

Hazard / Definition

Wildfires:

A highly destructive fire or any instance of uncontrolled burning in grasslands, brush or woodlands.

Description / Frequency

Wildfires can occur at any time of the year, but are most likely to occur during the spring, summer or fall. Thunderstorms that contain lightning usually start wildfires, or they can also be caused by humans.

Historical Score: 4

Boulder County has a history of forest fires dating back to June 29, 1916 when 1,000 acres burned around Bear Mountain. On July 5, 1924, 1,600 acres burned near Nederland. Fire caused by lightning burned more than 1,000 acres in the Northwestern part of Boulder County in Rocky Mountain National Park on August 9, 1978. On October 6, 1980 a fire caused by an arsonist burned 150 acres in the Pine Brook Hills Subdivision and a \$150,000 home was destroyed.

Five *major* wildfires have occurred since 1988:

Lefthand Canyon and Beaver Lake Fire - September 1988:

The Lefthand Canyon Fire and Beaver Lake Fire occurred in September of 1988 in the canyon above Buckingham Park and close to Beaver Lake near Ward. Approximately 1,500 acres were burned in Lefthand and 700 acres at Beaver Lake for a total of 2,300 acres. Houses in the area were threatened, but no structures were lost. The fires were believed to be man-caused.

Black Tiger Fire-July 9, 1989: The Black Tiger Fire destroyed 44 homes on Sugar Loaf Mountain and burned over 2,100 acres. The Boulder County area was experiencing very hot temperatures, low humidity and gusty winds. Conditions were just right for a wildfire. The fire was man-caused.

Olde Stage Road Fire - November 24, 1990: The fourth major wildfire was the Olde Stage Road Fire. The fire started when a man with a history of mental problems threw a burning mattress out his front door. Winds gusting to 80 mph fanned the fire out of control. Ten homes, five out-buildings and approximately 3,000 acres burned.

Mitigation Options / Strategies

- Stricter building codes were put in place following the Black Tiger Fire.
- The City of Boulder banned wood roofs within the City and home owners have 20 years to change roofing materials. If a roof is 40% or more damaged, it will have to be replaced with some material other than wood.
- Following the wildfires, the Boulder County Commissioners formed the Boulder County Wildfire Mitigation Group. A subcommittee of this group; the Wildfire Hazard Identification and Mitigation System (WHIMS) task force uses a GIS based tool to assist in the identification of hazards in the wildland/urban interface. Ownership data, structure data and other physical data are combined with a hazard rating survey of individual properties. The result of this information is a hazard rating map for identifying risks and monitoring mitigation activities, as well as actual wildfire modeling. WHIMS is used to educate, motivate, and assist homeowners and firefighters in mitigating wildfire hazards and preparing for future wildfire incidents. The Pine Brook Hills Subdivision was used as a model.
- A "Road Show" team of the WHIMS group instituted an awareness campaign to educate the public about wildfires. Presentations are given to different groups throughout the State of Colorado.
- Prescribed burns to combat fire danger are done when conditions are satisfactory. Seasonal crews are used to thin and clean up forest areas.
- Fire bans are initiated during periods of dry, hot weather. Daily fire danger ratings are used during the fire season.
- A full-time Wildfire Mitigation Coordinator for Boulder County was hired in 1995.

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Walker Ranch/Eldorado Fire - September 15, 2000: The first major fire since the Olde Stage Fire in 1990 occurred on Walker Ranch following a summer with little rain and extreme temperatures. The fire burned approximately 1,100 acres and was probably human caused. Even though there were over 250 homes in the area, no structures were lost. Firefighting costs were estimated at \$1.5 million. A FEMA fire suppression declaration was made to help cover firefighting costs.

Overland Fire/Jamestown – October 29, 2003

The fire was likely started by the top half of a tree sheared off in 60 mph winds and fell onto a power line located on or near the Burlington Mine clean up site in Jamestown. High winds and dry weather conditions existed. 3,500 acres were burned, 12 residences and several outbuildings were destroyed. Firefighting costs were approximately \$400,000.

Other Fires over 50 acres:

11/1/1964: Near Eldorado Springs (100 acres)
5/28/1974: Near Gold Hill (160 acres)
6/1976: Comforter Mountain (256 acres)
8/1979: Coal Creek Canyon (50 acres)
9/21/1984: USFS Land near Lyons (60 acres)
8/01/1987: Between Boulder and Lyons (50 acres)
11/04/1987: Southwest of Highway 36 (100 acres)
2/21/1988: Sunshine Canyon (200 acres)
9/07/1988: North of Ward (160 acres)
7/15/1991: West of Boulder Hills Subdivision
Six miles North of Boulder (135 acres)
7/14/1994: Near Ward (50 acres)
9/03/1996: Rabbit Mountain-Lyons (50 acres)
7/19/2002: Wonderland Lake (400 acres)
9/01/2005: North Foothills Fire (55 acres)

The summer of 1994 was one of the driest on record, causing the wildfire threat to be high. Boulder County's fires were contained before they got too large partly because of a single engine air tanker stationed at the Boulder Airport. Fire bans were put into effect and an Inter-Agency Task Group was formed when the threat of wildfires increased in the county.

The summer of 2000 was very dry and hot in the western part of the United States. Many small fires occurred in Boulder County during the summer months. Even though many of them were relatively small, they were hard to reach areas. Air support was available because of fires in surrounding areas so responders were able to get them under control quickly.

Potential Score: 5

The potential for wildfires has increased over the past few years due to development in the mountainous areas of Boulder County.

Mitigation Options / Strategies

- SCC Communications and US West partnered together for a warning and evacuation system for Boulder County. It is called the Emergency Warning and Evacuation Service (EWES) and is part of the Emergency Preparedness Network (EPN). The existing 9-1-1 address and telephone database is used in combination with detailed maps to help determine the geographic boundaries of an area impacted. The system is capable of calling up to 2,000 numbers in one minute. It is designed to deliver recorded information to endangered people in advance of a disaster or any major event. Messages can be delivered in various languages, as well as to pagers or the Emergency Alert System (EAS). Multiple floodplain areas can be handled during a single event with priority given to the area most impacted.
- The Boulder County Multiple Agency Coordinating System (MACS) group, consists of representatives from all agencies and jurisdictions within the County. This group makes plans and agreements for the procurement of resources needed during emergencies.
- Videos and brochures available for information to those living in areas prone to wildfires include:
 - (1) "Living With the Reality" produced by the Boulder County Branch of the American Red Cross.
 - (2) "Safescaping" produced and funded by Boulder County and the Boulder County Fire Fighters Association to assist homeowners on how to create a defensible space around their homes.
 - (3) "Wildland Fire Dangers," a brochure providing a checklist for safety and survival .
 - (4) "Living in the Wildland/Urban Interface (series of 3 brochures mailed to all mountain residents).

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The immediate danger from wildland fires is the destruction of timber, property, and injury or loss of life to humans. Major fires can destroy ground cover, causing erosion or landslides to occur when heavy rains follow a major fire. Once trees are gone, there is nothing left to hold the soil in place.

Major fires in Boulder County caused extensive damage to property, but no lives were lost. The Lefthand and Beaver Lake fires cost approximately \$745,000. The Black Tiger Fire on Sugar Loaf Mountain cost around \$11.3 million (includes \$1.3 million for suppression). Over one-half of the forty-four homes that were destroyed were not covered by insurance. Low interest loans were made available through the Small Business Administration (SBA). The cost of the Olde Stage Road Fire was around \$1,300,000. No structures were lost in the Walker Ranch/Eldorado Fire and firefighting costs were estimated at \$1.5 million.

Mitigation Options / Strategies