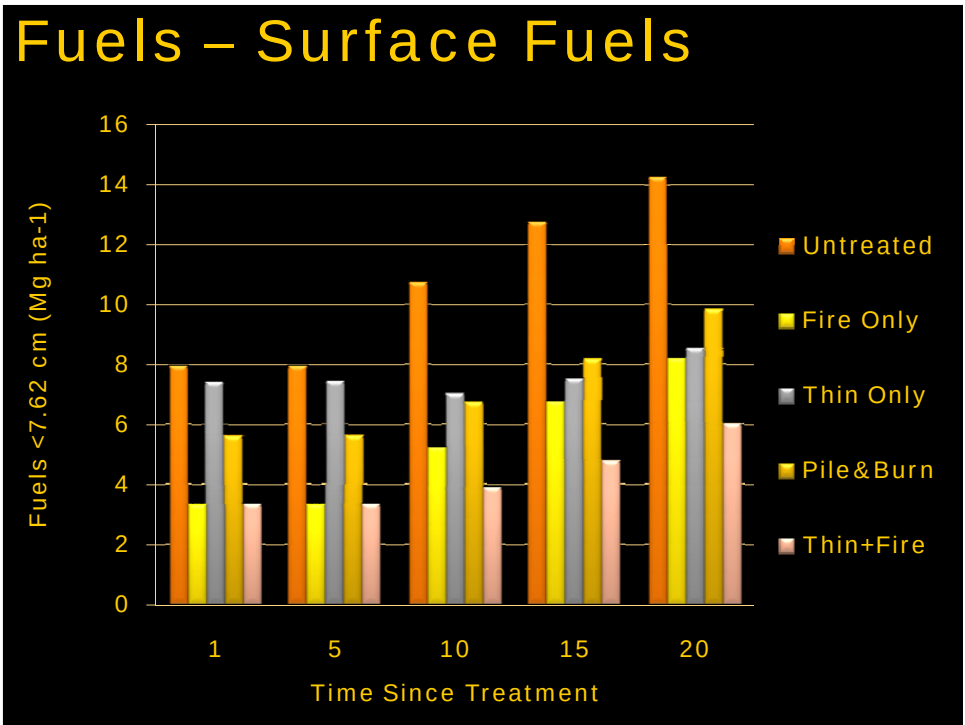
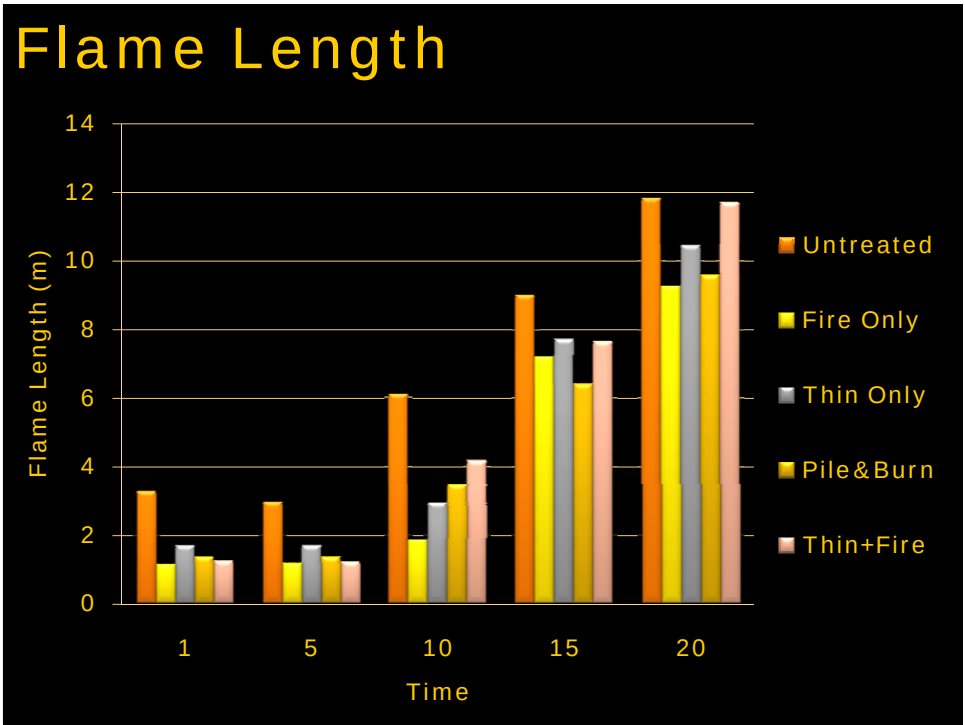


