FIRE ADAPTED COMMUNITIES LEARNING NETWORK

Notes from the Field

Fantastic Failure: False Hope and the Four Mile Canyon Fire

By Dave Lasky

On the morning of September 2, 2010, the Four Mile Canyon Fire ignited in the Rocky Mountain Foothills, just west of Boulder, Colorado. Eighteen hours later, 168 homes were destroyed, and over 6,000 acres had burned. For me, what started as a smoke report from a neighboring fire protection district finished as the most traumatic experience of my professional career. I watched the fire destroy seven of my neighbors' homes and fought the fire from my own front deck. It is a horrific moment when you realize that the worst case scenario, the thing you had been theoretically preparing for, is actually happening. Despite having fought fire across the West, I was emotionally unprepared to help my wife evacuate our dogs, cat and horses while also defending my friends' and neighbors' homes.

The Four Mile Canyon Fire two hours after ignition, seen behind a 1989 fire scar.
© Sugarloaf Fire Protection District

A few months earlier, I stepped down as the fire and fuels crew boss for the Four Mile Fire Protection District. During the five years that I worked in that position, I passionately advanced fire mitigation. As a matter of fact, the crew treated over 600 acres within what is now the Four Mile Canyon Fire perimeter. From grant writing to community organizing to feeding branches though the chipper, we had become deeply acquainted with what is now a burned landscape and the people who called it home.

The Four Mile Canyon Fire is now less remembered in the wake of the devastating High Park, Waldo Canyon, and Black Forest Fires. But at the time, it was the most destructive fire that Colorado had experienced in 20 years. As such, Senator Mark Udall commissioned a report to determine if fuels treatments had meaningfully prevented structure loss. Hundreds of thousands of dollars, both public and private, were spent within the fire perimeter, before the fire, on mitigation. Excellent researchers, such as Dr. Jack Cohen, were involved in the research and report.

To save you from having to read the reports, the short answer to Senator Udall's question was **no**. Years of work did not significantly prevent structure loss. Of course, there were massive, systemic issues that contributed more significantly to this failure than a wildfire mitigation crew with chainsaws. But professionally, the report left me feeling about 2 inches tall. It was hard not to feel like we had failed and our failure was incredibly public, no less. We failed our neighbors that had spent significant money to "prevent the loss" of their homes. We failed the families that had put their trust in us. I would risk being called arrogant if I took too much of the blame, but the reality was that homes we had worked around had burned to the ground, in a few cases, with pets still inside.

So what did we learn?

Doing something is *not* better than doing nothing.

When the mitigation crew approached residents in the past, they often said, "I didn't move up here to see my neighbors. I don't want to cut trees." In an effort to build momentum, we often performed work that we knew was not reflective of the best science, cutting fewer trees than we should have. This practice was in regard to both defensible space as well as shaded fuel-break projects. The hope was that as communities adjusted to the cosmetic changes, we'd be able to reenter and accomplish more.

I still hear many colleagues say "let's just get **something** done." I believe this is wrong. We need to do it right or not do it at all. Half measures are proven to fail and engaging in them has great reputational costs. In the current climate of high-profile, catastrophic fires, I am not interested in fear mongering. But I am interested in applying our limited resources to only those communities that are fully committed.

It's *not* just about cutting trees in the wildland-urban interface.

Fuels crews are run by firefighters. Perhaps they should be run by architects. In retrospect, we spent far too much money on fuels reduction and not enough on assisting residents with the installation of fire-resistant building materials and landscaping. Few of the homes lost were directly impacted by crown fire; rather, embers undoubtedly ignited the fine fuels around them, which eventually led to the loss of entire structures. In many instances, residents would have been better served by our crew putting a decorative stone perimeter around the structure. Many residents are capable of cleaning gutters, but fewer can move tons of gravel. We had chainsaws, and we knew how to use them. We should have picked up our shovels instead.

Mitigation is an ongoing process, *not* an event.

We completed a number of projects that involved clearing trees on both sides of existing roads. What we did **not** do is involve stakeholders, such as the County Transportation Department. We removed the trees, but knee-high grass grew in their absence. Needless to say, these fuel breaks did not hold. Had the grass been seasonally mowed, I believe they would have.

Treatments are *not* complete until prescribed fire is introduced.

This is a correlate to the "doing something partially" lesson. Cutting trees and building slash piles without verified funding and resources to promptly burn the piles is not mitigation. It is simply rearranging the fuels into a potentially **more** hazardous situation. In several areas, our crew's piles were associated with complete stand mortality. We created ladders into the canopy. At best, these unburned piles represented a sad waste of money, and at worst, it is possible that if we hadn't treated them, these stands might not have carried fire.

For several projects, we built neat pyramids of four-foot logs, with the hope that residents would collect the wood for firewood. This wood wasn't removed, and instead, flaming logs rolled downhill, and in several cases jeopardized the safety of firefighters.

Transparent communication is *not* optional.

In retrospect, I think we could be fairly accused of unintentionally having over-sold the effectiveness of fuels treatments. For obvious reasons, we didn't want to dwell on the fact that even excellent mitigation isn't a complete guarantee. I now use the metaphor that mitigation is like airbags in a car. Airbags can save lives, but if you drive your car into a telephone pole at 90 miles per hour, airbags won't do much. In an era of climate change and commensurate extreme fire behavior, we have an ethical responsibility to be more forthcoming with residents about the limits of risk reduction.

Much of the work we did was effective, just not in the ways we had most prominently articulated. Evacuations were possible, and may not have been, had we not worked along roadway fuel breaks. (Not all of our roadway fuel breaks were repopulated by grasslands.) I believe this work contributed to the fact that none of the 3,000 evacuated residents were killed. Further, much of the area that we treated burned at a much lower intensity than the rest of the fire footprint saw, and the landscape experienced many positive ecological effects.

Communities *are* resilient.

To end on a positive note, much good came from the fire. Many residents did rebuild, this time with fire-resistant materials and techniques. The Four Mile Fire Protection District was able to rebuild their fire station, which was lost during the fire. Boulder County responded with the creation of the nationally recognized Wildfire Partners program. The recent Cold Springs Fire went much differently than the Four Mile Canyon Fire did, from both a suppression and structure loss perspective. Much of this growth is attributable to the excellent work that hundreds of people have advanced in the wake of Colorado's recent wildfire history. For me, I now cut fewer trees and am out of the "suppression game." I have redirected my career to getting as much good fire on the ground as possible.

Dave now works as the module lead for the Gravitas Peak Wildland Fire Module.

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Learn More

Fourmile Canyon Fire Findings

- Full report: https://www.fs.fed.us/rm/pubs/rmrs_gtr289.pdf
- Executive summary: https://www.fs.fed.us/rm/pubs/rmrs_gtr289/FourmileCanyonFireFindings_FactSheet.pdf

Wildfire Partners program: http://www.wildfirepartners.org/

Gravitas Peak Wildland Fire Module: https://www.gpwfm.org/crew-members/

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This story was originally published on the Fire Adapted Communities Learning Network (FAC Net) blog. FAC Net publishes blogs about community wildfire resilience weekly; visit https://fireadaptednetwork.org/subscribe/ to have more stories like this delivered to your inbox.

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