

The Marshall Fire: Genesee Fire Rescue's Experience

Genesee Fire Rescue (GFR) responded to the Marshall Fire with an engine company (four crew members) and spent 16 hours during initial attack fighting multiple structure fires. We want to share our experience with you, emphasizing some of the lessons learned to encourage and help our residents be prepared.

We often hear that the wildfire season is now year-round, that wildfires are growing both in intensity and size, and that 90% of homes destroyed by wildfires are a result of embers. While all of that is true, never before has Colorado experienced those realities to the degree that we did during the most destructive fire in Colorado history, the Marshall Fire. You don't have to live a forested area to lose your home to a wildfire.

We know that our community is at a very high risk for wildfires and that an incident will inevitably occur in Genesee or in the surrounding mountain communities. Many homes in our District are not in forested areas, but we know from the Marshall fire that you are still at risk from embers generated by the fire and that those embers can travel great distances. But we also know that it is critical not to fear these risks but to be educated, so that as a community we can mitigate those risks.

What can we do?

- Education:
 - Read your Community Wildfire Protection Plan (CWPP), <https://geneseefpd.colorado.gov/community-wildfire-protection-plan>, and partner with your GFR Wildfire Specialist, Dorie Dalton, ddalton@geneseefire.org.
 - Get involved in your local HOA community groups to promote wildfire education and action
 - Attend and actively participate in your Wildfire Plan Unit Presentation: <https://geneseefpd.colorado.gov/wildfire-info/plan-unit-information>
 - Get involved in Jefferson County to raise awareness of our shared risk and drive change
- Defensible Space and Home Hardening:
 - Again, work with your GFR Wildfire Specialist, Dorie Dalton, and begin to focus on the following three areas to protect your home:
 - Roofs - including gutters
 - Vents - to prevent embers from entering your home
 - Zero to five - remove all combustibles within the first five feet around your home

- Evacuation:
 - Opt-in to CodeRED and register all of your numbers, including cell phone numbers: <https://public.coderedweb.com/CNE/en-US/655AC5D55998>
 - Have a plan to evacuate: <https://geneseefpd.colorado.gov/evacuation-orders>
 - We are a one-way-in and one-way-out community. Support the construction of a secondary egress road that provides both an alternative means of evacuating and strategic firefighting benefits.
 - <https://geneseefpd.colorado.gov/community-wildfire-protection-plan-supporting-documents-and-videos>

Now, we invite you to “join” Engine 932 and four Genesee firefighters as we respond to the Marshall fire.

Much of the foothills were experiencing the high winds predicted by the National Weather Service (NWS) during the days leading up to December 30. Many of those windy days met the criteria for Red Flag days, days when the risk of wildfire was high and residents should be prepared in the event a wildfire hits their neighborhood. At 3:00am on December 30, the NWS extended the high wind warning to include the Denver Metro Area with predictions that wind gusts could reach 90 mph (actually wind gusts were measured up to 115 mph), the relative humidity was predicted to remain in the 20 percent range, so the weather conditions did **not** meet Red Flag Warning criteria.

Three brush fires were reported in Boulder County on December 30 at 10:10am, 10:27am, and 11:06am. Fire resources quickly contained and extinguished the first one, but both the second and third fires grew quickly, with flame lengths reported to be eight feet within seven minutes of dispatch and that the fire was moving quickly to the east. Once flames exceed four feet in length, it is no longer possible to attack the fire directly (“direct attack”), and once they exceed eight feet, crowning, spotting and major fire runs are likely and control efforts at the head of the fire are ineffective. Flames lengths above eight feet produce considerable radiant heat – enough to threaten life safety.

At 11:44am, reverse 911 alerted approximately 45,000 residents to evacuate. When wind and topography unfortunately align during a wildfire, the resulting fire conditions quickly exceed the ability for firefighters to directly fight the fire. Mountain View Fire Rescue Chief, Dave Beebe, reported that fire resources arrived in four minutes, the fire was located 11 minutes after that, and by then it was too late. “There’s just nothing you can do. You can’t even run fast enough to chase it,” Beebe said.

GFR was first made aware of the incident at 12:24pm on December 30 when a local resident reported smoke to the north. Fire resources investigated the call and confirmed that there were