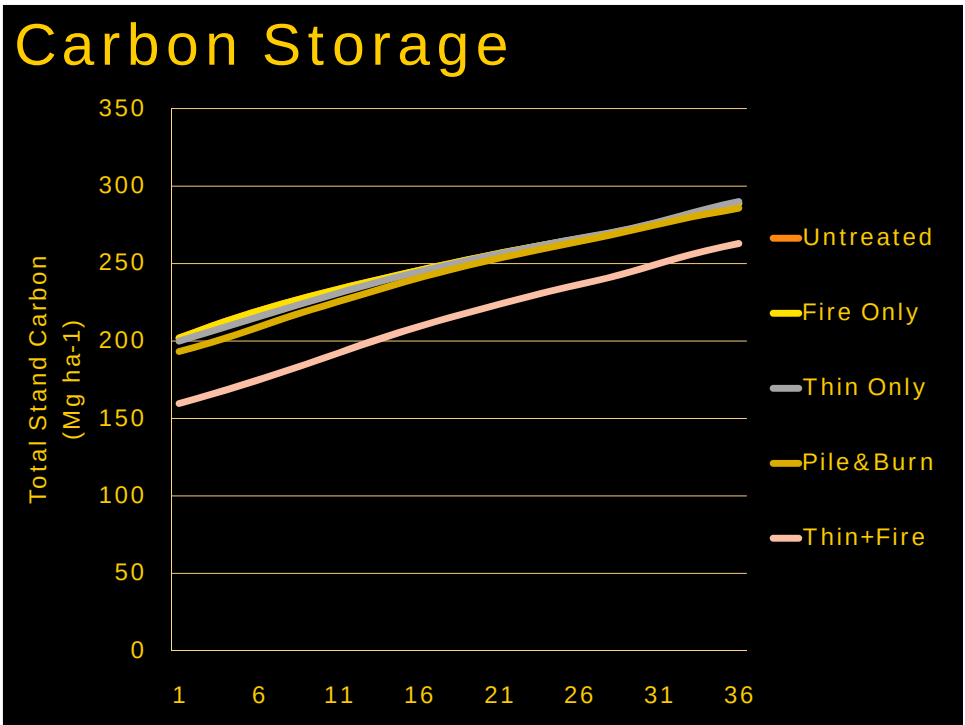
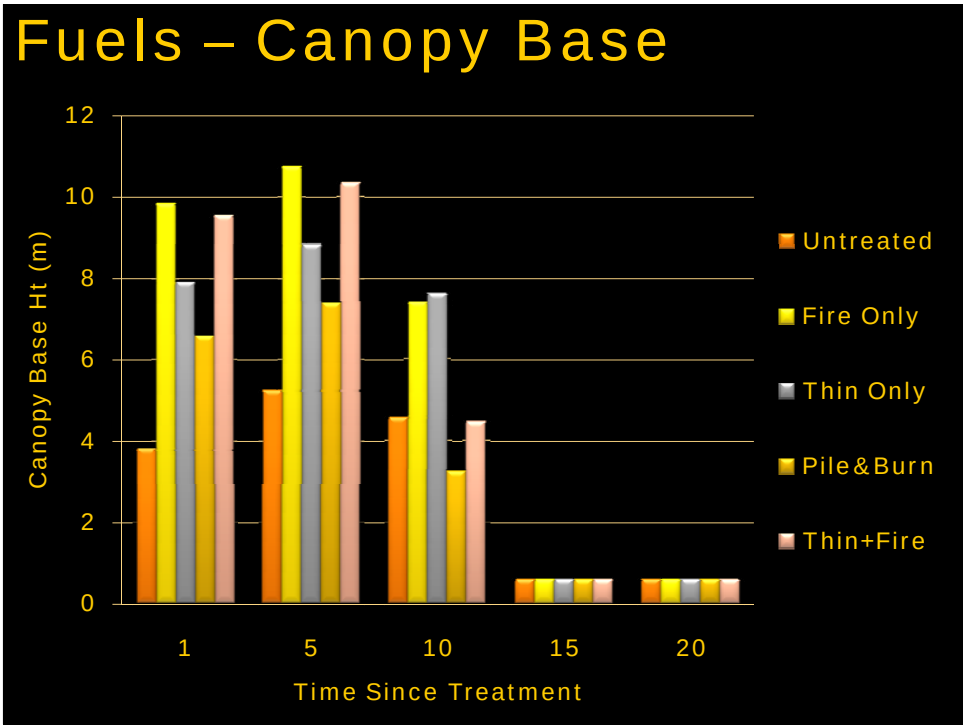
- FVS
 - 1-year cycles for 40 years
 - Surface fuels initialized per collected data
 - Weather per RAWS
 - (moderate shown here)
- 3 replicates of each Treatment



