

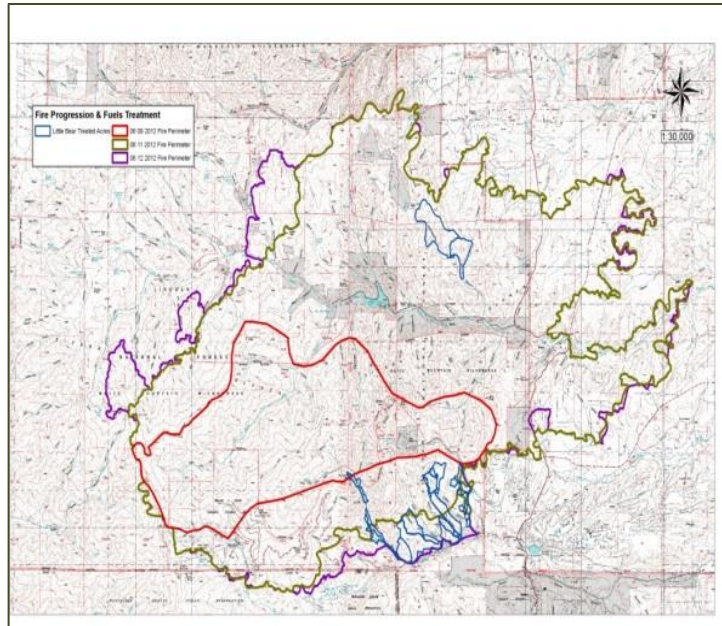
DEVELOPED BY ANDREW EGAN, DIRECTOR

NEW MEXICO  
FOREST AND WATERSHED  
RESTORATION INSTITUTE  
AT NEW MEXICO HIGHLANDS UNIVERSITY

# Effectiveness of Fuel Treatments in the Lincoln County WUI during the 2012 Little Bear Fire

A Report of the New  
Mexico Forest and  
Watershed Restoration  
Institute

# Background: Little Bear Fire



- Cause: Lightning
- Duration: June 4, 2012 – June 29, 2012
- Acreage burned: 44,330
- Suppression cost: \$19.4 million
- Full cost estimate: \$36.8 – 562.6 million



## Background: Little Bear Fire

- Homes destroyed: 224, more than in any previous NM wildfire.
- Property loss in Lincoln County from the Little Bear Fire: \$24,566,226





In the spring 2013, we held a meeting with firefighters from the Bonito Volunteer Fire Department Sonterra Station in Alto, NM, who were on the Little Bear Fire ...

... to review the fire's impact on the Lincoln County WUI.



## Fire behavior

- “Erratic on the first day.”
- “Not much fuel treatment where the fire started.”
- “There was lots of spotting.”

*“The fire didn’t behave normal.  
It was pissed off!”*





## Fire in the WUI

“Fuel treatments gave us access.”

“Spotting took some homes.”

In the Enchanted Forest area,  
“embers were the size of softballs,  
falling like rain – it was nearly  
impossible to see.”

“In Nazarene, fires there started  
from spot fires, not from the fire  
front.”

“No homes were lost in Santerra  
from the fire front.”

*“Because we thinned, our house  
survived.”*



## Effects of thinning in the WUI

- “Thinning helped a lot, but not a perfect answer, especially when fire conditions are off the charts.”
- “Thinning works well as long as we’re not talking about fires like this.”

