



**Fourmile Canyon
Fire Findings
July 2012**

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knowledge and
technology to sustain
our nation's forests,
rangelands, and
grasslands*

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Fourmile Canyon Fire Findings Fact Sheet

- The Fourmile Canyon Fire study was conducted by a team of Rocky Mountain Research Station scientists by request from Senator Mark Udall in an effort to learn from this incident and focus on reducing the risk of future catastrophic fires to communities in the wildland-urban interface (WUI).
- Understanding how the Fourmile Canyon Fire burned, the damage it caused, and how people and agencies responded enables us to further reduce the risks of, and response to, future wildfires on the Front Range.
- The Fourmile Canyon Fire was reported shortly after 10 a.m. on Sept. 6, 2010 and spread very rapidly burning 93 percent of this 6,181-acre fire within the first 10 hours.
- Conditions that contributed to the fire's rapid spread during the initial burning period include:
 - Prolonged period of exceptionally low humidity (less than 10 percent)
 - Sustained winds of 15 mph with gusts up to 41 mph.
 - Fine dead fuels — grasses, needles, etc. — with a moisture concentration of 5 percent that dropped to less than 2 percent by 5 p.m.
- Of the 474 homes within the fire perimeter, 168 homes were destroyed of which:
 - 29 homes were associated with crown fire
 - 139 were associated with surface fire
 - 162 were destroyed within the first 12 hours
- Eighty-three percent of home destruction did not directly result from exposures to surrounding high intensity crown fire and this is consistent with other WUI fire disasters. Although exact ignition causes are not known, without high intensity exposures, home destruction must be due to direct firebrand ignitions and/or surface fire spreading to contact the home.
- Fuel treatments were often focused on improving the health of the forest, developing safe travel corridors, and to create wildfire defensible zones using a shaded fuel break near homes and communities. Surface debris from the treatments had not been removed in many instances either physically or by prescribed fire. Thus, the efficacy of the fuel treatments was very limited.
- Over 3,000 residents were evacuated but no public or firefighter lives lost. This outcome is directly related to the excellent preparedness of Boulder County and the local fire districts.