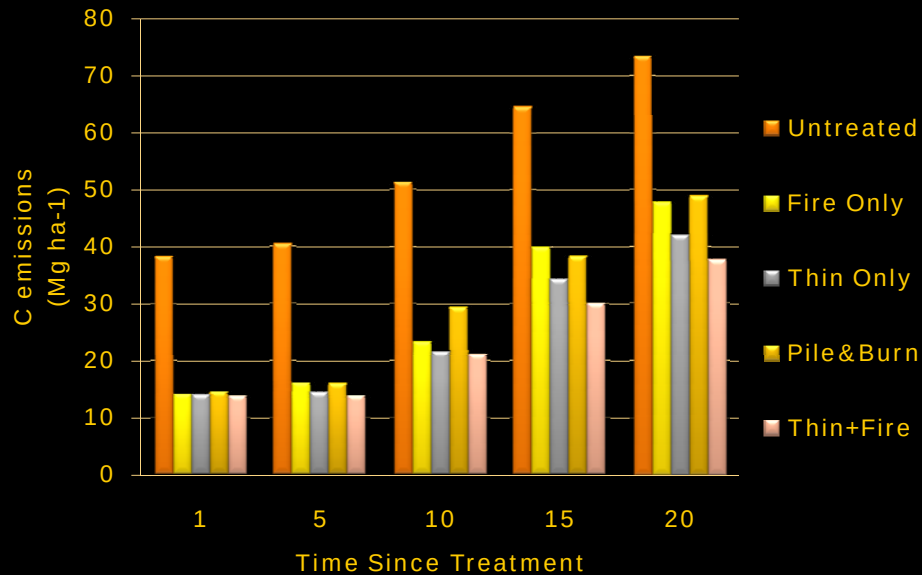
Flame Length







Carbon Emissions – Wildfire under 50th % Wx

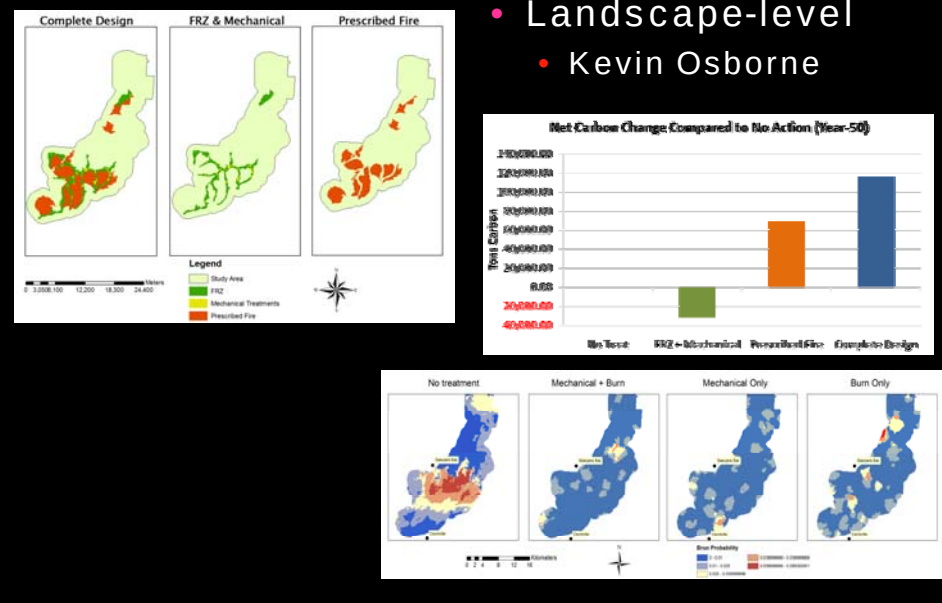


Conclusions



- Treatments vary in...
 - Longevity of effectiveness
 - Based on surface fuels and canopy base height
 - C storage and potential C emissions through time
- NOT treating stands have small impacts on carbon storage
 - HUGE impacts on potential losses

Next steps – Landscape



- Landscape-level
- Kevin Osborne