*“Paul (one of the firefighters at the meeting) lost his home (in Nazarene).”*

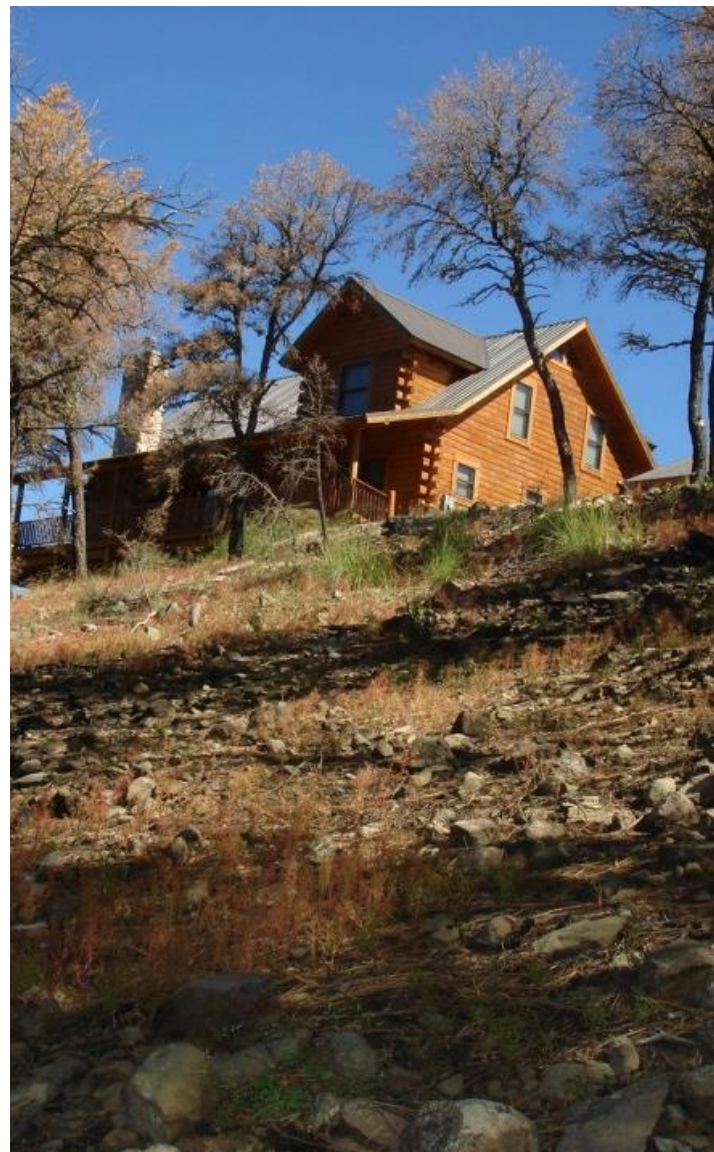


## Effects of thinning in the WUI

- “When tall pines weren’t thinned, but ladder fuels were, sometimes lost structures due to crowning.”
- “In Villa Madonna, a house burned two days into the incident, even though there were no trees within 150-feet of the structure. The house caught fire from a creeping fire through pine needles.”

*“With ‘super fires’ not sure anything will help.”*





## Effects of Firewise treatments in the WUI

- “Construction (methods) helped.”
- Use of composite material and concrete appeared to help in some cases.
- “I had embers land on my deck, but because it was made of composite material, it didn’t burn.”



## Effects of Firewise treatments in the WUI

- In the Enchanted Forest area, some houses were lost and some not – it was somewhat random, because houses were ignited from embers.
- “Some houses with wood shingles and lots of pine needles and trees nearby were okay; others, like a steel building, burned.”

*Average cost of Firewise treatments in the Ruidoso area is \$1,600/acre. Cost does not cover dead and down forest fuels.*





## Injuries and mortality

- “We had a lot of moving parts, especially in the first few hours, but no one was hurt.”
- “There weren’t even any accident reports in the first 24 hours, except for one tailgate.”

*“If you think about it, as bad as the fire was, there were no injuries.”*



# Literature referenced

- Impact Data Source. 2013. The full cost of New Mexico Wildfires. [www.ImpactDataSource.com](http://www.ImpactDataSource.com).
- Kuhar, K. 2012. Wildfire re-vegetation/Lincoln National Forest. USFS report. December 2012.
- Torres, M. 2012. Little Bear Fire destroys record number of homes. KOB Eyewitness News 4. June 18, 2012.

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