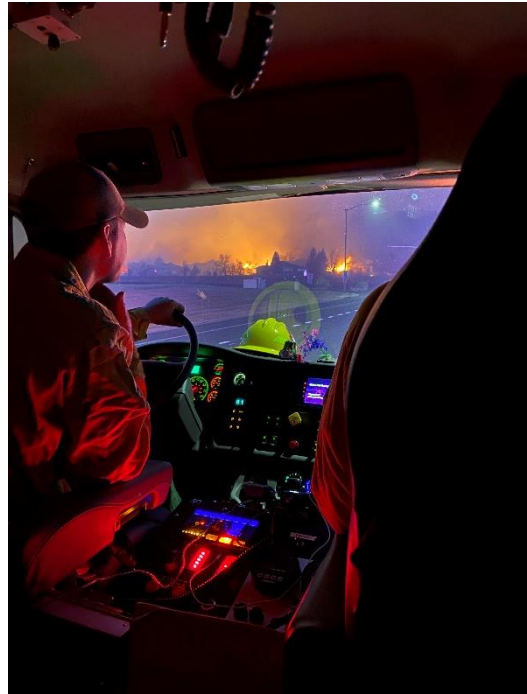
no local hazards, but a large smoke plume dominated the northern sky. We monitored radio traffic for several hours, and the reports were sobering as local resources stated that entire neighborhoods were being abandoned due to fire behavior.

At 2:20pm, GFR received a request from the Department of Fire Prevention and Control (DFPC) for a wildland urban interface (WUI) engine for structure protection. GFR Engine 932 with a crew of four responded to the staging location at Macy's at Flat Irons Mall at 3:10pm. On arrival at staging, the engine was assigned to a task force of eight fire engines and one task force leader.

Engine 932's initial assignment was to hold the fire and ember storm from crossing over S. Indiana St. at its intersection with Coalton Road. Josh Boyles, driver/operator, remembers that experience. "An eye opening moment for me was when we were driving to our first assignment. We were on a four-lane road in the city of Superior, with flames licking across the road and dense smoke. I had no idea where the road was. I felt like we were driving over Berthoud Pass in the middle of the night in a blizzard, and my gut reaction was to slow down. Unfortunately, in a situation like this you simply can't slow down as you risk getting burned over. My engine boss urged me on saying, "I don't care, follow the flashing lights on the engine in front of you!"

West of S. Indiana St. were dozens of homes that were fully involved with fire, resulting in an ember storm that was being blown to the residential community east of S. Indiana St. Embers were carried by the air currents and eddied and swirled around homes, decks and fences. Most landed harmlessly, but those that landed on tarps, patio furniture, gutters and the like ignited those materials and spread quickly to the home unless extinguished. Peter Greenstone, crewmember, stated after the fact, "As I made my way into the backyard, a blizzard of embers blew past me directly toward the house. It rushed up and around the roof and sides and under the eaves and the decks like a torrent, and every little thing that could catch fire around the house was on fire."

The second assignment was in the Rock Creek neighborhood. Engine 932 was first to arrive on scene of a row of eight homes fully involved with fire and the adjacent homes just beginning to ignite.



GFR arriving at first assignment

We made the difficult decision of identifying which home to make our stand and attempt to control the fire so that it wouldn't ignite the next home. Bob Dalton, crewmember, said while thinking back on the incident, "What I saw carrying the carnage was largely man-made. The fire was spreading through the neighborhood along fences and from embers thrown by adjacent homes, etc. Radiant heat is so important in carrying the ignitions to our neighbors."



GFR arriving at the second assignment

Homes were close together, less than 10 feet apart, so crew members had to fight the fire in the narrow corridors between the homes. Peter Greenstone recalls, "We were told to stop the fire from getting past this house which was at the end of a long line of fully engulfed houses. We made a stand there. The garage and roof above were burning with such intensity that our water streams seemed to have little effect. We knew we couldn't save this house, as desperately as we wanted to, but we needed to reduce the heat it was giving off enough to stop it from igniting the next house just feet away".

As additional resources arrived, they were first assigned to the other end of the row of homes and then to the center of the row for extinguishment. As containment improved and more resources arrived on-scene, Engine 932 was assigned to another structure fire one block away. Similar tactics were used to contain the fire that was growing both in the basement and in the attic. This continued until approximately 11:00pm, when the winds calmed and the rate of fire spread decreased dramatically. The rest of the night carried forward at a slower, more



Working between homes to stop the fire from igniting its neighbor

methodical, pace as all that was left to do was working to put out the fires that were still burning in the charred and smoking ruins of the decimated houses.

The GFR crew and Engine 932 both performed incredibly well. The crew was relieved by the next shift at 7:00am on the next morning. For 16 hours, the crew fought numerous structure fires and were ready for a shower and some sleep when they returned to Genesee. The days that followed included a formal after-action review at GFR and a lot of informal discussion about how we can bring back what we learned in Boulder to Genesee.

The Marshall Fire reinforced the fact that each group of homes is only as strong as its weakest link. Partner with your neighbors, your street, and your plan unit to work together. GFR is committed to building resiliency within our community, so please use us as a resource.

Special thanks to the crew of Engine 932:

Josh Boyles, Peter Greenstone, Bob Dalton, and Jason Puffett

Jason Puffett

Fire Chief

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Reference : Colorado Public Radio. January 5, 2022. Boulder County Marshall Fire Timeline.
<https://www.cpr.org/2022/01/05/boulder-county-marshall-fire-timeline/>