



**SOUTHWEST
FIRE SCIENCE
CONSORTIUM**

A JFSP KNOWLEDGE EXCHANGE CONSORTIUM



2011 Horseshoe 2 Fire Soil Burn Severity by Ecosystem

Chiricahua Ecosystem	Soil Burn Severity	Acres	% of Ecosystem Affected
Aspen/Mixed Conifer <i>(includes spruce)</i>	High	191	11%
	Moderate	578	33%
	Low	677	39%
	Unburned	310	18%
	TOTAL		1,755
Rocky Mt Mixed Conifer <i>(Douglas-fir/Ponderosa/SW white and no/few Madrean oaks)</i>	High	725	14%
	Moderate	1,419	27%
	Low	1,990	37%
	Unburned	1,202	23%
	TOTAL		5,336
Upper Madrean Pine-Oak <i>>50% conifer, mostly Douglas-fir/Ponderosa/AZ pine)</i>	High	1,634	11%
	Moderate	3,863	26%
	Low	5,409	37%
	Unburned	3,688	25%
	TOTAL		14,595
Lower Madrean Pine-Oak <i>(Apache/Chihuahuan pine along with >50% oak)</i>	High	14,403	26%
	Moderate	20,030	36%
	Low	14,420	26%
	Unburned	7,126	13%
	TOTAL		55,980
Pinyon/Manzanita on Rocks <i>(more than 50% bare/rocky, vast elevational range includes Douglas-fir, toumey oak, sotol)</i>	High	1,599	12%
	Moderate	4,800	35%
	Low	4,228	31%
	Unburned	2,907	21%
	TOTAL		13,533
PJ/Oak <i>(includes encinal and juniper savanna)</i>	High	8,033	8%
	Moderate	31,650	30%
	Low	44,772	43%
	Unburned	19,702	19%
	TOTAL		104,157
Rocky Mt. Riparian <i>(includes cypress and maple)</i>	High	25	2%
	Moderate	199	18%
	Low	434	40%
	Unburned	432	40%
	TOTAL		1,090

Soil Burn Severity by Ecosystem

Desert Riparian <i>(includes ash, cottonwood)</i>	Low	25	35%
	Unburned	47	65%
	TOTAL	72	
Mesquite/Prickly Pear Scrub <i>(more than 15% cover of shrubs)</i>	High	0	0%
	Moderate	119	3%
	Low	2,202	57%
	Unburned	1,547	40%
	TOTAL	3,869	
Grassland	Moderate	175	7%
	Low	1,801	76%
	Unburned	557	24%
	TOTAL	2,359	
Creosote	Moderate	8	3%
	Low	55	20%
	Unburned	224	80%
	TOTAL	279	
Limestone Pinyon/Mt Mahogany <i>(mapped only on Paleozoic limestones, and includes rosette grassland with Agave, Yucca, and Sotal)</i>	High	1,116	15%
	Moderate	2,677	37%
	Low	2,343	32%
	Unburned	1,114	15%
	TOTAL	7,250	



Top photo: Southern Rocky Mt Mixed Conifer ecosystem near Rustler Park, at 8200 feet, June 11, 2010. The 1994 Rattlesnake fire (27,500 acres) left many snags and logs, as well as a large cohort of 2m tall ponderosa pine.



Bottom Photo: Same location, except in June of 2012, post-Horseshoe 2 (2011). All ponderosa less than 5m tall were killed. Surface fuels greater than 3 inches in diameter were greatly reduced, while forbs such as *Bromus* and *Verbascum* (woolly mullein) greatly increased.