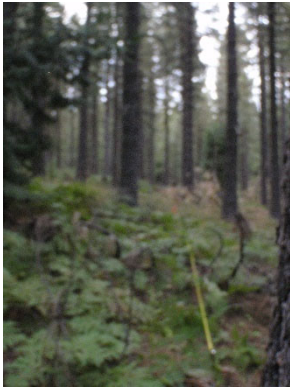


Fuels and Fire Behavior Digital Dictionary

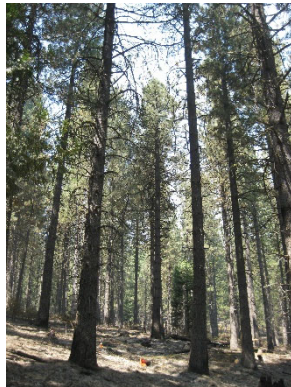
The Fire Behavior Assessment Team

Rim Fire
Plot #7

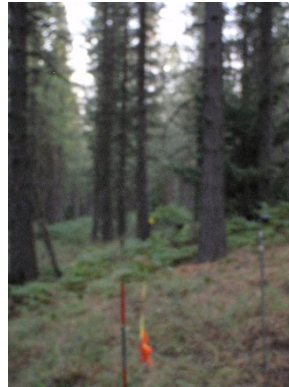
9 /1/2013
Region5/Stanislaus NF and Yosemite NP



Transect 1, Pre, 0-50ft



Transect 1, Post, 0-50



Transect 1, Pre, 50-0 ft



Transect 1, Post, 50-0 ft



Transect 2, Pre, 0-50 ft



Transect 2, Post, 0-50 ft



Transect 2, Pre, 50-0 ft



Transect 2, Post, 50-0 ft



Transect 3, Pre, 0-50 ft



Transect 3, Post, 0-50 ft



Transect 3, Pre, 50-0 ft



Transect 3, Post, 50-0 ft

Rim Fire, Plot7, 2013

Fuels, Topography, Weather

Site Info	
Veg Type	Plantation, Ponderosa dominated
Slope (%)	21
Aspect (deg)	94
Elev (ft)	5,200

Climatic Variables	
Date/Time burn start	9/1/2013, ~1300
Date/Time burn end	9/1/2013, ~1400
20ft Wind (mph), 10min avg/gusts	9/15
Onsite wind (mph), eyelevel (10min avg)	n/a
Wind direction	231
RH%	31
Temp (F)	81
ERC/BI	66/47
Drought Index	n/a
Live FM% (Herb/Woody) from RAWS	42/94
Live FM% (taken onsite)	n/a
Dead FM% (1/10/100/1000hr)	7/8/9/10

Fuel Model (low/high)
161/188

Surface Fuels - Pre	Tons/ac
1-hour	0
10-hour	0.8
100-hour	1.9
1000-hour	5.2
Litter	3.9
Duff	40.7
Total Fuels	52.5

Understory Vegetation	Tons/ac
Live/Dead Shrub	0.054/0.017
Live/Dead Herbaceous	0.038/0.004

Canopy & Stand	
Canopy Bulk Density (kg/m ³)	0.062
Canopy Base Height (ft)	33
Basal Area (ft ² /ac)	322
Overstory Trees/ac	104

Climatic Variable Sources

Weather and fuel moisture taken from Mt. Elizabeth RAWS using NFDRS2016 outputs. ERC and BI are scores, not percentiles.

Site History: 1950 Wrights Creek Fire. Plantation. Tree thinning in 1995 and 2001

Fire Behavior

Fire Behavior	
Primary Fire Type	Surface
ROS - sensor source (ch/hr) (min/max/avg)	n/a
ROS - video interp. (ch/hr) (min/max/avg)	n/a
Flame Length (ft) (min/max)	n/a
Direction Fire Spread is going (azimuth)	315

Fire Video	Description
	No video due to camera malfunction. See Rim plot 8 which was within a few 100 ft of plot 7.

