



Structure Protection - How Do Firefighters Save Houses in the Woods?

When firefighters talk about “defensible space” around buildings and houses in the woods, they look for the absence of burnable vegetation including dry grass, brush and trees, wood piles, or anything else that might burn and threaten the structure. If they have time to do so before the main fire arrives, firefighters create their own “defensible space” around homes using chainsaws, hand tools, or heavy equipment such as bulldozers, masticators, and feller bunchers. Long-range sprinklers are set up to douse the buildings and surrounding area, using water sources such as ponds or portable folding tanks holding 1,500 gallons of water, as well as pumps and hoses. If available, fire-resistant material called “cabin wrap” resembling foil will be stapled to the walls of the buildings. Fire engine crews are on scene as needed; air support by water-dropping helicopters is also available. Firefighters then set fire to ground fuels outside of the defensible space or “control line” surrounding the structure, using road flares or “fusees” and “drip torches” that spread a mixture of flaming diesel and gas. As the firing team’s flames spread away from the structure toward the main fire, the growing, blackened area becomes a safe buffer between the house and the approaching main fire. Embers that float toward a structure’s “defensible space” are quickly sprayed out, as crews maintain viable escape routes.



Photos Top Left to Bottom Right: 1. Engine Crew at Beaver Creek Fire, CO, ready to defend cabin. Bob Meyer Photo. 2. Sprinklers set up at cabin, creating a wet area before burning. Bob Meyer Photo. 3. Portable 1,500 gallon fold-a-tank. Bob Meyer Photo. 4. Pike Hotshot burns fuels with drip torch. Mike McMillan Photo. 5. Prineville Hotshots and engine crew monitor burn ops at the Sandhouse, Beaver Creek Fire. Photo by Mike McMillan. Photos 6 and 7: Firefighters defend the Sandhouse, covered in ‘cabin wrap’, Beaver Creek Fire. McMillan Photos.