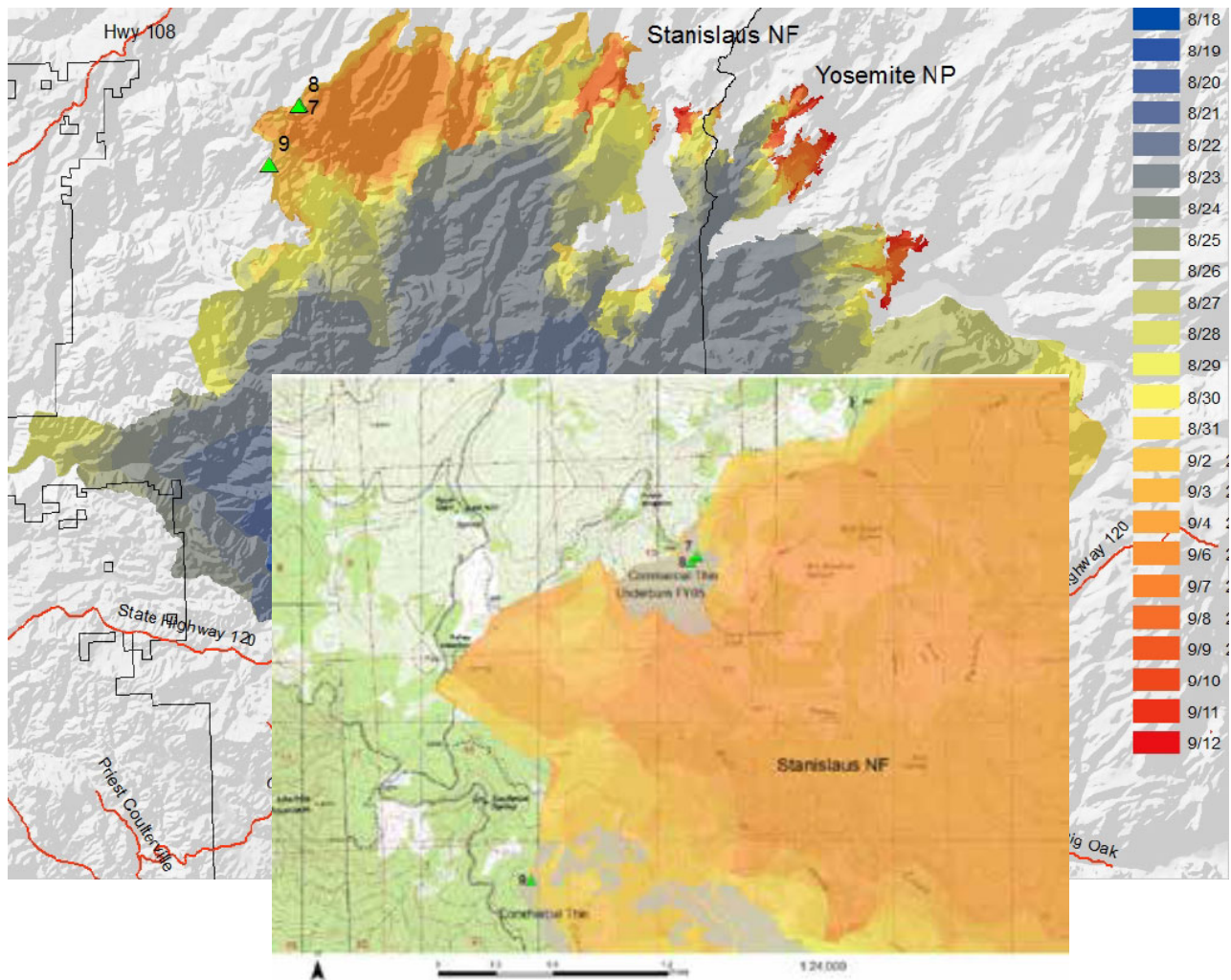
Fire management actions affecting plot:
Burnout operation

Fire Effects

Fire Severity	
Substrate Score (1-5)	1.1
Understory Vegetation Score (1-5)	3.6
Avg % tree canopy scorch	0
Avg % tree canopy torch	0
Avg tree bole char (ft)	n/a

Severity category definitions: 1= unburned, 2=low, 3=moderate, 4=high, 5=very high

Fuel Consumption	%
1-hour	n/a
10-hour	100
100-hour	100
1000-hour	35
Litter	100
Duff	100



About the Fire Behavior Assessment Team (FBAT)

Abstract

Despite the scope of the US wildfire problem, capabilities for monitoring active wildfires to answer pressing questions about fire behavior and personnel safety are severely limited. The **Fire Behavior Assessment Team (FBAT)** is the only team currently collecting [applied science data on active wildfires](#). FBAT functions in collaboration with land managers and interested research groups. In coordination with incident management, sites are placed opportunistically ahead of the fire accounting for current and expected fire behavior, safe access, and fire management tactics.

FBAT can collect standard weather, fire behavior and fire severity observations as well as set up dataloggers which store wind speed, direction, temperature and RH. FBAT can also take plot data which includes:

- Heat resistant fire behavior equipment left on-site (video camera, 5-foot anemometer, sensor array for rate of spread/temperature profile through time, heat flux sensor).
- Fuels data collected on canopy, surface and ground fuels before and after the fire, and fire severity assessment post-fire. Fuel moisture data is often collected prior to the fire.

More information about methods and data can be found on the FBAT website:

<https://www.frames.gov/fbat/home>

The report for this fire which includes field methods and other background can be found at:

https://www.fs.fed.us/adaptivemanagement/reports/fbat/2013_FBATdraftRimFire_061015_Final.pdf